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Magyar-Haas - Yilmaz

Direction / Editor
Guy Tchibozo

ANALYTRICS

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The Paradox of the Circle as a “Good” Educational Mode

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Abstract

Participants in circle rituals are exposed to other people looking at them and have little possibility to evade this surveillance. The others' looks constitute the self, but they also make one feel ashamed, which shows the objectivating nature of looks. Based on a contrasting analysis of the field notes from two ethnographic studies at different educational institutions, this contribution will focus on this paradox nature of the circle between subjectivation and de-subjectivation. The paper will examine the following questions: Which ways of the participants' (de-)subjectivation are made possible or are prevented by different ways of intervening practiced by education professionals? How do children and adolescents deal with the paradox nature of circle situations in the context of certain power relationships? The interpretation yields insights into the specific connection between the educational-material formation, disciplinary techniques, and power.

Keywords: ritual – power – (de-)subjectivation – disciplining – ethnography

1. Introduction

Primarily in the context of the kindergarten, primary school and youth work, circle rituals characterize and structure everyday educational life. The goals of circle rituals are the experience of mutual affection, equal rights, the softening of hierarchies, and more. Based on a contrasting analysis of a morning circle at a kindergarten and a circle meeting during a dancing project at an open social education institution for girls, this contribution will point out what core paradoxes are constitutive, across institutions, and how the ways in which actors deal with these paradox situations are reshaped.

From a performative theory point of view, educational reality is constituted by what happens in the course of performative acts (Austin, 1962/2002) that are staged in a ritualized way by social actors (see Wulf & Zirfas, 2007, p. 17). Circle rituals of the kind that are the focus of this analysis may be considered to be exemplary for the all in all strongly ritualized nature of the educational institutions kindergarten and open social educational institution. For the reconstruction of circle rituals, two of the social functions of rituals as worked out by Wulf et al. (2001) prove to be helpful: First, rituals produce collectively shared knowledge and action practices and reproduce them by way of this social order (see Wulf & Zirfas, 2001, p. 198). Second, due to their staging nature they establish exclusions and thus produce community (p. 204). In our opinion, what

is crucial for determining rituals is not superficially their regularity but rather their significance for the social. Also, what is constitutive for the ritualized staging of educational everyday life is the "physical co-presence of the people contributing to the event who commonly perform an action" and, by way of bodily-mimetic processes, produce a commonly shared reality (Wulf & Zirfas, 2007, p. 17).

If, according to the performative view, one understands the reality of educational everyday life as being created collectively by the children and adolescents together with the education professionals, then at the methodological level, the question of the how of these collective stagings is the focus of our empirical reconstruction. Accordingly, dense descriptions (Geertz, 1973) of educational everyday life were given in the course of the two ethnographic studies, which are located in the reconstruction of meaning paradigm. The interpretation of the data material was conducted using a sequential analytical procedure, in that the material, following suggestions developed by grounded theory (Strauss & Corbin, 1996), was coded in the following sequence: open coding, axial coding, theoretical coding.

2. Scenes

2.1 Morning circle at the kindergarten

What constitutes the ritual of the morning circle in this kindergarten group is that it always starts in the same way, in that the names of the children, present or absent, are called out in a playful way. By way of this ritual, the group is created performatively. The scenes presented in the following reveal how this constituting of the group is continued by means of the staging of a formalized circle game, and how the children are in addition verbally and physically introduced to the valid norms of behavior of the morning circle. The following scenes were selected to show fragile moments in these stagings. The focus is on situations in which (game) processes that usually run smoothly are interrupted, which prompts the educators to intervene in special ways.

(...) For the next game, "Turn, small spinning top, turn", Mirja chooses Hannah as the next player. At once Hannah covers her face with her hands and, in a tearful voice, says, "no, no, no," while shaking her head. "Should somebody else do it instead?" Irina, the educator, asks. Silently Hannah shakes her head. Then Irina tells Mirja: "Then do it again, Mirja." Once more, Mirja turns around, pointing with her forefinger, and chooses another child. Hannah takes her hands down and loudly joins the singing during the next rounds. (...) When she is chosen for the third time, Hannah again covers her face with her hands and shaking her head says, "No, no, no." Angelika, the other educator, tells her: "There's no need to cry, Hannah. You don't have to do it. Who should do it instead?" "No, no, no," Hannah continues, still shaking her head and not looking. "Shall I do it instead?" Angelika asks. "No, no," Hannah shakes her head. "OK, Tami, then you do it again," Angelika says.

(...) Then, several children, one after the other, present songs. Meanwhile, Mirja stands up again and again, (...) turns around, goes to Irina, and sits down on her lap. Then she stands up again and takes one step out of the circle. Irina holds her and draws her back onto her lap, saying silently, "Psst. Mirja, Hamid is singing a song." Mirja makes a squealing noise, makes a face, and is now lying across Irina's lap. She stretches her arm towards a small chair that is not far from the circle. Irina holds her, saying, "No, Mirja, stay" and "What is it that you want?" Again Mirja stretches her body towards the small chair. Irina tells her, "Wait, Mirja, stay here a while. Later you may do that" and holds her on her lap for a short time until finally circle time comes to an end. (...)

2.2 A dance project at a youth center

The dance project starts with a preparatory meeting, during which the six girls, ages 11 to 15, without having been asked, sit down in a circle in the almost empty room. The way of negotiating as well as insisting on valid rules for the circle formation constructs this meeting as an educational setting. The following scene shows, how power relations and disciplining strategies are connected to performatively constituting the group.

"Also, you must decide – yes, Renan, you, for example – do I want to participate or not, all right? Also you, Annemarie, and then you will have to come every time. And Indira, do you want to participate now, always?" Tamara, Sozialpädagogin, or social education worker [SE 1], asks each the girls who are sitting in a circle, addressing each of them individually. "Yes, I know this class, Ethel has shown them [the dancing steps] to me," Indira says. "But Ethel is not here at all," another girl shouts. "Well, exactly, well. Now this is something more serious, because it's also a group, and you must be able to rely on each other now," Tamara says. "Well, I would like to say something about relying on each other. For example, there are a few people," Üzgül starts saying, after having had her hand up the whole time. "Now please listen to Üzgül", the social education worker says, when two girls starting talking to each other. Üzgül goes on: (...) "for example, as Olga [another social education worker, SE 2] said, we want to do a presentation of the dance. But if some of us don't come, I think this is dumb, because, what is the point, what is the point of this class?" "Yes, that is exactly what I've just said", Tamara [SE 1] says. "Yes, I think it is dumb that they won't come, because if we always have to stop because they haven't learnt it yet, then I certainly don't know, then somehow they shouldn't be allowed to dance with us because" "Yes, exactly, girls who do not come regularly and don't know the dance will simply not be allowed to perform with us," says the social education worker. "But what if somebody is ill?" Renan asks. "Then that's different, but still, if she doesn't know the steps...", Tamara [SE 1] replies. "Umm, Olga," Üzgül does not finish her sentence and lifts her arm. "It will look stupid if everyone knows the dance steps and one girl doesn't, won't it? (2) That is why you must show the others the steps more," the social education worker continues. (...)

3. Formations of the Material and the Symbolic Circle

Circle rituals serve the constituting of groups, both in the spatial-material and the symbolic-immaterial sense. If the former is constituted by the spatial-material arrangement of the participants' bodies forming a circle, then belonging functions as a criterion for the latter. Although in both settings physical presence means an obligation to take part in the circle ritual, at the same time it proves to be a fragile constitutional feature of belonging to the group, to the symbolic-ideal circle. The setting at the kindergarten is precisely also about communicating to the children that also children not present are part of the group, in the dance project by contrast, it is negotiated via the present girls present themselves, to what extent they are legitimate members of the symbolic circle. For the kindergarten, the formal aspect of being enrolled functions as the criterion of belonging to the group, and taking part in the circle is binding without question for all children present. For the voluntary dance group, in contrast, declaring to take part regularly proves to be a necessary, although not sufficient, criterion, for the young people are supposed to deliver performance and accept majority decisions. In this respect, belonging to the dancing group appears precarious and potentially shaming. At the day nursery the formal circle is the more strongly topic of discussion among children and professionals, in the dance group, via the discussion on ideally belonging to the group, the focus is primarily on the constitution of the symbolic circle. Thus, in both contexts it is not only about the in situ observable, formal-material circle, but also always about a symbolic, ideal circle, which is performatively created by the material formation.

4. Paradoxes of the Circle

Thus, circle situations have not only a formal but also an ideal group-constituting function. Viewed from the outside, this material formation presents itself as a closed entity that is seldom broken up, and only to let in legitimate members. Towards the inside, the circle is open; in both the kindergarten circle and the educational setting of the dance project the participants in the circle rituals are with their whole bodies always potentially exposed to the surveillance of others. In this way the circle provides protection against the "outside", but not against the "inside," for the possibilities to evade the group members' looks are limited, and there is a certain degree of protectionlessness. This intimating construction provides a stage for the children and adolescents to produce input, to create an image, but also to lose face, if this space of presentation changes into a space of "being on exhibit," or "being presented." The analysis of further records showed that at both the kindergarten and the dance class, determining the phenomena of "presentation" and "being presented" functions as core elements or core paradoxes of the ritualized circle situations, which here, in a situation of being looked at, with the constant possibility of being looked at and thus being caught out, are explained in more detail as the paradox of subjectivation and de-subjectivation processes.

The objectivating and at the same time subjectivating nature of "the look" (le regard) is particularly relevant for Jean-Paul Sartre's analyses. In *Being and Nothingness: An Essay on Phenomenological Ontology*, Sartre (1943/1966) explains the extent to which the constant possibility of being seen by the Other

may objectivate me – not for myself, however, but for the Other (p. 343, p. 364). The look is at the same time subjectivating, due to a feeling of being accepted as a living, personal existence, as a subject. At the same time, however, it is the look of the Other that can make us feel shame. With the circle formation, the potentially shaming nature of the situation is particularly increased, due to fact that possibilities to evade are restricted. With this formation there is no outstanding observing position, as Michel Foucault (1977) worked out for the Panopticon; instead, everyone participating in the circle is raised to a potential observer. Accordingly, for the analysis of circle situations, the term Zentrorama used by Gunnar Schmidt (2003) suggests itself: an observed focal point, where the subject becomes blind and knows that it is being made the object of a multitude of looks. In this contribution, this focal point is not grasped as geometric but as symbolic, in the sense of a guided (attention) focus on certain participants in the circle. The two recorded settings reveal the unequal power relations that are entailed in this construction of the symbolic center.

In both of the settings, this centering, this becoming a focus, takes place through the children and young people being looked and through their being addressed by name. As in circle situations there is highlighting of the individuals, individual children are made the focus of attention, made the symbolic center; they are in the spotlight, so to speak, and thus subjectivated. At the kindergarten, this occurs when the educators address the child by name who is not acting in accordance with the rules. During the dance class, this happens when three out of eight girls of the group are addressed by their names and are asked to attend the group meetings regularly. De-subjectivation results when those being addressed individually by looks and by their names are put on display with their (for the time being) inabilities or shortcomings. The shaming nature of such de-subjectivation processes is evident in that the participants here are constructed in front of everybody as children who are not yet able to correctly say the game question or as young girls who are unreliable attendees. What will be interesting in the following is, first, the possibilities of the children and young people to evade this structurally powerful, centroramic, educational setting, and, second, the interventions and disciplining that are applied to mark certain ways of evading as legitimate or illegitimate.

5. Ways of Dealing with the Paradox Circle Situation

5.1. Legitimate and illegitimate ways of evading

For the material and the symbolic formations of the circle, the paradox of the look proves to be a constitutive, although the individual's possibilities to evade diverge strongly.

As to the morning circle at kindergarten, the participants struggling to (il)legitimately evade happens primarily at the level of the formal-material circle. Hannah evades the attention directed at her through verballity, by way of her massive "no, no, no" and her crying.

Both the material formations of circle and space and the additionally implied norm of not leaving the circle function as limitations of physical possibilities to evade. Covering her face, the most symbolic part of the body, Hannah evades the others' looks as an entire person. Presenting this gesture several times means an almost absolute evading, which is marked as legitimate by the educator's permissive way of acting. On the other hand, Mirja's attempt to completely evade the formal-material circle by breaking out is constructed as being illegitimate through Irina keeping hold of her body. This sanctioning makes the previously implicit norm is now explicit.

If at the kindergarten evading from the formal-material circle on the whole happens by physical ways of evading, with the dancing project, on the other hand, it happens first of all through verblivity. When Indira, by being addressed by her name and being looked at, is made the focus of everybody's attention by the social education worker, she turns the focus from herself to Ethel, another girl who is not present. The harsh intervention by another girl: "But Ethel is not here at all," marks this attempt at distracting an illegitimate way of evading. In contrast to the very much adult-structured and adult-dominated kindergarten, where exclusively the professionals mark legitimate and illegitimate ways of evading, with the dancing project this is done collectively. Indira's attempt to move out of the focus of attention nevertheless comes along with stylizing her as a legitimate, ready-to-perform member of the symbolic circle. She refers to Ethel as having already shown her the dance steps. The strong need for negotiating legitimate and illegitimate ways of belonging to the symbolic circle of the dancing group is expressed by Renan's hypothetical question, "But what if somebody is ill?" Here it is about testing legitimate reasons for not attending the formal circle without losing symbolic membership.

5.2. (Power and) Disciplining

Particularly Foucault pointed out the essential meaning of disciplining mechanisms at and for educational institutions. From a historiographic point of view Foucault reconstructed how disciplining at school succeeded at making the children's bodies the subject of highly complex manipulation and conditioning (Foucault, 1978, p. 43). What he considers constitutive for disciplining at school is mutual and hierarchized observation, and thus Foucault (1975/1977) locates an "organized surveillance relationship" at the "center of the teaching practice" (p. 228). In contrast to traditional classroom instruction at school, this surveillance relationship is increased in the circle formation, due to its "centroramic" nature, which already has a disciplining effect due to the potential for being observed. Furthermore, in both educational settings the children's and young people's body and behavior practices are normed and normalized through a variety of disciplining actions by the educators.

Sitting on the educator's lap may be seen as a subtle, disciplining strategy that is then also explicitly and verbally expressed ("No, Mirja, stay here") when the child threatens to break out of the circle formation. The teacher's taking hold of Mirja's body makes leaving the circle illegitimate and draws a clear boundary. At the kindergarten, disciplining and regulating happens exclusively at the level of the formal circle, which as a place the children may not leave. Belonging to it

ideally is not a topic of discussion but is actively practiced by way of the material formation, although without making it further explicit. In the dance project, the ways of disciplining refer primarily to the symbolic circle, not to the ideal group; they are of purely verbal nature and much more subtle. Unquestioningly, so to speak as a matter of course, making the young girls form a formal circle prominently indicates an already practiced degree of self-disciplining. Üzgül's initial question about the point, "What is the point of this class?" refers to the final result: the dance presentation. Latently, the statement by the social education worker, "it will look stupid," refers to being looked at by outside observers and is of a disciplining nature. Subjectivating the dancing group as being successful is definitely necessary, in order to not be shamed in front of an imagined audience, which would be equal to de-subjectivation. By referring to the audience and the group as a whole, the formal, social, and normative criteria of belonging to the symbolic-ideal circle are legitimated.

At the kindergarten, the highest degree of disciplining in the sense of forced inclusion is physical holding of the child, to keep the child in the circle. In contrast, with the dance project, potentially exclusion from the symbolic circle functions as the highest degree of disciplining. It seems as if negotiating belonging and exclusion works as a strategy to reproduce the norms like reliability, willingness and the acceptance of majority decisions. The clearly hierarchically structured power relation between professionals and children or adolescents is reflected, among other things, by the educators' unrestricted right to speak and intervene, for no reasons must be given, and it is also unequally distributed. The adults set valid norms of behavior for the circle, without of the need for any negotiations and without any need to explicitly formulate them as rules. In stark contrast to the dance project, where rules are legitimated by referring to the unity of the group's majority decision, at the kindergarten no justification of existing rules seems to be necessary.

6. Prospects

The previous considerations regarding the paradox circle situation can be systematically theoreticized using De Certeau's distinction between 'strategy' and 'tactic,' which De Certeau applied to the analysis of possibilities to combine ways of acting (De Certeau, 1980/1988, p. 12). Through this, the focus of the analysis shifts from the subjects – the professionals, children, and adolescents – to the possible types of action within the educational setting of the circle.

'Strategy' requires a subject of will and power and assumes a place that can be circumscribed as proper (propre) and that is dominated by seeing (De Certeau, 1980/1988, p. 88). Accordingly, perfect for this is the circle over which the educators and in which all participants are visible and observable to each other. Precisely by dominating places through seeing, strategies can create certain types of acting and can force them upon 'those ruled,' as the material presented here showed, for example by the normed practicing of the organized course of games or by being forced to participate consistently in the dance project. In both settings, the strategy of the professionals is based on their ways of disciplining, with the goal of staging both the material and the symbolic circle "according to the norms."

A 'tactic', on the other hand, is for De Certeau characterized by both the lack of a proper (a spatial or institutional localization) and the lack of power (De Certeau, 1980/1988, p. 89f). Accordingly, tactics themselves are not able to produce any types of acting; all they are able to do is to tactically exploit, manipulate, and remodel (p. 78) the strategically enforced types of acting. Thus, tactics may be read as successful tricks of the 'weak' within an order established by the 'strong' (p. 92), the former scoring a coup through skillfully exploiting time and waiting for a favorable situation (p. 90). In this sense, both at the kindergarten and in the dance project attempts to evade may be interpreted as tactical action.

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Exploring Preservice Teachers' Digital Literacies Through Wikis

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Abstract

This investigation explored the digital literacy demonstrated by fifty preservice teachers engaged in problem-based learning. Using a case study design, the research examined the interaction and collaboration between and among students in methods classes as they created wikis as tools for identifying solutions to content-bound, open-ended problems in social studies and science. Data included interviews conducted with participants at the beginning and conclusion of the wiki project and activities documented in wiki page histories such as adding, editing, questioning and deleting information. All data were analyzed within Dresang's framework for Radical Change (1999, 2005, 2009). Results indicate that preservice teachers had the skills needed to use wikis as tools for communication and recognized the potential of wikis as meaning making tools; however, students were unable to construct new knowledge through the wikis. Findings suggest that meaning making through wikis requires facilitation and repeated practice.

Keywords: Digital Literacy-Literacy-Teacher Education-Wiki Technology-Radical Change Theory

1. Introduction

According to the National Council of Teachers of English (NCTE, 2008) "proficiency with the tools of technology" and the ability to "create, critique analyze and evaluate multi-media texts" are among the key characteristics of 21st century literacies (p.1). Evidence shows that K-12 teachers are developing and using these 21st century literacies and finding ways to foster them in their classrooms. In fact, a 2009 survey of over 1,400 teachers found that "[m]ore than three-quarters (76 percent) of K-12 teachers report that they use digital media in their classrooms" (PBS, 2009, p. 2). These teachers value a wide range of digital media from video to interactive lesson plans and "have strong positive attitudes about the effects of digital media on their own teaching and on students' engagement and achievement" (PBS, 2009, p. 5). As the digital divide decreases (NCTE, 2009) and the number of teachers using digital media personally and professionally increases (PBS, 2009), an exploration of preservice teachers' digital literacy seems imperative.

2. Perspectives/Theoretical Framework

Our understandings of literacy were framed in a sociocognitive perspective of literacy and learning (Langer, 1987, 1989, 1990a, 1990b, 1991, 1995). Drawing

on the work of Rogoff (1990), Vygotsky (1962, 1978) and Wertsch (1985, 1991), this perspective considers all learning to be social in nature. Individuals become members of literate communities when they learn to use language through tools such as reading, writing, speaking and listening for the purposes of communicating and constructing knowledge. These tools are developed, valued and fostered in ways that are appropriate within a specific cultural context whether that context exists online in real time, virtual time or face to face. From this perspective, individuals develop the tools for literacy through interactions with other community members who model ways of knowing that are appropriate in their particular context. Based on this notion of literacy, digital literacy is the ability to use language through Web based tools such as wikis, blogs and interactive whiteboards for the purposes of communication and knowledge construction.

This perspective of digital literacy guides our investigation of the ways in which digital literacy is demonstrated through wiki technology. It is framed by Dresang's theoretical principles of Radical Change: *interactivity, connectivity and access*, and the information behaviors related to *changing forms, perspectives and boundaries* that grew out of the theory (Dresang, 1999, 2005, 2009; Dresang and McClelland, 1999). While Radical Change theory originally developed as a response to children's experiences with literature, it has applications to digital texts. These principles and behaviors articulate the skills and experiences associated with living in a digital world.

Dresang (2009) defines *interactivity* as "dynamic, nonlinear, and nonsequential learning and information behavior" that provides "an increasing sense of control by end-users" (p.27). When understood within the context of the information behavior related to *changing form*, we see that content, format and style are ever changing in the digital world. Texts may be print, not-print, aural or visual. They need not be rule governed. They are never static.

Through the *principle of connectivity* one is embraced by a "sense of community" and can participate in the "construction of social worlds that emerge from changing perspectives" (p.27). This means that *changing perspectives* becomes a consistent information behavior through the exchange of multiple and "previously unheard voices" (p.29). In the digital world, this is evidenced through the texts created in social networking communities such as Facebook.

The *principle of access* "refers to breaking longstanding information barriers, bringing entrée to a wide diversity of formerly largely inaccessible opinion" (p. 27). This narrowing of the digital divide is best observed through information behavior related to *changing boundaries* (p.29). Based on this principle, all members of the digital world are invited to be both consumers and producers of information regardless of age, gender, interests or assumed expertise.

As technology continues to permeate every aspect of knowledge acquisition and knowledge use, both in and out of the classroom, the theory of Radical Change and its resultant behaviors articulates and informs the skills and dispositions necessary for developing 21st century literacies in an ever increasing digital world.

3. Literature Review

According to the sociocognitive perspective of literacy that guide this study, individuals develop the tools for literacy through interactions with other community members who model ways of knowing that are appropriate in their particular context. Based on this notion of literacy, digital literacy involves effective communication and knowledge construction through active membership in Web based communities and skilled use of Web based tools such as wikis, blogs and other changing and developing information and communication technologies (ICTs) (Coiro, Knobel, Lankshear, & Leu, 2008; Lankshear & Knobel, 2003; Leu, Kinzer, Coiro, & Cammack, 2004; McKenna, Labbo, Kieffer, & Reinking, 2006; McPherson, Wang, Hsu & Tsuei, 2007). Position statements of national organizations such as the National Council of Teachers of English (2008) and the International Reading Association (2009) reflect these newly developing notions of literacy.

Wikis are uniquely suited for the exploration of digital literacy. Wikis serve as the tool through which members of the digital world, as both author and audience, are able to access, share and exchange ideas. Wikis have the potential to become the texts that convey newly constructed knowledge of a community. In this way, Wikis reflect the principles and behaviors of Radical Change Theory (Dresang, 1999, 2005, 2008) and may be Radical Change texts.

The literature related to the use of wikis in educational settings ranges from anecdotal descriptions to empirical research. All of it provides insight into the use of wikis as tools for acquiring and constructing knowledge in academic settings. Whether describing the use of wikis in K-12 (Borja, 2006; Luce-Kapler, 2007; Morgan & Smith, 2008), undergraduate (Cole, 2008; Lundin, 2008; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008) or teacher development settings (Engstrom & Jewett, 2005), authors describe wikis as collaborative, malleable, inquiry tools that can promote student-centered knowledge acquisition and construction through the inherent seeking, sharing and revising of ideas. It is these characteristics combined with the assumption that most learners in the 21st century are "digital natives" (Prensky, 2001) that prompt educators across all levels to use wikis (Borja, 2006; Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007; Morgan & Smith, 2008; Wheeler, Yeomans & Wheeler, 2008).

Bringing digital literacy tools typically used to engage in authentic, out of school contexts into the classroom has its challenges. Most authors concluded that wiki users of all ages need an orientation to wiki technology for school purposes (Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007; Wheeler, Yeomans & Wheeler, 2008). They noted that some learners experienced difficulty using wiki technology. Undergraduates (Cole, 2008) and teachers alike (Engstrom & Jewett, 2005) reported trouble uploading, editing and browsing. Students required to use wiki tools for school purposes did not have high motivation for or interest in the task (Cole, 2008; Wheeler, Yeomans & Wheeler, 2008). In fact, Cole (2008) reported that only 68% of students had actually logged on by midterm. Of that group, no one had posted information. They cited lack of time, lack of willingness to share and critique ideas and lack of confidence in their work

as additional reasons for not participating (p. 144). These students also reported feeling that the wiki was not relevant or necessary to the course or to their learning. Luce-Kapler (2007) and Wheeler, Yeomans & Wheeler (2008) noted that wiki users also experienced difficulty due to uncertainty about the expectations of the assignment.

Teachers can meet the challenges of using digital tools to develop literacy by providing modeling and scaffolding that is typical of effective instruction in any classroom (Cole, 2008; Engstrom & Jewett, 2005; Luce-Kapler, 2007). Teachers need to model critical thinking and information literacy skills (Engstrom & Jewett, 2005). Assignments need to be contextualized within the curriculum in order to be purposeful (Cole, 2008). Wikis need to be included because they are necessary rather than simply because they are trendy (Cole, 2008; Wheeler, Yeomans & Wheeler, 2008).

This literature demonstrates that wikis have the potential to promote high level thinking and knowledge construction. If this is to happen, teachers must provide appropriate directions, scaffolding, opportunity and feedback. They must model the use of digital tools for digital literacy. To do this, teachers must themselves be proficient with these tools and possess digital literacy. Understanding the digital literacy of preservice teachers seems to be a logical next step.

4. The Case Study

We explored the digital literacy of preservice teachers' through a nested case study using purposive sampling. Invited participants included graduate and undergraduate preservice teachers enrolled in teacher education programs at a small liberal arts college in Northeastern United States. Twenty-seven undergraduate students were enrolled in a required integrated math/science methods course and twenty-three graduate students were part of a required integrated social studies/English methods class. Within each methods class, students were divided randomly into five groups of five to seven students. While each student was a member of a group, only thirty-six students were active participants. Each group served as a case.

All groups used PBWiki to engage in problem-based learning projects. Undergraduate students explored the preservation of the ladybug while graduate students investigated Jamestown as a historical mystery. All groups participated in a lesson on how to use wiki features and received a clear description of the problem and a multi-step problem solving framework. All participants had access to computers on campus. Most also had access at home. At each class meeting participants were encouraged to maintain their engagement in the project and reminded that their contributions were recorded. All instructions were posted on the wiki. Pre and post interviews about the definition of digital literacy were conducted.

5. Methods of Data Collection and Analysis

Data included interviews with participants about their knowledge of digital literacy prior to and at the conclusion of the problem-based wiki project completed by each group. Wikis consisted of page histories, indicating both types and frequencies of functions performed by participants. There were two levels of data analysis provided by the wiki-page histories. At the first level, all functions were identified and counted. At the second level, two researchers reviewed the substance of each transaction to create a coding scheme (Nastasi, 1998). The coding scheme reflected literacy skills as follows: initiation, revision and extension. The coding scheme was finalized and frequencies established. A third rater utilized the coding scheme to code twenty-five percent of the wiki data for purposes of reliability. A content analysis was applied to the interview data, identifying underlying themes related to their understanding of digital literacy and their own digital literacy skills.

6. Results and Findings

The research goal was to explore digital literacy through the interaction and collaboration of participants as they used wikis as tools for identifying and processing information in pursuit of solutions to content-bound, open-ended problems. This study resulted in two major findings that inform our understanding of how digital literacy is developed and demonstrated.

Specifically, we identified the literacy skills that students possessed and chose to utilize when confronted with wikis as tools for meaning making. We were also able to identify the limits of the knowledge they were able to construct with this tool.

Findings indicated that preservice teachers were proficient in a limited number of skills needed to use wikis as tools for communication. These particular skills included initiation, revision and extension.

Initiation: Students exhibit the skill of initiation when they post new information on the wiki, typically at the end of the last post without incorporating it into the wiki narrative. An initiation could include a quote, hyperlink, graphic, and or a brief text related to the topic of the wiki. Evidence of participants' skill of initiation is provided below:

Student One Posting: First two successful settlements in America were commercial ventures that were licensed by King.

Student Two Posting: The settlers created relationships with the Native Americans in the area.

The first posting provides historical background information on the economic incentives, while the next student posting provides information on Native American relationships with the settlers. Participants initiated through the

addition of related topics containing factual information. Students below initiated through the addition of related hyperlinks.

Student Posting: A new citizen science project has been launched at Cornell (the Lost Ladybug Project) to educate the public on the importance of biodiversity.

Student Posting: Here is a website: <http://www.msnbc.msn.com/id/26857828/> Generally, students initiated by posting a variety of graphic material as new information. Table 1 below, displays the frequency and types of graphic initiations demonstrated in the wiki pages for the social studies and science problem-based learning activity.

Table 1. Combined Social Studies and Science Graphic Data

| Types of Graphics | Science | Social Studies | Total |
|---------------------|---------|----------------|-------|
| JPEG | 12 | 9 | 20 |
| Video | 0 | 3 | 3 |
| Website (Hyperlink) | 30 | 73 | 103 |
| Word Attachment | 0 | 2 | 2 |

Revision: Editing, deleting, reformatting and reorganizing information posted is the skill of revision. Participants' revision consisted of editing by changing word order and correcting errors in grammar and spelling without changing the intent of the original post. This was limited to their own postings rather than the postings of others. Samples that illustrate students' revisions are provided below:

Science Student Posting: ~~Habitat~~ habitat

Social Studies Student Posting: where ~~they~~ did they get their food

Table 2. Frequency of Skills shows the frequency of revisions made to both science and social studies wiki pages.

Extension: Students extend when they add information or related topics to that which is an existing post. Below are samples of student extension:

Science Student Posting: The National Science Foundation has funded the "Lost Ladybug Project" with 2 million dollars to inspire young children to hunt for ladybugs. "A team of Cornell scientists is asking children for their help.

Science Student Posting: The goal is to generate excitement about natural science and getting outdoors; demystifying science and getting the kids comfortable with the process of doing scientific inquires.

Table 2, Frequency of Skills, also shows the frequency of extensions made to both science and social studies wiki pages.

Table 2. Frequency of Skills

| Skill | Social Studies | Science | Total |
|------------|----------------|---------|-------|
| Initiation | 158 | 66 | 224 |
| Revision | 62 | 23 | 85 |
| Extension | 57 | 12 | 69 |

7. Knowledge Construction

Data indicated that students were adept at finding information, but they did not engage in analyzing, evaluating or critiquing information. Their thinking about information and the texts they created through that information remained largely at a factual level. Knowledge was acquired and regurgitated. Knowledge was not constructed. They did not use newly acquired facts to create unique ideas. Students posted additional data bytes without making meaning out of posts through substantive revisions. When students did post information they did not contextualize it, rather they just pasted the bit of data to a long list of other postings. The students' postings represented no evidence of critical thinking or evaluation of sources. There was no editing of peers' postings.

Both findings indicate that preservice teachers were facile with the skills needed for using wikis as meaning making tools and that they recognized the potential of wikis as meaning making tools. In initial interviews they characterized digital literacies by their technological tools. For these students, digital literacy meant "cameras," "computers," "satellites" for watching television and navigation tools for "surfing the Web." Final interviews were quite different. Participants spoke of "deciphering," "creating information," "a process" and being more than "technologically savvy." While preservice teachers clearly experienced a shifting perspective of digital literacy that was both product and process, they were not able actually use wikis as tools for deep engagement in the process of knowledge construction.

8. Discussion

The literature indicates that wikis are viewed as collaborative tools that facilitate the kinds of student centered learning typically associated with problem-based learning. Wikis require the kinds of skills that this study identified, namely initiation, revision and extension. Each of these skills shows the principles and information behaviors of Radical Change theory (Dresang, 1999, 2005, 2009) in practice. Wikis have the potential to foster the kinds of knowledge that 21st century literacies require (NCTE, 2008), and yet, participants in this study were unable to demonstrate them.

Teachers and students seem equipped to use these tools and engage in these literacies. That is the good news. The challenging news is that learners, well versed in the use of technology in their lives outside of school, experience difficulty using and making meaning through wikis in school settings. Our study of preservice teachers confirmed this. Like Cole (2008), we had low participation. Of the fifty participants, only thirty six participated through

individual posting. They were able to use the tools to access and contribute information to a developing text; however, this text was not truly collaborative. They made no revisions and only limited extensions. Moreover, it was neither original nor cohesive. Reorganization of ideas remained at the sentence level creating a virtual laundry list of pre-existing information about the problem. While students were unable to demonstrate the objective of the assignment by constructing new knowledge, interviews indicated that they did develop and understanding of knowledge construction as a process and product. They recognized wikis as a tool for making this happen. Like Luce-Kalper (2007), this study points to the potential for wikis to become Radical Change texts.

Dresang does not discuss knowledge construction as part of Radical Change theory. She explores information sources as Radical Change texts, but does not explore the new texts that are constructed or the information that these new texts convey. She focuses on the process of information gathering with an eye toward production as shown in access and boundaries, but not the product of the process. Interestingly, neither do our students. Clearly, they understand the process and its potential, but they were never able to construct new knowledge with a wiki.

9. Future Directions

This study is significant because it provides a window into the 21st century literacies (NCTE, 2008) of 21st century teachers. By identifying the skills necessary for text construction, the ways in which preservice teachers understand the knowledge construction process, and their difficulties with creating new knowledge, this study has the potential to inform curriculum and instruction of teacher education and professional development programs. Specifically, this study points to the importance of creating assignments that truly necessitate the use of ICTs as meaning making tools. It demonstrates the need for identifying the types of facilitation, scaffolding, modeling and opportunities for repeated practice necessary for using digital tools in academic settings. Future studies might consider an investigation of how to design and embed digital literacy assignments into curriculum in meaningful ways. Additionally, an exploration of the ways in which teachers organize, manage, instruct and evaluate students engaged in these texts is critical.

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Upbringing Process Quality and Cooperative Learning in the Family within Latvian Transformative Society

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Abstract

The necessity to address the problem of upbringing process in the family in the transformative society of Latvia is motivated by the shift of the philosophical paradigm in the society, for the upbringing process in the family also changes. Parental upbringing competence criteria and indicators that describe upbringing process quality in the family in the transformative society of Latvia were developed. The research presents the data on the upbringing process quality in transforming Latvia obtained and interpreted in the framework of the research applying the survey as a data collection method. It was concluded that in Latvia the upbringing in the family retains its topicality as a joint activity in which intimate and permanent interaction (cooperation) takes place in time. This way the upbringing context for each family member's development is ensured. The joint life of generations is oriented towards the younger generation thus to the future.

Key words: family – upbringing – parental upbringing competence

1. Introduction

Politically economic situation in the world is notably unstable. The changes brought about in the end of the 20th c. and beginning of the 21st c. are characterized by the high dynamics of the content and process of all the life activity spheres as well as ambiguity, complexity, uncertainty, continuity and dualism. In addition, these changes are often uncritically adopted at different social levels in Latvia. This fact fundamentally burdens the complex nature of transfer of the most important values (implicit – explicit) from generation to generation in the transformative situation, for when the economic and political situation changes, the previously offered paradigms are reconsidered as well. Latvia is ranked among those countries where in the past twenty years these changes resulted in a significant resonance in all the spheres of national economy, including the social and humanitarian ones.

The contemporary social situation is characterized by a paradox – in its dynamics, pluralism and the state of chaos it becomes sustainable, becoming a stable attribute of a modern society – transformative transformations.

The transformative situation affects both public philosophic and pragmatic view of the world and puts forward different demands for people and social relations. Therefore, the polemics about the family and its role in the transformative situation as characteristics of society has become of particular topicality. It is of significance that the development of a family as a phenomenon correlates with

both its members' interrelations and socio-ecological field (Schneewind, Ruppert, 1995).

Consequently, a successful upbringing process as well as the quality of adult – child relations both in private life and in the society depends on whether (and to what extent) the cooperation/interaction processes between adults (parents) and children are organized in accordance with the respective context and situations, taking into account the constantly changing boundaries (Zaouche-Gaudron, 2002; Walper, 2005). Therefore, the study aimed to explore parental upbringing competence as a family quality dimension.

2. The Study Context

The upbringing process in the family correlates with the social system type; consequently, the essence of upbringing in the family is determined by the dominating ideological and philosophical view and values. The analysis of historical periods of the Latvian society motivates the conclusion that from the historical perspective, upbringing corresponds to a number of dimensions.

The societal dimension comprises collectivist and individualist contrasting directions. The essence of the collectivist direction is revealed in the collective upbringing theories (Zelmenis, 1969; Spona, 1972; Bozovica, 1975). The public dimension was the main focus in these theories, developing a collectivist; consequently, the development of an individual was not paid attention to. This dimension is revealed in authoritarian regime theories (Frejs, 1938; Bozovica, 1975, Studente, 1988). It can be concluded that an individual is the means for the societal goal and interest realization (Ивин, 2005) and a family is a transmitter of the community's ideas and demands to a child (Salputra, 1977). An important upbringing component of this historical period is 'workplace teams' and various public bodies that were controlling and guiding the upbringing in the family in places of residence (Studente, 1978). Within this dimension, control is a significant upbringing technique; consequently, upbringing in a family is seen as parental skills to influence the child pedagogically correctly and choose effective upbringing tools (Studente, 1988); during this period a child is the object of the upbringing process or a passive subject.

Individualism dimension comprises the individualism and individual directions. In Latvia it was the time of post-Soviet regime; the scientific literature outlines the ideas of democracy and liberalization in all spheres, including a family. Nowadays an individual's life cycle position when personal position is freely expressed (talents, emotions, habits, vice), is perceived with caution (Антонов, 2007). In practice such a position often enables quite the opposite result as intended. If the denial of old values develops misunderstood democracy and liberalism, with exaggerated emphasis on individuality and uniqueness, it is not possible to realize the upbringing potential. As a result, the individual consequences are revealed: inability to cooperate, lack of responsibility for one's decisions and social obligations (Антонов, 2007) as well as, possibly, social indifference, for the life activity is connected with the realization of false goals, uncritical domination and power.

Both dimensions in exaggerated sense mark a dangerous social direction to exclude the cooperative skills as personal competence as well as misunderstood value priorities, accountability and freedom concept, which limits personality self-developmental experience.

The current situation in the Latvian transformative society is characterized by spontaneous changes in the upbringing paradigm and in its goals, but the upbringing process organization change is slower.

The awareness of parental upbringing competence is based on a pedagogical idea that it is the parents' creative experience component that creates a purposeful flow of social situations, transforming ordinary and unusual everyday situations into upbringing situations, and supports the development of an autonomous personality in joint family activity, thus defining the upbringing process quality. Namely, parental upbringing competence comprises a personality's balanced cognitive, emotional and behavioral components related to the parents – child relationship where in cooperation/interaction the needs are met, values are interiorized and exteriorized, and attitudes developed.

Theoretical guidelines on parental upbringing competence are summarized and analyzed by developing the parental upbringing competence criteria and indicators (Medne, 2009). As the key ones, the following four criteria are put forward. Firstly, family as a union, with the three indicators: encouraging and supportive vertical and horizontal dialogue; balanced interior and exterior borders of belonging and politeness; unity in principles, aims and value. Secondly, freedom in the family with the three indicators: equality, independence and responsibility. Thirdly, solidarity in the family, with the two indicators: attitude towards oneself and attitude towards the others. Finally, cooperation in the family, with the three indicators: justified mutual requirements' voicing and sustenance, participation in the family joint activities and productivity of family joint activities (Medne, 2009).

3. Field Study

3.1. Field Study Framework

To ascertain the real situation in the upbringing field, the field as a social system was explored (Kron, 1999; Mayring, 2002; Wolff, 2007). The upbringing process organization, content and quality in Latvian families were analyzed setting parental upbringing competence as a research subject. The aim of the field study was to define and analyze the actual level of parental upbringing competence in families in the transformative society of Latvia in accordance with the criteria and their indicators in the theoretical construct developed and tested to find the answer to the question on family upbringing quality in the transformative society of Latvia.

The field study was conducted in a broad social context using the method approved in the survey applied in the framework of the pilot study. The research sample at this study stage reflects the structural division and upbringing field

diversity in Latvian families. The field study covered about 1% of the Latvian residents at reproductive age (Latvian Statistical Yearbook, 2008). The field study was conducted in the period from April, 2008 till February, 2009. For further statistical analysis the data from 632 questionnaires was used. The questionnaires were distributed randomly in schools of various regions of Latvia. (Respondents: women $n = 467$ or 74%, and males $n = 165$ or 26%, at the age from 18 to 80.) The survey results were analyzed by frequency, using descriptive and analytic statistical methods.

3.2. Field Study Results

For the presentation of the research results, the weighted average indicators were chosen to compare the results of different scales comprising a different number of statements. The results obtained in the study show that the upbringing process in the family maintains its significance in the cooperation among the generations. To facilitate a better understanding of the competence realization quality and opportunities for the development, the differences in the eleven indicators of parental upbringing competence and their relation to the other (demographic) indicators were analyzed.

Comparing the average size of both gender groups, the evidence of gender differences in the 5 out of 11 scales was detected. In the scales balanced interior and exterior borders of belonging and politeness ($p < 0.01$), encouraging and supportive vertical and horizontal dialogue ($p < 0.05$), justified mutual requirements' voicing and sustenance ($p < 0.01$), equality and attitude towards the others ($p < 0.01$), the female are more positive in their essence. The data obtained prove that mothers' and fathers' parental upbringing competence realization is different which means that even being in the synergic unity, a mother and a father have different upbringing missions. However, it would be misleading to interpret this asymmetry as positive or negative, rather, it proves that the differences between male and female perception and the process of realization are logical and natural.

This encourages make an assumption that mother's and the father's parental upbringing competences equally enrich the educational process. A weak, but still statistically significant link between parents' biological age and the following scales was detected: open, encouraging, supportive vertical and horizontal dialogue, responsibility and attitude towards oneself; with the biological age being increased, the results of the corresponding scale are decreased, with the age being increased, the indicators become more positive in the essence, respectively. This reveals that the empirical results obtained at this stage of the research confirm the ideas acknowledged in the theory, stating that parental upbringing competence has a tendency to undergo qualitatively positive changes in the parents' life cycle. The present study reveals that the parental upbringing competence undergoes positive changes with the biological age increase, and possibly, it can be linked to the personality maturation and the idea of life-long learning.

It was examined whether there is any link between the biological age at which the respondents become parents and the construct scales. Such relations were

not detected. The assumption that older the parents provide the higher quality of the upbringing process is not verified in this research.

On the basis of analysis of the differences among the respondents of different education levels (basic education, secondary education, secondary vocational education, college education and tertiary education), it was concluded that statistically significant differences were detected in the following scales: balanced interior and exterior borders of belonging and politeness ($p < 0,01$), open, encouraging and supportive vertical and horizontal dialogue ($p < 0,01$), responsibility ($p < 0,01$), attitude towards oneself ($p < 0,01$), attitude towards the others ($p < 0,01$). To facilitate a deeper understanding of the differences among the respondents of different education levels, a statistical PostHoc test has been conducted.

The scale 'balanced interior and exterior borders of belonging and politeness' reveals significant differences among the respondents of basic education level as opposed to all the other education levels: secondary education ($p < 0,01$), secondary vocational education ($p < 0,01$), college education ($p < 0,01$) and tertiary education ($p < 0,01$). In the following indicator, the respondents of tertiary education level do not reveal any significant differences only with the respondents of college education level, but they are different from all the other respondent groups: respondents of basic education level ($p < 0,01$), respondents of secondary education level ($p < 0,01$), respondents of secondary vocational education level ($p < 0,01$).

The scale 'open, encouraging, supportive vertical and horizontal dialogue' reveals the significant differences in the indicators of the respondents of tertiary education level from/and all the other education level respondents' indicators (basic education level ($p < 0,01$), secondary education level ($p < 0,01$), secondary vocational education level ($p < 0,01$), college education level ($p < 0,05$)).

The scale 'responsibility' reveals the statistically significant differences among the groups of respondents of different education levels: the respondents of basic education level are different from the respondents of secondary vocational education level ($p < 0,01$) and of college education level ($p < 0,01$); the respondents of secondary education level are different from secondary vocational education level ($p < 0,05$) and college education level ($p < 0,01$); respondents of tertiary education level are different from college education level respondents ($p < 0,05$).

The scale attitude towards oneself reveals the statistically significant differences among the respondents of basic education level from the respondents of secondary vocational education level ($p < 0,01$); respondents of college level education ($p < 0,01$), of tertiary level education ($p < 0,05$).

The scale attitude towards the others reveals the statistically significant differences among the respondents of basic education level and all the other education levels: basic ($p < 0,01$), secondary ($p < 0,01$), secondary vocational ($p < 0,01$).

In general, this field study proves that there are significant differences among the respondents of basic education level and the other respondent groups. Therefore, the results become more positive in their essence, when parents proceed to the next educational level. These results foreground the statement that the respondents of basic education level have significantly lower parental upbringing competence; it is possible the education policy target audience is the parents of basic education level, as proceeding to the next educational level, the tendency to the positive changes in the parental upbringing competence is observed. This means that parents' pedagogical and psychological consultancy as well as parents' further education is necessary to ensure the possibility for parenting competence development, uncovering their personalities and revealing their parental upbringing potential.

The overall analysis of the statistically significant relations among the respondents' biological age of becoming parents, and their different education level allows for the possibility to put forward the assumption that it is not significant when people become parents, on the contrary, it is crucial for them to proceed to higher education levels.

The differences in the responses provided by the respondents based in different locations can be observed only in the scale – family activity productivity ($F(4, 618) = 4227, p < 0,01$). The respondents from the towns reveal the statistically significant differences from all the other respondent groups: farmsteads ($p < 0,01$), villages ($p < 0,01$), cities ($p < 0,01$), and Riga ($p < 0,01$). The degree of satisfaction with the joint activities in the towns is higher than in the farmsteads, villages, cities and Riga. The basis for this fact might be the satisfactory level of social visibility range (neither too wide, nor too narrow) that allows the family as a relatively closed environment to facilitate the degree of satisfaction with the joint activities, improving their relations and growing in the social interrelation spectrum (interior and the exterior).

The respondents, having a different current legal relationship status (married, single, divorced, widowers) provided the statistically significant different responses in the 7 out of 11 scales: unity in the principles, aims and values ($p < 0,01$); balanced interior and exterior borders of politeness and belonging ($p < 0,01$); productivity of family joint activities ($p < 0,01$); equality ($p < 0,05$); independence ($p < 0,01$); attitude towards oneself ($p < 0,05$) and attitude towards the others ($p < 0,01$). The indicator of current legal relationship status reveals the highest number of differences.

The results obtained prove that the respondents belonging to the group, whose parents' current legal status is married, generally have the results more positive in their essence in the indicators mentioned. It can be assumed thus that the legal relationship status facilitates the feeling of security and the sense of belonging, which in turn increases the level of parental upbringing competence in the scales unity in the principles, aims and values; balanced interior and exterior borders of politeness and belonging; family activity productivity; attitude towards oneself; attitude towards the others. Therefore, it is apparent that parents' degree of satisfaction with interpersonal relations correlates with the level of satisfaction with the upbringing process and the family joint activities.

The analysis of the differences in responses provided by the respondents with different income levels, the differences were detected in the indicators of the following scales: unity in the principles, aims and values; balanced interior and exterior borders of politeness and belonging; family activity productivity; and attitude towards the others. The respondent group with income level below Ls100 per one family member reveals the statistically significant differences from the other respondent groups with (Ls 101 – Ls 150, Ls 251 – Ls 500 ($p < 0,05$); above Ls 500 ($p < 0,01$)).

In general, it can be concluded that both the families with high and low income levels have positive results. It is possible that this aspect reveals the difference in the perception of money as a value and social status significance in the family. Money is the goal in itself for the families with average income level, which, on the one hand, defines their philistine life position, placing their own personal wellbeing and social status in the centre, on the other hand, decreasing the significance of interrelationships. It is possible that relative as opposed to absolute wellbeing is of higher value for these respondents. Therefore, the results obtained foreground the discussion about the middle class as an indicator of the quality of the society. For the families with both low and high income level money is a tool. The interpretation of values in both poles (high and low) is different in its form but identical in its content (idea).

In this perspective, the satisfaction with joint activities, family traditions as well as balanced interior and exterior borders of politeness and belonging and unity in principles, aims and values are more qualitatively realized parental upbringing competence indicators in family joint activity facilitation. The results obtained at this stage of the research correspond to the claims put forward in different historical periods (Адлер, 2003; Андреева, 2005) stating that the basis for the personality maturation is formed by both successful and effective interrelationships and emotionally positive family joint activities. The field study also proved that the personality maturation is linked to the parental upbringing competence and its quality, revealing the parent's educational level as a significant aspect to be highlighted.

Possibly poverty in some cases is a consequence of some unlucky coincidence and it is not correct to make generalizations in such cases. This aspect should also be considered within the framework of the necessity of parent pedagogical and economic consultancy and parent further education.

The conclusion can also be drawn that, in general, in the Latvian transformative society, despite the relevant society development tendencies, upbringing in the family in the contemporary society retains its significance (something that has some particular sense), provided that the parents' maturity as mutual learning forms the basis for upbringing philosophy. This predetermines the ability of a family as a value in itself to develop in the transformative society. Namely, parents are responsible for the ability of the family and the functions realized in it to critically qualitatively grow in the cultural and historical progress-oriented societal context (rather than passively adapting, but assessing critically the society tendencies, facilitate their own and their children's autonomy development).

4. Discussion and findings

The aim of the research was to detect and analyze the actual level of parental upbringing competence in the transformative society of Latvia as well as to explore and provide the answers to the topical questions about the individual, social and educational orientation in the transformative society of Latvia. In general, the conclusion can be drawn that family as a value in the transformative Latvian society does not lose its topicality and parent child relationships in the family among the generations are still seen as a significant aspect of each family member's experience as well as a facilitator of life-long learning.

As a result of the research, a universal paradigm of cooperation has been substantiated: the universal tool for parent-child interaction is equal cooperation, which is characterized by respect, trust and mutual learning in the upbringing field. The upbringing field is a conventionally protected and framed educational space that facilitates equal possibilities for need satisfaction, value development and the dynamics of personal significance as a result of cooperation/ interaction. The analysis of the theoretical literature and the results obtained in the study are put forward for the open discussion: the upbringing process in contemporary families is mutual – children learn from their parents and parents learn from their children; the upbringing process in the family is more successful if parents develop their parental upbringing competence systematically and voluntarily.

5. Conclusion

The theoretical analysis of scientific literature as well as the field study confirms the necessity of pedagogical consultancy and parent further education (as a component of life-long learning) in Latvia. The results obtained in the study proved that representatives of different professional fields need further education to reduce the spread of social stereotypes about the upbringing in the family in the society of Latvia.

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Curious minds: the role of the adult in talented reasoning in young children

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Abstract

Objective. The program Curious Minds focuses on talented reasoning in young children. Although in order to understand the talent process, the role of adult, child and task should be considered in combination, this sub-study focuses on the behavior of the adult. The question is whether the openness of the verbal actions of the adult differs under different conditions. **Method.** Four adults received a combination of a task and an instruction (balance scale–didactic worksheet, floating/sinking-test protocol, linked syringes–adaptive protocol, marble track–no protocol) and administered the task to 15 different children. **Results.** The test protocol yielded by far the most open verbal utterances (most encouragements and open questions) The didactic instruction resulted in a high frequency of giving information. The results suggests that a stricter protocol limits the variability of the adult. **Conclusion.** Instructing the adult about the method of task administration seems to affect the openness of the adult.

Keywords: scientific reasoning – adult-child interaction – symmetry

1. Introduction

Recently, there has been a worldwide increase in attention for preschool science education. Various initiatives were undertaken to involve children more in science, technology and mathematics (also referred to as STEM-disciplines). For instance, several current studies have focused on scientific knowledge in and education for young children (e.g. Mantzicopolous, Patrick & Samarapungavan, 2008; Tyler & Peterson, 2004; Havu-Nuutinen, 2005). Also, the (US) National Research Council (2007) has paid attention to this topic in its report 'Taking science to school: Learning and teaching in grades K-8'. The European Commission has pled for more attention for science education (Rocard et al., 2007).

In the Netherlands, the program 'Curious minds' was initiated. This program focuses on scientific reasoning in children between three and six years of age. Children of this age seem to have natural talents in the STEM disciplines: they ask questions, are creative, explore and want to know how something works. These interests were already noticed by Piaget (1930). For instance, he mentioned the natural curiosity of children about air and spoke about a 'universal curiosity about all the means of locomotion' (Piaget, 1930, p. 195). This natural curiosity diminishes as a function of grade level (e.g. Engelhard & Monsaas, 1988).

The Curious Minds project aims at describing the talents of young children in the STEM disciplines and discovering how the development of these talents can be stimulated. The following definition of talent is proposed: Talent involves a high learning potential in a specific domain, in-depth processing of information, creativity in explanations and manipulations, high perceived learning potential, strong involvement and exploration, and positive feelings with respect to the area of interest (Steenbeek & Uittenbogaard, 2009). More specifically, talent is seen as a process that emerges during real time interactions between child, task and adult, but only if the situation is sufficiently talent-eliciting, open and supportive (Steenbeek & Uittenbogaard, 2009, p.45). Chak (2008), who studied explorative behavior in young children, also established the importance of these connections between child, task and adult. The mutually influencing connections can be visualized as a triangle (figure 1). Here, the behavior of the child influences both the adult and the task, the adult in turn influences the task and the child, and the task influences both the adult and the child. For instance, if the child manipulates the task material, it will change which will influence the behavior of the child as well as the adult.

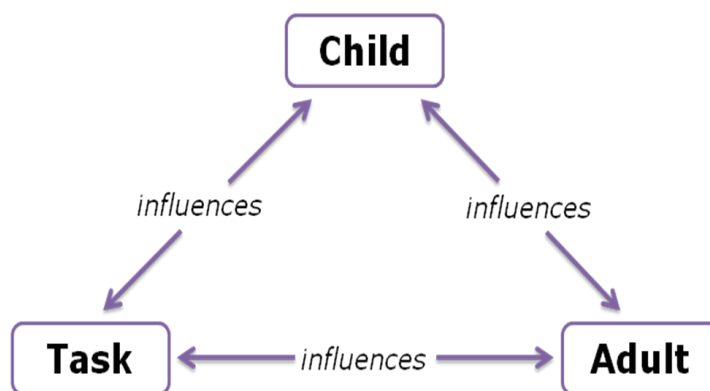


Figure 1. The talent triangle (Steenbeek & Uittenbogaard, 2009)

Several studies have focused on the influence of the adult on the performance of the child during a scientific task. For instance, Rappolt-Schlichtmann, Tenenbaum, Koepke and Fischer (2007) found that the complexity of answers about buoyancy in children was higher if the teacher modeled complex answers than if the teacher only formulated a. However, it has also been made clear that the role of the adult is not helpful in all cases. For example, Gonc and Rogoff (1998) have reported that the amount of support during a sorting task did not influence later performance.

With regard to the role of the adult during a problem solving task, the notion of *scaffolding* is also important. During scaffolding, the adult provides a form of external support to the child so that it can learn a specific skill and this support can be diminished when learning has taken place (Granott, Fischer & Parziale, 2002). Van Geert and Steenbeek (2005) conceptualize scaffolding as an intrinsic dynamic notion: 'It describes how a particular level of knowledge or skill in a student changes as a result of the scaffolding process' and at the same time how scaffolding changes as a result of this change in knowledge or skill in a student (Van Geert & Steenbeek, 2005, p. 117).

Another aspect of the interaction is the role distribution between the adult and the child (Hoogsteder, 1996). Role distribution refers to the responsibility of both participants, which can vary between symmetric and asymmetric. In a playful mode of interaction, the distribution will be more symmetric, while in a test mode the adult will take leadership and the distribution is asymmetric (Hoogsteder, 1995, 1996). In a didactic interaction, the distribution is both asymmetric and symmetric. It is asymmetric in the sense that the adult monitors what is happening, but symmetric in the way that the child is free to explore and make mistakes at specific moments.

It has been argued that every verbal interaction can be characterized by a 'power difference' between the interviewer and the interviewee (Nunkoosing, 2005). This power difference is even more distinct if the interviewee is a child. If power differences between child and adult become too explicit, the child may avoid giving an answer and thus avoid revealing its uncertainty, which prevents the child from obtaining feedback from which it can learn. To reduce the power difference, a puppet can be used. Although not many research exists on the influence of puppet use in scientific reasoning, it did help children in reasoning about their own feelings (Epstein, Stevens, McKeever, Baruchel & Jones, 2005). It might therefore be argued that it also reduces the asymmetry during a problem solving task. For instance, in a classroom setting, the behavior of the teacher changed when using a puppet (Simon, Naylor, Keogh, Maloney & Downing, 2008). Instead of asking questions that required children to reproduce knowledge, the teacher posed problems that focused the children on reasoning and the use of argumentations. This indicates that the protocol the adult used, changes his/her verbal interaction style.

Based on our observations of adult-child interactions during problem solving in the Curious Minds study, we conclude that the adults often show significant variation in the way they present a task to the child or in the way they assist the child in solving task. If, as the scaffolding literature predicts, the form of adult assistance is an important factor in the learning process of the child, variability in the form of the adults assistance becomes an important empirical issue.

Given all these aspects of the interactions between child and adult, we are interested in whether the degree of standardization of the task affects the (a)symmetry of the interaction, and - more specifically- whether this changes the 'openness' of the adult to the initiatives of the child. We speculate that a test protocol (being relatively strict) might be the least 'open', offering only few degrees of freedom for the child (for instance, the child has more choices answering an open question than a closed question). A more adaptive protocol with the aid of a puppet (a more playful interaction), and a didactic mode might lead to more 'open' actions. The verbal behaviors of the adult in the free (no-protocol) condition depends probably mostly on the real time interaction and might therefore be highly variable. The present study aims at answering the following questions:

– What are the differences in the openness of the verbal actions of the adult, under different conditions (didactic, adaptive, free, or test) during a scientific reasoning task?

– How stable is the openness of the adult under these conditions over different children?

2. Method

2.1 Participants

Four adults (two men and two women) participated in this study. All were experienced in working with children, either in administering tests or teaching. One female participant is an experienced kindergarten teacher. The other woman is a developmental psychologist working at the University of Groningen. One man is a master student in psychology with some prior experience in administering IQ-tests to children. The second male participant is a researcher in the Curious Minds project, with many years of experience in teaching and testing young children.

The participating children consisted of eight boys and seven girls between the ages of four and six years ($M = 5;2$, $SD = 6.2$). All children joined the same elementary school in a rural area in the North of the Netherlands. All parents gave informed consent.

2.2 Materials

There were four tasks, that each had a unique task instruction. The child had to formulate predictions and explanations about the working mechanisms of the task in each of the conditions.

1) *Balance scale*. The first task was a classic balance scale test, combined with a didactic instruction worksheet. The balance scale consisted of a fixed fulcrum with ten different pins on each beam and twenty cards with an equal weight.

2) *Floating/sinking*. The second was a test protocol based on the WISC-III NL. The child had to figure out if and why fourteen different objects float or sink.

3) *Linked syringes*. The third condition consisted of a playful (adaptive) protocol and a linked syringes task. Two syringes were connected with a single tube. By pushing in one of the syringes, the compression of air pressed the other syringe outwards. Pulling one of the syringes resulted in the opposite effect: the other syringe moved inwards.

4) *Marble track*. The fourth task was a marble track without a specific protocol. By spinning a handle the marble 'climbed the stairs'. At the top, the marble rolled back to the beginning of the 'stairs' through a steep, cornered slope.

2.3 Procedure

Each adult performed the tasks with the same 15 different children who were recruited from different classes in the same school. The adults were unfamiliar with the children. The order was randomly assigned. One to eight tasks were administered by the adult on one day. For the children, the interval between two tasks was one week in most cases. The tasks were administered in a quiet room outside the classroom and all interactions were videotaped using two cameras.

Worksheet. The teacher in the didactic condition received the worksheet in which the stated aim was to let the child discover the working of the balance scale. The adult was instructed to ask the child regularly to make predictions and explanations.

Test protocol. The test protocol consisted of strict instructions for the adult (the student) about every aspect of the task administration, from seating arrangements to what had to be asked. The protocol only left room for the adult's own intuition in questioning the answer of the child (until he thought the child had reached his/her optimal explanation), but even then had to follow specific instructions. The objects had to be presented in a fixed order. After presenting, the child had to predict if the object would float or sink and why this would happen. Then, the child had to give the object back to the adult and he would drop the object into a water tank. Finally, the child would be asked to explain what had happened.

Adaptive protocol (puppet). The adaptive protocol is based on the test protocol but the adult (the developmental psychologist) is freer in her verbal and nonverbal actions. The puppet had to be introduced as being 'a bit silly'. The child had to predict and explain what would happen if one syringe was pushed inwards and afterwards explain why the other syringe moved. The same questioning had to be done prior and after pulling the syringe. The child had to be given some time to explore the two linked syringes halfway the task. During questioning the adult was free to let the puppet ask questions or ask the child to give an explanation to the puppet.

No-protocol. In the free condition, the adult (the researcher) did not receive a specific instruction. The adult was already experienced in administering the marble track.

It is important to note that although the adult had received specific instructions, these were all *content* and not form related. Thus, they were free to use (open or closed) questions, encouragement, and instructions during the task.

2.4 Coding adult 'Openness'

The verbal actions of the adult were coded according to the coding list displayed in table 1. A situation would be coded as totally open if the child is free to determine his/her own actions, and is not guided by the verbal actions of the adult. The most open category is encouragement, followed by open question, closed question, giving information, instruction and the least open category is

stop. Besides these categories (see table 1), two other codes were possible: off task and not-codable.

Table 1
Coding list Openness adult

| Openness | Code | Description | Example |
|--------------------|-------------|--|--|
| ↑ Encouragement | 6 | The adult encourages the child, for example to explain more. | 'Yes' |
| Open question | 5 | The adult asks an open question. | 'What will happen next?' |
| Closed question | 4 | The adult asks a closed question. | 'Does something happen there?' |
| Giving information | 3 | The adult gives information to the child. This can be about the task or about the procedure. | 'If I push, yours will go out and if I pull, yours will go in' |
| Instruction | 2 | The adult tells the child what to do now. | 'Pull yours one out' |
| Stop | 1 | The adult inhibits the actions of the child. | 'Stop, stop!' |

All video recordings were coded using the software program Mediacoder (Bos & Steenbeek, 2008). Two trained coders independently coded four recordings (7 % of the data set), each of a separate condition. There was 83% agreement. The kappa coefficient was .81.

A repeated measures ANOVA was performed to statistically test the differences in Openness. As a measure for stability, the coefficient of variance (CV) was calculated by dividing the standard deviation by the average for each condition. In order to test the stability of the Openness in the different conditions, a permutation test (Monte Carlo analysis) was used. In this procedure, we estimated the probability that the empirically found pair-wise differences between the CVs of the four conditions were produced by one single distribution (null-hypothesis of no-difference), instead of four different ones. After this, we tested the probability that the empirically found ranking of variability among the four conditions were the result of this single distribution.

3. Results

The results with regards to Openness are visualized in figure 2. The boxplot shows that the test protocol condition yields the highest average ($M = 4.65$, $SD = 0.12$), followed by the no-protocol ($M = 3.99$; $SD = 0.14$), the worksheet ($M = 3.70$, $SD = 0.19$) and the adaptive protocol condition ($M = 3.67$, $SD = 0.15$) turned out to have the lowest averages.

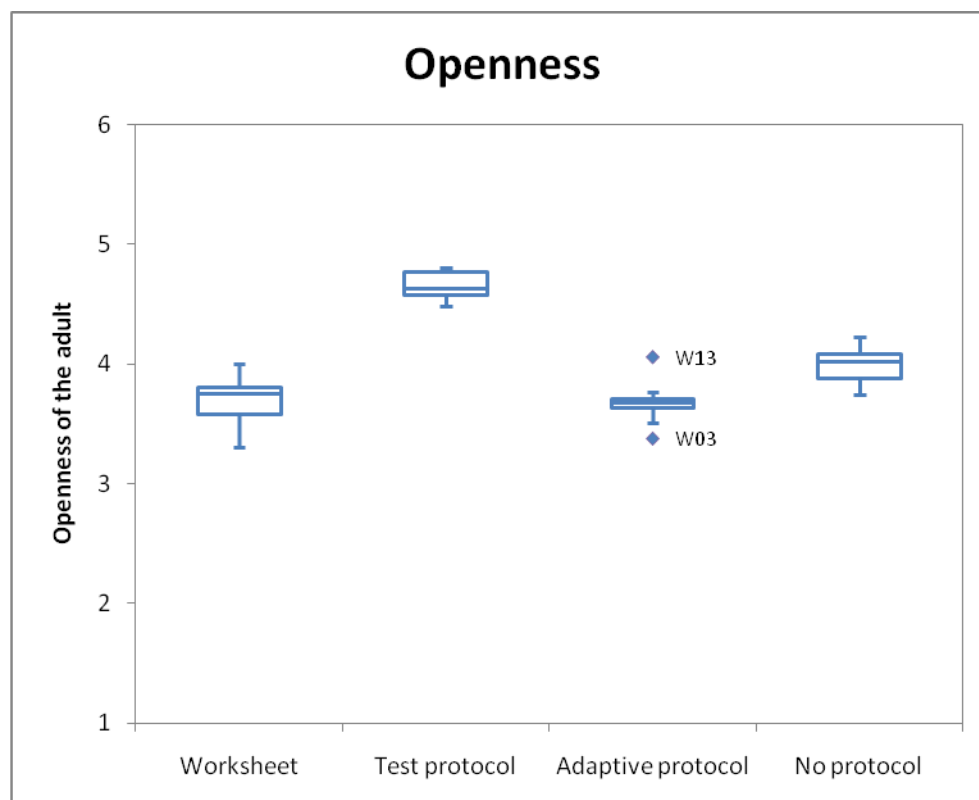


Figure 2. Boxplot of the openness of the adult in the different conditions.

In order to establish whether the differences between the four conditions are statistically significant, a factorial repeated measures was conducted with condition as between-subjects factor. The ANOVA revealed that the test protocol condition differs significantly from the worksheet ($F(1,13) = 236.21$), the adaptive protocol ($F(1,13) = 386.77$) and the no-protocol condition ($F(1,13) = 205.47$). The worksheet condition and the adaptive protocol condition did not differ from each other. However, they do differ from the no-protocol condition (worksheet vs. no-protocol $F(1,13) = 28.28$; adaptive protocol vs. no-protocol $F(1,13) = 44.85$).

Of all verbal utterances, the percentage of each category for each condition is displayed in figure 3. Visual inspection reveals that three categories vary the most among the four conditions: 'encouragement', 'giving information' and 'instruction'. A repeated measures was performed to test whether these differences are statistically significant.

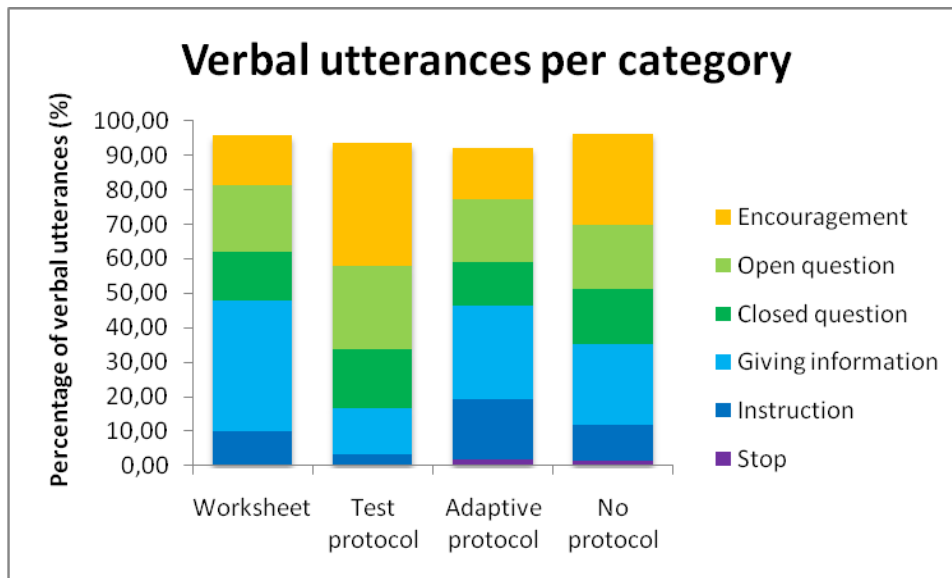


Figure 3. Percentage of the verbal utterances per category for each of the different conditions.

The results show that 'encouragement' was mostly used by the adult in the test protocol condition ($M = 35.71$, $SD = 4.44$), and that this varied significantly from the adult in the worksheet condition ($M = 13.49$, $SD = 5.37$; $F(1,13) = 101.34$), the condition with the adaptive protocol ($M = 14.77$, $SD = 3.62$; $F(1,13) = 54.01$), and the no-protocol condition ($M = 26.36$, $SD = 6.12$; $F(1,13) = 41.49$). Also, the no-protocol differed significantly from the worksheet ($F(1,13) = 101.34$) and the adaptive protocol ($F(1,13) = 54.01$). However, the worksheet and the adaptive protocol were not statistically different.

The adult in the worksheet condition gave information most frequently ($M = 37.40$, $SD = 6.95$). The test protocol condition ($M = 13.32$, $SD = 1.93$; $F(1,13) = 154.20$), the adaptive protocol ($M = 26.92$, $SD = 6.05$; $F(1,13) = 17.78$), and the no-protocol ($M = 23.40$, $SD = 2.54$; $F(1,13) = 45.88$) used significantly less 'giving information', with test protocol using it least frequently. The test protocol also differs significantly from the adaptive protocol ($F(1,13) = 47.55$) and the no-protocol condition ($F(1,13) = 103.97$). The difference in giving information between the adaptive protocol and the no-protocol is not significant.

The test protocol condition used giving instructions less frequently ($M = 3.11$; $SD = 2.06$) compared to the worksheet ($M = 9.86$, $SD = 3.98$; $F(1,13) = 90.95$), adaptive protocol ($M = 17.72$, $SD = 3.58$; $F(1,13) = 157.82$) and the no-protocol ($M = 10.41$, $SD = 4.48$; $F(1,13) = 50.44$). In the adaptive protocol, giving instruction is used most frequently compared to the other conditions (worksheet $F(1,13) = 32.95$; no protocol $F(1,13) = 35.67$). The difference between the worksheet and the no-protocol condition was not significant.

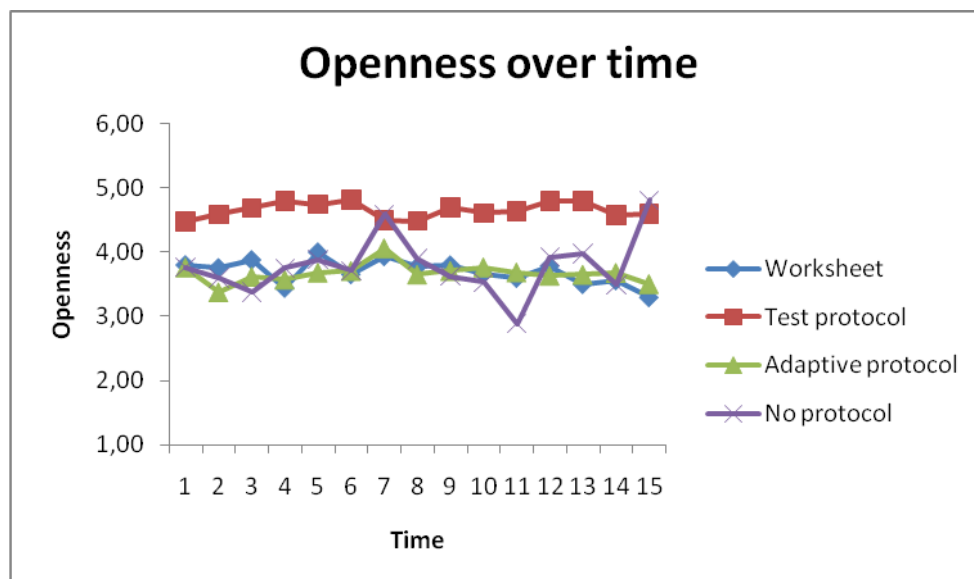


Figure 4. Openness scores over time for each of the conditions. The timeline represents the sequence and not the individual children.

With regard to the stability of Openness, the results are displayed in figure 4. Clearly, the no-protocol shows the greatest variability over 15 task administrations ($CV=0.12$) while the coefficient of variance for the worksheet ($CV=0.05$), test protocol ($CV=0.025$) and adaptive protocol (0.039) is significantly lower. The Monte Carlo analysis showed that the difference between the no-protocol and the other conditions was statistically significant, in the sense that the null-hypothesis distribution was able to produce similar results in a very small number of instances ($p < .001$). $<.01$. The other comparisons turned out to be not significant. However, the additional Monte Carlo analysis showed that the chances that the same ranking of conditions (that is : no-protocol – worksheet – adaptive – test) is statistically significant, ($p=.04$;)

4. Discussion

Contrary to our expectations, the test protocol yielded by far highest level of openness in verbal utterances, whereas the adults in the didactic (worksheet) mode, adaptive (puppet) interaction and free interaction used more 'closed' verbalizations. This result is possibly related to the fact that the adult in the test situation used encouragements and open questions most frequently. The reason may be that the protocol states that the adult has to keep interrogating the child until he assumes that the most optimal explanation is given. The adult in our study did this by encouraging the child to continue explaining. The frequent use of open questions can also be related to the protocol. The adult had to ask for explanations ('why is that?' or 'how is that possible?') prior to and after dropping the object into the water tank.

Another important result is the high frequency of giving information by the teacher using the worksheet. The worksheet did not state anything about an educational target of learning the child how distance and weight are related to

the balance of the scale. However, the teacher gave more information than in the other three protocols.

With regards to the stability of the openness under the different conditions, the adult in the no-protocol condition turned out to be the most variable, followed by the worksheet condition, adaptive (puppet) protocol and test situation. The ranking order of variability suggests further that a stricter protocol limits the variability of the adult. Since the most experienced persons in our study received the least strict protocols, it is not possible to establish whether the variability is due to experience, to the protocol, or to both.

It is important to note that in this exploratory study, each protocol was linked to a specific (STEM) task. For instance, the floating/sinking task was linked to the test protocol whereas the marble track is used in the no-protocol situation. It is possible that these specific tasks provide different opportunities for exploration and visually discovering the mechanisms. In turn, this can influence the behavior of the adult (as well as the behavior of the child), as indicated by the talent triangle. However, we do not see any differences in the nature of the tasks that might explain why one test more or less spontaneously leads the adults in applying a more open versus a more closed protocol. Hence, although the influence of the task is an aspect that needs further attention in future research, we do not see any strong suggestion that the nature of the task provides a better explanation for the differences in openness than the task administration conditions.

Further investigation of the symmetry of interaction is also required. In the present article, we described the degrees of freedom that an adult gives to the child, but not the actions and reactions of the child. However, the role distribution can only be understood if the role of the child is also taken into account. The necessity of linking the behavior of the child to the behavior of the adult is also indicated by the concept of the talent triangle. Two important aspects of the behavior of the child will therefore be taken into account in the next part of the research project: exploration and complexity level of understanding.

For now, we can conclude that the different conditions of task administration affects the openness in the communicative behavior of the adult, but interestingly enough, in a way that was counter to our expectations.

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Using Visual Models in Developing Computational Fluency for Third Grade Students

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Abstract

The literature related to computational fluency and visual learning is reviewed. Insights from many researches support that fluency in basic skills and operations is very necessary and is a pre-requisite to higher-level functioning in both reading and mathematics. Bobis (2006) emphasizes that computational fluency, whether employing mental or written methods, and number sense should be developed together. The standards describe the computational fluency as a "connection between conceptual understanding and computational proficiency" (NCTM, 2000). Analysis of recent research papers indicates that the level of number sense and computational abilities in elementary stages is very low. It is recommended that untraditional approaches are used to develop these abilities.

This research aims to develop the computational fluency by using a package of activities based on visual approach in elementary stage. The main research question was: What is the impact of using Activities based on visual models on students' computational fluency? To address the research question, Pre and post test scores were statistically compared using the t-test. Results indicated that there was statistically significant differences in favour of using visual approach. In other words, the visual approach was successful in helping third grade students to improve their computational fluency.

Keywords: Visual Models- Computational Fluency.

1. Introduction

Principles and standards for school mathematics (NCTM: 2000) emphasize the importance of computational fluency for all grades, especially in elementary grades.

It has also been shown that computational fluency plays a critical role in helping students for solving mathematical problems. The NCTM lists "the ability to compute fluently" as a number and operation standard for kindergarten to eighth grade.

- Computational fluency is an essential goal for school mathematics (p. 155).
- The methods that a student uses to compute should be grounded in understanding (pp. 152-55).
- Students should know the basic number combinations for addition and subtraction by the end of grade 2 and those for multiplication and division by the end of grade 4 (pp. 32, 84, and 153).

- Students should be able to compute fluently with whole numbers by end of grade 5 (pp. 35, 152, and 155).
- Students can achieve computational fluency using a variety of methods and should, in fact, be comfortable with more than one approach (p. 155).
- Students should have opportunities to invent strategies for computing using their knowledge of place value, properties of numbers, and the operations (pp. 35 and 220).
- Students should be encouraged to use computational methods and tools that are appropriate for the context and purpose, including mental computation, estimations, calculators, and paper and pencil (pp. 36, 145, and 154).

Building on the work done to develop mathematics curriculums during the last few years and the results of descriptive research related to number sense, it is clear that there is a dire need for our students to have high procedural ability when they deal with numbers and their operations.

In fact, computational fluency is a key for learning to reason about the base-ten number system and the operations of addition, subtraction, multiplication and division (Russell, 2000, P.154).

It is preferred also that high levels of efficiency in computation remain a goal of our mathematics curricula; the process by which it is achieved needs to take account of how students develop a sense of number. The path to computational fluency is not a straight-forward one for most students. However, it is clear that the promotion of number sense is critical to a basic understanding of mathematics and to a child's ability to compute easily (Bobis, 2006, P.23).

Furthermore, computational fluency aids in the ability to solve problems by allowing students to use generalized methods while monitoring and organizing (Naglieri&Ashman, 1999; Calhoon, Emerson, Flores and Houchins, 2007).

1.1. Computational fluency

According to the principles and standards for teaching mathematics of NCTM (2000), fluency includes three ideas:

- *Efficiency* implies that the student does not get bogged down in many steps or lose track of the logic of the strategy. An efficient strategy is one that student can carry out easily, keeping track and making use of intermediate results to solve the problems.
- *Accuracy* depends on several aspects of the problem solving process such as, careful recording and concern for double-checking results.
- *Flexibility* requires the knowledge of more than one approach to solving a particular kind of problem. Students needs to be flexible to be able to choose an appropriate strategy for the problem at hand and also to use one method to

solve a problem and another method to double-check the results (Russell,2000,P.154).

Fluency demands more of students than memorizing a single procedure does. Fluency rests on a well-built mathematical foundation with three parts:

1. An understanding of the meaning of the operations and their relationships to each other.
2. The knowledge of a large repertoire of number relationships, including the addition and multiplication.
3. An understanding of the base-ten number system, how numbers are structured in this system. (Russell,2000, Pp.154-155).

Drawing upon research, theory, classroom and personal experience, Bobis (2006, P.23) emphasizes that computational fluency, whether employing mental or written methods, and number sense are intertwined and should be developed together.

While a number of Egyptian Researchers provide good description of computational and number sense ability which students have, they in fact didn't give us efficient models for developing number sense, and thus computational fluency for elementary students.

Altogether, some studies ensure that Algebra achievement manipulate visual-spatial representations mentally. Correlations between visual-spatial require the ability to represent functional relations graphically. The abilities and math achievement involving computations and problem-solving in children are generally in the low to moderate range (Friedman, 1995, Pp.22-50)

So, this paper focuses on activities based on visual approach for developing elementary –children's computational fluency, and using multi – mental strategies.

1.2. Computational fluency and Number sense:

Carboni (2001) stated that "number sense is that intuitive feel for numbers and their relationships", and she also emphasized the importance of teaching and developing number sense through elementary mathematics.

On the other side, the computational fluency in this research is "A well-practiced and efficient use of procedures to compute. But according to NCTM standards, we can state that number sense and computational fluency go hand in hand especially in elementary mathematics.

Cotter (1998) referred to many international studies, such as the TIMSS studies; these studies show that Asian students do better than American student in mathematics". She asserted that (1) although some of the differences seen in Asian classrooms can't be implemented in American classrooms, some of the

ideas can,(2) the American students depend on manipulative in counting, but in the Asian classrooms, every time a number is spoken, the value is given Twenty one ,and would be stated Tow Tens and One , so Asian students have "built in" number sense, and much fluency in computation.

1.3. Visual Approach

The beginning step in developing basic facts is to build an understanding of the operation. Manipulatives are the important key. Children should have opportunities to represent the number sequences with physical models. (Hatfield et. Al., 1993: 205)

In order to develop students' math algorithms, the visual-spatial models could be used as an aid tools in solving mathematical problems. Some authors describe these models as part of a mental model developed in the brain, whose attributions have a direct relationship to the physical aspects of the problem (Huttenlocher et. al., 1994; Carpenter, Ansel, Franke, Fennema, & Weisbeck, 1993).

Our world is full of information that comes to us visually. The color and shape of a red, octagonal sign says, "Stop." A pie chart tells us percentage at a glance. Graphs demonstrate the ups and downs of financial markets. A smiling face conveys joy; a frown tells us there's trouble. This visual information is conveyed constantly and consistently; red usually indicates, "stop"; a smile rarely means "go away." It forms a language that students must learn if they are to become able to navigate a visual society. And when students use all three parts of the communication system—words, numbers, and images—together, they achieve better comprehension. (Murphy,2009)

Recently, Many curricula have begun to expand the role of manipulative materials in early mathematics education. Manipulative materials can include simple objects such as coins, blocks, or tiles. More complicated materials can be used to represent multiplication and division problems.

The use of concrete representations may assist the learning process in a variety of ways. Using physical materials for math may facilitate ;

- creation of mental images representing concepts used for calculation.
- allowing students to practice figuring out important parts of problems and disregarding unnecessary information.
- Ability to abstract the central ideas represented in mathematics problems (Chao, Stigler, & Woodward, 2000).

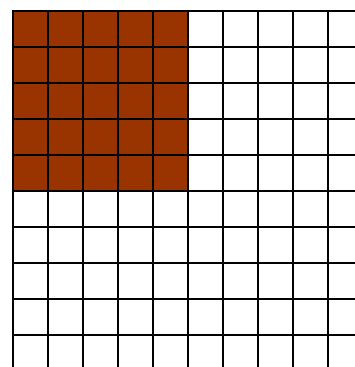
With this importance of using manipulatives, we have to realize that If materials are not presented in a way that allows for individual representation in problem solving, students may have flexible internal models supplanted by a rigid external system that they cannot use effectively. So, Classrooms should provide

a variety of manipulatives that complement the material to be learned and allow for creative solutions to problems.

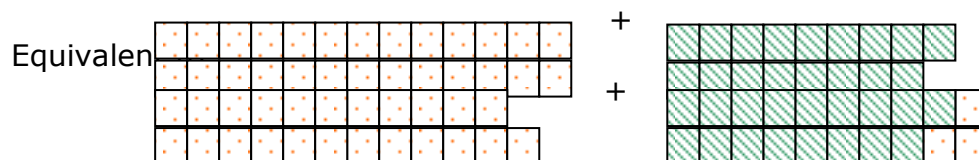
With Gardner's identification of spatial intelligence as one of the intelligences, visual learning techniques like visualization, color cues, picture metaphors, concept maps, sketches, diagrams, and graphic symbols came into greater use. (Armstrong, 1994) For those students who are visual learners, these created new opportunities for participating more fully in the learning process. (Cited in Murphy, 2009)

Visual representations will also help students connect benchmark fractions and percents (eg: 25% = $\frac{1}{4}$).

Another example, a real-life application would be, a girl who sells sweet breads. She knows that it costs her 25 pound in materials to produce one batch. If she wants to make a modest, 20% profit, how much should she charge for a batch? In this case, 100% = 25 pound, so the entire grid filled in represents 25 pound. The girl might cut the grid into fifths (20%). 20 squares therefore represent 5 pound. 10 squares equal 2.50 pound and one square, or 1% is 0.25 pound. Building back up, 120% would represent (120 x 0.25 pound) or 30 pound.



Third example, adding $26 + 17 = 23 + 20 = 43$, by using visual approach as following:



Finally, Teachers can prepare materials that help to convey ideas visually- like charts, graphs, physical models, and diagrams. They can encourage students to draw images to explain or solve problems.

In addition, Models can be created to demonstrate processes, such as the addition and subtraction of integers and fractional numbers. Students can discuss visual models, how they interpret them, and what they mean.

2. The Research Importance

First, the most important point in this Research is to provide a resource to improve computational fluency ability for students in elementary stage in governmental schools in Alexandria. Second, this research highlights the correlation between the achievement level, and computational fluency ability.

3. The Research Questions

- What is the impact of Activities based on visual models on students' computational fluency?
- Is there significant relation between achievement and computational fluency?

4. Method

4.1. Participants:

The Participants in this study were Two samples (Two Classes) in Elementary school in Alexandria. The first Sample had 40 students (22 males, 18 females) and formed the experimental group. The Second Sample had 38 students (21 male, 17 female). The two groups didn't differ in mean age (9 years), or mean achievement.

4.2. Procedure

First, after preparing the computational fluency test in the written form, The Internal consistency reliability (Cronbach's alpha) was calculated using SPSS; the reliability value was .85

Second, Pre and post test "computational fluency test"(CFT) were administered Mentally during the first term 2009/2010., The experimental group was taught by the new teaching model, which includes many of the suggested Mathematical visual activities (MVA), for six weeks, and the control group was taught by the traditional model.

5. Results

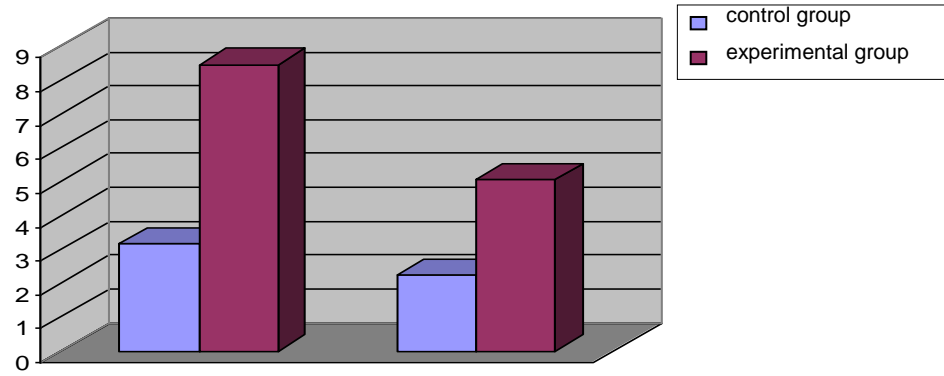
To address the first research question that looked at using activities based on the visual approach to develop computational fluency, the *t*-test was computed for the post test measures of the two groups' students (control and group). For post test data, the *t*-test for total test 803 was statistically significant ($t=5.803$). After that the effect size was computed for the pre and post test of the experimental group ($d=3.41$).

t - Test Results for components of CFT for the Two groups (experimental and control)

| Test components | Group | M | SD | t | t |
|---|--------------|--------|-------|------|-------|
| Word problems (Addition & Subtraction) | experimental | 3.1750 | .7808 | 4.88 | 5.803 |
| | control | 2.2368 | .9134 | | |

| | | | | | |
|--|--------------|--------|--------|------|--|
| Numerical problems (Addition & Subtraction) | experimental | 8.4500 | 1.6787 | 9.39 | |
| | control) | 5.0526 | 1.5058 | | |

Note. $df = 76$. All comparisons significant at $p < .001$.



| | |
|--------------------------|--------------------------|
| Numerical problems | Word problems |
| (Addition & subtraction) | (Addition & subtraction) |

Figure1: Distribution of post computational fluency test scores

To address the second research question that looked at the relation between achievement and computational fluency, bivariate correlations were computed for the post test measures to investigate that relation. For post test data, the correlation coefficient between achievement scores (the latest monthly achievement scores) and computational fluency scores was statistically significant ($r=0.68$).

6. Discussion

The results showed significant differences across two major components of computational fluency test for the experimental group, specifically, for the numerical problems related to basic arithmetic process (addition & subtraction) as shown in figure1. According to this result, there is a very high statistical significance in using a package of activities designed in the light of the visual approach in increasing students' ability for computing fluently.

It is clear that the promotion of number sense through teaching basic facts using visual models is critical to a basic understanding of mathematics and to a child's ability to compute easily.

The second result show significant correlation between achievement level and the ability for computing fluently. Hence, any increasing in computational fluency will be followed by an increase in the level of overall performance.

These findings necessitate further research on classroom practices, curriculum content and organization at the other elementary grades and at the middle level to examine the decline in mathematics proficiency seen in these students.

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Evaluation of Service learning in ICT curriculum

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Abstract

Theoretical knowledge without (practical) skills and weak connection between university education and labour market needs are two most important educational issues facing higher education in Croatia today. Higher education in Croatia lacks emphasis on the integration of theory and social needs. Service learning (SL) is a teaching strategy that connects meaningful community service with academic learning and civic responsibility.

SL was introduced into Information Science curriculum at the Faculty of Humanities and Social Sciences in Zagreb for the first time in 2006/07, with the goal to transform the old teaching style. This study examined the quality of 40 SL projects using Youth Service California's Service Learning Quadrant (2000). The results showed that SL can become a useful academic tool in transforming our Department and Faculty into a place that meets the needs of the new economic reality of changing markets and rapidly developing technology.

Keywords: Service learning project evaluation – Educational change – Citizenship – ICT (Information and Communications Technology) – Academic and social community

1. Introduction

At the Department of Information Sciences at Faculty of Humanities and Social Sciences in Zagreb we introduced service learning for the first time in the final year of graduate studies in the Academic Year 2006-2007. After the successful project outcomes in the test phase, service learning was introduced in the final year of undergraduate study as well, as a part of a new academic program in the Academic Year 2007-2008.

Since information science covers a wide range of topics and due to the fact that information literacy is an important social issue, while the social need for a visual identity (especially in the electronic environment) is constantly growing, information science students truly have a great field for activity where they can meet different interests and apply specific knowledge and skills. Therefore, the project themes varied, yet all the projects were aimed at linking the goals of information science studies with IT problems to meet specific community needs. Tables 1, 2, 3 and 4 outline 40 Service Learning (SL) projects.

| Project theme | Theme abbreviation | Partner | Short project description |
|-------------------------------------|---|---|--|
| Visual identity of social community | 1. VIDS I 2. VIDS II 3. VIDS III 4. VIDS IV 5. VIDS V | 1. Association of extreme sports, Slavonski Brod 2. Zagreb City Museum 3. Alternative-cultural center "Yuma" – for youths in Imotski 4. Association of Martial Arts Krav-Maga 5. Thai Boxing Club "Mustang" | 1. Production of video material and promotional CDs as part of the <i>sports against drugs</i> initiative 2. Brochure design - a guide through museums in Zagreb 3. Graphic solution for the museum exhibition "Light of the gods" 4. Design of flyers, posters and other promotional materials 5. Design of flyers, business cards, logo and website |
| Multimedia educational software | 1. MEDS I 2. MEDS II 3. MEDS III 4. MEDS IV 5. MEDS V | 1. Association of the Blind and Visually Impaired Students "Šišmiš" 2. High School "Velika Gorica" 3. Elementary School "Braća Ribar" in Sisak 4. Zagreb City Museum 5. Flight Centre CROATIA - Parachute Section | 1. "Internet for the blind": design of audio guides for navigation and usage of the Internet for blind and visually impaired students 2. Development of educational software and computer sample exam for the state graduation exam 3. Educational quiz (Fun and Games) for computer assisted teaching in junior school 4. Workbook for children to complete during a visit to a museum and art workshops 5. Designing videos, posters, multimedia presentations, and performance-media promotional activities |

Table 1: SL projects at the Department of Information Sciences (1/4)

| Project theme | Theme abbreviation | Partner | Short project description |
|--|-------------------------------------|--|---|
| Educational workshops for the broader population | 1. EDR I 2. EDR II 3. EDR III | 1. Zagreb City Library - Children's Section 2. Fourth High School, Zagreb 3. Typhlological | 4. English Language Workshop for Children 5. Web workshops and cryptography workshops 6. Workshops for children to learn about everyday life of blind |

| | | | |
|--|-------------------------------------|--|---|
| | | museum | and visually impaired people |
| Interactive database with multimedia content | 1. IBP I 2. IBP II 3. IBP III | 7. The association "Friends of animals": ZegeVege project 8. Elementary School "Vukovina" in Velika Gorica 9. Scouts team "Bota" | 1. Developing vegetarian database and a CD with multimedia content 2. Developing a database for students with disabilities and training teaching staff in the database usage 3. Developing a database of scout activities to help the members plan their activities |

Table 2: SL projects at the Department of Information Sciences (2/4)

| Project theme | Theme abbreviation | Partner | Short project description |
|-----------------------|--|---|---|
| School website | 1. WZS I 2. WZS II 3. WZS III 4. WZS IV 5. WZS V | 1. Elementary School "Zdenko Turković", Kutjevo 2. Elementary School "Ljudevit Modec", Križevci 3. Elementary School "Josip Juraj Strossmayer", Đurđenovac 4. Elementary School "Žuti Brijeg", Zagreb Elementary School "Petar Zrinski", Jalžabet | Web design and staff training in site updating |
| Faculty website | 1. WZF I 2. WZF II | 1. Section for Sinology, Department of Indology and Far-Eastern Studies, Faculty of Humanities and Social Sciences in Zagreb Department of Hungarian, Turkish and Jewish language and literature, Faculty of Humanities and Social Sciences in Zagreb | Web design and faculty training in site updating |
| Web site for teachers | 1. WZP I 2. WZP II | Faculty of Humanities and Social Sciences, University of Zagreb | 1. Web design and teacher training in site updating |

| | | | |
|----------------------|-------------------------------------|---|---|
| | | | Digitization of teaching materials and their integration into online versions of courses |
| Website for students | 1. WZS I 2. WZS II 3. WZS III | 1. Information Science Students' Club "KSIZ" 2. Italian language and literature Students' Club "Pinocchio" 3. Ethnology Students' Club "Domaći" 4. The Association of the blind and visually impaired students "Šišmiš" Croatian Association of Shipbuilding Students | 1. Designing news websites with member database and promotional materials for the club 2. Website design and training members in updating 3. Collecting and digitizing data, website design, translation into English |

Table 3: SL projects at the Department of Information Sciences (3/4)

| Project theme | Theme abbreviation | Partner | Short project description |
|------------------------------------|---|--|---|
| Website for school library | WZŠK | 1. Elementary School "Medvedgrad", Zagreb | The school library's website design which is to facilitate students with an insight in the library fund and preferred literature and also inform them about the activities and working hours of the library. The site contains the links to the library fund, the activities, reading lists, etc. |
| Web for a broader social community | 2. WZDZ I 3. WZDZ II 4. WZDZ III 5. WZDZ IV 6. WZDZ V 7. WZDZ VI 8. WZDZ VII 9. WZDZ VIII 10. WZDZ IX 11. WZDZ X | 1. Cerebral Palsy and Children Paralysis Association 2. The Association "Yoga in Everyday Life" 3. Vocal Ensemble "Dišpet" | The collection of documents and digitization of data, data processing, website design and training staff in site maintenance |

| | | | |
|--|--|--|--|
| | | <p>4. Scouts and explorers' club "Blue Mountain"</p> <p>5. The Association "In other way", school for adoptive parents</p> <p>6. HDIO – Croatian Society for Internist Oncology of the Croatian Medical Association</p> <p>7. A capella Christmas street singers association</p> <p>8. European Youth Parliament in Croatia</p> <p>9. HVIDRA – The association of Croatian homeland war invalids</p> <p>10. DITS - Society of Engineers and Technicians in Samobor</p> | |
|--|--|--|--|

Table 4: SL projects at the Department of Information Sciences (4/4)

2. Project Evaluation and the Service Learning Quadrant

This study examined the quality of 40 SL projects using the Youth Service California's Service Learning Quadrant (2000), developed by the Center for Service Learning at Stanford University in California in the United States, which offers an effective method to distinguish the difference between high-level and low-level community service, as well as the difference between unrelated learning and integrated learning projects. The diagram contains two lines to create four quadrants. The horizontal line represents learning. Unrelated learning on the left shows that there is no clear ongoing connection between SL projects and the knowledge, skill or value that the student acquired within the course, i.e. between community service and academic learning.

In the quadrant on the right, related learning shows the close connection between useful community service and the goals of academic course.

Low service projects at the bottom of the vertical line represent projects that do not meet a real need as defined by the community. At the other end of the vertical line there is high service, i.e., the activity that is systematically organized and meets the real need as defined by the community. Figure 1 graphically shows the distribution of projects in the SL quadrant after completion of evaluation projects. After evaluation of each student project, title shortcuts in the quadrant signify identification of project clusters in each quadrant. Clusters are labeled with letters A-D.

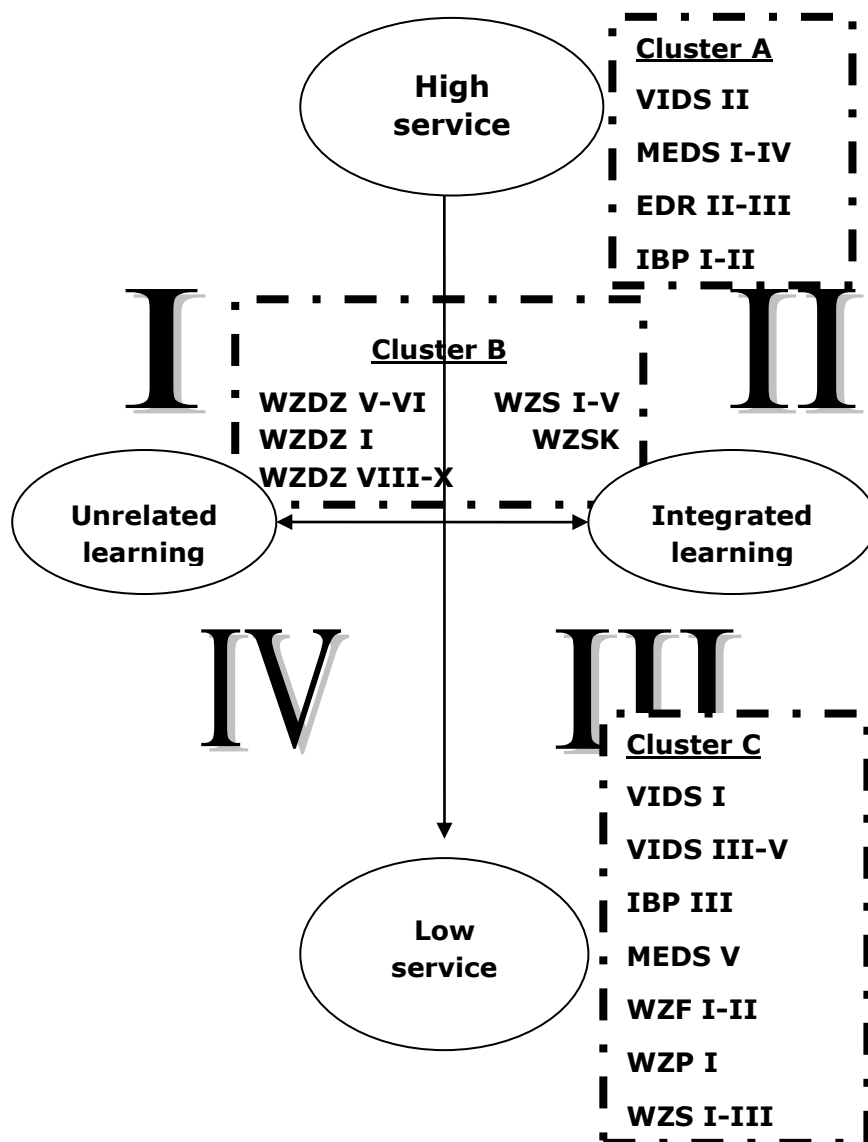


Figure 1. The quality of integration of high service and academic learning in the study of Information Sciences.

Content of the projects in cluster A is directly related to the community need. In most of these projects, the students chose the project in consultation with the supervisor in the chosen NGO, school, library or museum. The teacher did not suggest any partner, NGO or topic. For instance, students of museology found

that their colleagues and friends visited museums poorly, but also that it is difficult to find funding for promotion of museums at the university in the form of posters and brochures. Therefore, they designed an e-brochure with appealing design, freely accessible on the website of the Faculty for all students who want to discover the world of museums in Zagreb. Another project group consisted of students of museology and information technology students with teacher orientation, who mutually designed a workbook for children to complete during a visit to the museum and art workshops to help them acquire knowledge in a museum.

A group of information technology students with teaching orientation found that high school seniors need assistance in the preparation of the state graduation. During their studies, the students learned that the best way of knowledge repetition and self-assessment are multimedia computer applications. Therefore, possessing the appropriate knowledge in the field of information technology, they designed a tool to assist graduates in preparing the state graduation exam. Another group of information technology students with teaching orientation found that the graduates were generally not well and timely informed about the characteristics of the study they want to enroll. Therefore, they organized a web workshop and a cryptology workshop in order to help high school graduates find information on their future study on the Internet. This way, the students promoted their study and faculty. Finally, a group of students who chose to help the NGO "Friends of Animals", designed an IT project which aimed to inform the citizens about the vegetarian products available in our stores, encourage them to a healthier lifestyle using vegetarian recipes and to learning about healthy food in an interesting way: via interactive database and multimedia applications on a CD-ROM. The NGO promoted their products by distributing the CD application for free at an event organized during the No Meat World Day.

Each of these SL project groups met a real social need, applying the theoretical knowledge gained during their studies and acquiring new skills required for activities that they selected due to their interests.

In cluster B the students also applied the knowledge gained during their studies for the design of SL projects. However, the choice of the projects was limited to website development and thereby the application of theoretical knowledge was reduced to a narrowly specified area. The scope of additional skills and knowledge gained through the project was considerably smaller than the knowledge and skills of the students in cluster A. The students of librarianship had the opportunity to provide instruction for school librarians on using and updating the web. Also, the students of information technology with teacher orientation designed the websites according to the needs and interests of school children and teachers, having an opportunity to work in a school setting.

Cluster C contains high-quality projects in which students applied a full range of knowledge acquired in college, deepened the knowledge and achieved interesting results, but they did not meet the social needs defined by SL: it was not an activity performed in a new environment that is challenging, where they could have faced unplanned problems and frustrations. These were exclusively the projects for students and teachers at the faculty, during which the students did

not have to leave the faculty in any particular point in time, or participate in an unknown environment, which is an important component of the SL project.

Cluster D contains projects which are characterized by high-quality community service that was not well connected to learning objectives and goals of the study. In one project, the students have designed a workshop in English for children in the town library. Although the project was useful for children, it was associated with the objectives of the study of English language and literature, rather than information science and the only role of the library was to provide the activity space. If the students were to create a workshop for children that would make the inventory of the library closer to them, then it would be a good SL project that meets social needs and objectives of the study. In another project, the students were engaged in digitization of teaching material for a specific academic course and they integrated this material in the online version of the course. Although the project was useful for teachers of that particular course, the students' activity did not require a high level of linking of theoretical and empirical knowledge, i.e. the project did not represent a satisfactory intellectual challenge for the students to encourage them to further connect knowledge and concepts of the study.

3. Student Assessment in the Service Learning Course

Assessment of learning through service learning is more complex than the standard assessment of oral and written tests. Therefore, it was important for us to connect assessment of learning with the goals of the project in order to get a preview of the achieved results and expectations. For this reason, we included the students in the process of determining the evaluation criteria prior to the implementation of the project by analysing the project characteristics, evaluated by the students as ideal, at the very beginning of the term. We jointly defined assessment criteria on the basis of the description of that ideal project.

Assessment of quality and students' performance in community engagement is an important issue of project evaluation. For this purpose, we designed a tool for gathering information from the social partner – initial and final interview conducted by the control team. Final evaluation of the social partners on the assessment of students' involvement in the project was based on:

- ↪ Perception of the students' commitment
- ↪ The level where the students met (or did not meet) the expectations (of the teachers, social partners, their own)
- ↪ Individual assessment of the quality of students' work (executing tasks, professional conduct with customers, independence in work, attitude to staff in an organization, self-awareness, efforts to acquire the necessary skills and knowledge)
- ↪ Did the project actually help the customers

Other student responsibilities, each of which carries a part of the course grade are:

- ↔ Written application of the project (objectives, organization, type of project, division of work on the project, etc.)
- ↔ Oral presentation of project plan, project goals and implementation plan of project tasks within the group
- ↔ A written report on the project results
- ↔ Oral presentation of the project results
- ↔ Keeping a log file
- ↔ Final results' assessment (if they exist)
- ↔ (Self-)assessment of students within a teams on other team members' engagement

Since we encouraged the students to participate in discussion, in order to review their work and their effectiveness on the project and their impact on members of the community, one of the components of final grading was their critical review of projects. During the final grading, we constantly had in mind to evaluate students' ability to connect theoretical concepts of the course and study with the activities of the project (using the daily log file and evaluation of achieved objectives and results of the project). Besides evaluating individual students on the SL course, at the end of the academic year we evaluated the success of the entire course. Evaluation is the key to continued progress, and student self-assessment can be of great help for future SL projects.

The evaluation questionnaire consists of 20 yes/no questions, rounding up questions and open type questions and asks the students the following:

- Sex
- if they dealt with volunteering prior to work on SL projects
- would they recommend the next generation of students to enrol in the course
- is 5 ECTS credits and schedule 1 hour lectures + 3 hours of seminars satisfactory
- if SL project work was a rewarding experience
- if they perfected some existing knowledge and/or skills
- if they adopted some new knowledge and/or skills
- if they would, now, after working on SL projects, deal with volunteering if this would be something to be valued in a work booklet
- which of the activities they find more appealing: volunteering unrelated to the course and studies (any major) or volunteering which is directly linked to courses and the study (any major)
- whether their community SL experience was: more educational than the traditional seminar at the university, the same as traditional educational seminar at the university, or less educational than the traditional seminar at the university

- to assess the overall quality of their community service learning experience (on a scale 1-4, where 1 = poor, 4 = excellent)

- if they would recommend the organization they were dealing with to future students

- if they think that participation in a project of community service learning should be compulsory for all students at the Faculty

- on a scale 1-5 (1 = strongly agree, 5 = strongly disagree) the students have to assess whether after the SL projects they:

- a) better understand the needs and problems in the society in which they live
- b) feel responsible for progress in the society
- c) became aware of some personal bias after the project work
- d) think that the social aspect of the course demonstrated how they can become involved in social activities
- e) still plan to volunteer and assist the community

- on a scale 1-5 (1 = strongly agree, 5 = strongly disagree) they have to assess whether after the SL projects they:

- a) think they better adopted the content of the course and study through the concrete application of knowledge to real problems in society
- b) reflect on their future career and educational objectives
- c) think that the idea of combining the course with the obligation of helping the society should be implemented in more courses at the Faculty
- d) want to encourage other students to enrol in the SL course
- e) think that their SL project was really useful for the society

– what they find as most important in the experience of community service learning

– to which of the following areas the project had a positive impact:

- a) the future choice of courses
- b) attitude towards study and work after study
- c) the relationship with the professor of the course
- d) the decision to continue their studies after graduation
- e) adoption of specific skills and knowledge
- f) attitude toward community service learning projects
- g) attitude towards faculty where SL projects are implemented
- h) self-confidence
- i) ability to work in teams and learn
- j) insight into personal weaknesses and abilities
- k) feeling of personal achievement
- l) a sense of social responsibility or involvement in society
- m) moral/ethical development
- n) development of skills such as communication, problem solving, persistence
- o) understanding social differences

- p) application of knowledge gained in the study
- q) enrichment of knowledge gained in the study
- r) the desire to help others
- s) knowing the society they live in

– suggestions and comments on the social organization which they cooperated with

– evaluation of teachers and organizations in which they carried out a project on the scale 1-5 (1 = strongly agree, 5 = strongly disagree)

- a) kindness and availability of teachers and undergraduate assistants (e-mail, consultations, etc.)
- b) kindness and support of mentors in the organization
- c) adequate access to information and help with gathering materials
- d) meaningful tasks and objectives of the project
- e) recognition of personal efforts and work

Through this evaluation form we learned on students' SL experience. The questionnaire deals with all aspects of student involvement in the academic course and the community. We use a scale to measure performance, satisfaction and learning, clearly indicating the level of scale and providing space for comments, so that students could refer to results.

Evaluation helps both students and teachers to see if the course objectives have been fulfilled. While evaluating their own experience, the students enter the phase of active experimentation of Kolb's cycle of learning. SL projects have to be evaluated from several perspectives: the success of each project evaluated by each team member, all students attending the SL course, the social partner and the final user of the product or the service. Continuous cooperation between students, social partners and teachers is necessary in order to achieve the appropriate result and avoid negative evaluation reports.

4. Conclusion

Socially useful learning offers students a unique opportunity of recognizing the complexity of the concepts of academic courses and research issues. For us teachers, who are accustomed to the traditional system of evaluation and assessment, sometimes makes a problem to assess students' knowledge of the SL course. By traditional methods, we evaluate adoption of, basically theoretical knowledge. In addition to the adoption of theoretical knowledge, this course enabled the students to integrate the knowledge with experience. Therefore, we can conclude the following: if traditional methods can be stretched enough to include this additional element, we can use them to evaluate students' knowledge of the SL course, but it is really important that by evaluation methods we are able to embrace the benefit that the students get by the integration of knowledge and experience.

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Pedagogical Reflection in the System of Music Teacher's Preparing

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Abstract

Pedagogical reflection is the ability and need to learn, to understand one's own conditions, to compare tasks, deeds and achieved results in real pedagogical situations with the aim of control, evaluation, correction and development of one's pedagogical practice and communication. The music teachers' involvement into the analysis of contradictions, giving them the opportunity to identify and choose the meaning of various pedagogical actions, approaches, conceptions is the starting points of the development music teachers' reflective and methodological culture, which expresses both their personality position and the reflective and creative side of their professional development.

Key words: pedagogical reflection - reflective activity - music teacher - critical thinking - teacher's personality - the process of acquiring a composition - self-regulation

1. Introduction

At present the goal of educational process is not acquiring in ready knowledge; it is developing in a certain way of thinking, which provides gaining and producing the new knowledge (Lisle, 2006). The focus only on the development of skills at the expense of thinking of teaching music can also be problematic in music teaching (Baldwin, 1980).

The problem of reflection is many-sided and diverse: it has philosophical, psychological, pedagogical, methodological and other aspects (Adler, 1991; Stepanov 2000; Lefevr, 2003 etc.). Today we can see a striking contradiction: on the one hand, many teacher education programs focus on skill development rather than the development of student's reflection; on the other hand, limiting preservice education to practicing prescribed skills might inhibit the development of thoughtless practitioners who might later regard reflective thinking as beyond their roles or capabilities. A low level of reflection is often related to being unaware of difficulties in the pedagogical activity both in the field of the study process projecting and in communication with the student (Davidova, 2000; Heikkila & Lonka, 2006).

Within the process of reflection teachers can be allowed to confront their own practices and beliefs, share experiences and knowledge with colleagues, link music learning to societal and local needs and goals. In that way, teachers can make more informed judgements when teaching music (Lee, 1991). The importance of reflection is well recognized in both teacher education and the teaching profession, teacher training and development programs fail to turn out

highly competent reflective practitioners. Teacher training and development programs simply are too short to provide learners with sufficient opportunities to master the reflection skills at a high level. Next to the lack of time in teacher training programs, the quality of reflection instruction can be brought forward as a failure factor for reflection skill learning. D. Boud and D. Walker (1998), for instance, mention the negative effects teacher's misconception of reflection can have on acquiring the reflection skill. According to them, misconceptions on the nature of reflection can lead to instrumental or rule-following approaches to reflective activities.

Aim of the study: To investigate psychological and pedagogical aspects of the development of would-be music teacher's pedagogical reflection.

Methods of the study: analysis and comparison of the conceptions in psychology and pedagogy.

2. Pedagogical reflection as a key of teacher's professional development

Reflection, defined as the mental process of (re)structuring experiences, existing knowledge, or insights (Korthagen & Wubbels, 1996), is currently a key concept in teacher training and development. The ability to reflect is regarded essential for both the individual teacher and the teaching community at large. For the individual (aspirant) teacher it is strongly believed that elaborate and ongoing reflection on the learning process is important for initial skill learning and subsequent professional development (Schön, 1983; Berkey, Curtis, Minnick, Zietlow, Campbell & Kirchner, 1990; Adler, 1991; Barry, 1992; Kagan, 1992; Brookfield, 1995; Slastenin, 2005). For the teaching profession at large teachers' distinct reflection skills are considered key ingredients for inducing and guiding educational change and reform (Griffiths, 2000).

While researchers of reflective practice emphasize starting with one's personal experiences, they also stress the importance of critical analysis and reformulation of that experience (Argyris, 1990; Mezirow, 1991; Burbules, 1993; Senge et al., 1994; Brookfield, 1995). While acknowledging the importance of experience, it is also important to recognize its potential for distortion. Typically, the terms reflective thinking, critical thinking, reflective judgment as well as critical reflection have each been used to define a way of thinking that accepts uncertainty and acknowledges dilemmas, while ascribing less significance to the role of self in the reflective process (Dewey, 1933, 1938; King & Kitchener, 1994; Sparks-Langer & Colton, 1991; Zehm & Kottler, 1993).

The type of learning, called "transformative learning", represents a self-reflective process that occurs on several levels, but the creator of the theory of transformative learning, J. Mezirow (Mezirov, 1978, 1991), coined the term "transformative learning" to refer to learning that is based on reflection and on the interpretation of the experiences, ideas, and assumptions gained through prior learning. This type of learning is rooted in the meaning-making process that is central to constructivism, where the environment provides support and

develops ability to dialogue and critically reflects on the material presented and on the self. Transformative learning is actually a complex series of interactions that is multidimensional.

According to P. Cranton, the theory of transformative learning by J. Mezirow has evolved "into a comprehensive and complex description of how learners construe, validate, and reformulate the meaning of their experience" (Cranton, 1994, 22). Changing their "meaning schemes (specific beliefs, attitudes, and emotional reactions)", learners must engage in critical reflection on their experiences, which in turn leads to a perspective transformation (Mezirow, 1991, 167), which is the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world, changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrating perspective; and, finally, making choices or otherwise acting upon these new understandings. J. Mezirow (Mezirow, 1995) suggests that transformative learning happens through a series of phases that begin with the disorienting dilemma.

Pedagogical reflection is the ability and need to learn, to understand one's own conditions, to compare tasks, deeds and achieved results in real pedagogical situations with the aim of control, evaluation, correction and development of one's pedagogical practice and communication.

3. Developing music teacher's reflective activity

The route to becoming a reflective practitioner is plagued by incremental fluctuations of irregular progress, often marked by two steps forward and one step backward. There are necessary and predictable stages in the emotional and cognitive rhythm of becoming critically reflective (Keane, 1987; Usher & Bryant, 1989; Berkey et al., 1990).

Reflection involves understanding one's own process of learning. It entails experiencing understanding of oneself as a learner in a variety of contexts. By organizing, monitoring, and evaluating one's learning someone can derive a renewed state of understanding about one's performance (Schön, 1983). Moreover, reflection is an active, intentional, and purposeful process of exploration, discovery, and learning, which is embedded within social interaction. Interactivity is an important condition for gaining multiple perspectives on learning and receiving feedback on one's own performance and understanding. Multiple perspectives on student performances can be provided by teachers by means of expert modeling. However, these perspectives can also be presented to the learner or commented upon by fellow students.

A motley collection of tools exists for supporting reflection (Bennamar, 2004). The most popular tools, e.g. portfolios and journals or logbooks, focus on externalizing and capturing reflective thinking. By committing reflective thinking to paper or computer, it is possible to step out of the (learning) process and allocate time for observing and evaluating preceding performance and learning. Tools such as portfolios and journals are therefore particularly useful for supporting reflection on action, which was defined as "the active process of

making sense of past experiences for the purpose of orienting oneself for current and/or future thought and action" (Schön, 1983, 91).

Ideally this is a spiral process that includes alternating stages of acting, learning from the actions, and improving the action. Korthagen (1999; 2001) introduced a five-phase spiral model that describes the reflection on action process. It includes a) action, b) looking back on the action, c) awareness of essential aspects, d) creating alternative methods of actions, and e) trail, which is the action phase of a new reflection cycle.

Spiral reflection is regarded a basic form of reflection on action and has been extensively used for reflective practice (learning) in teacher education (Bennamar, 2004). Reflection on action contrasts with reflection in action, which means that the learner manages the process of learning on-line while it is taking place, and constantly adjusting and changing it as new information is assimilated (Schön, 1983).

The D. Kolb model, which is based on the *Experiential Learning Theory* (ELT), outlines two related approaches toward grasping experience: concrete experience and abstract conceptualization, as well as two related approaches toward transforming experience: reflective observation and active experimentation (Kolb, 1984). According to D. Kolb's model, the ideal learning process engages all four of these modes in response to situational demands. In order for learning to be effective, all four of these approaches must be incorporated. As individuals attempt to use all four approaches, however, they tend to develop strengths in one experience-grasping approach and one experience-transforming approach. The resulting learning styles are combinations of the individual's preferred approaches. These learning styles are as follows: converger, diverger, assimilator, and accommodator.

Convergers are characterized by abstract conceptualization and active experimentation. They are good at making practical applications of ideas and using deductive reasoning to solve problems. Divergers tend toward concrete experience and reflective observation. They are imaginative and are good at coming up with ideas and seeing things from different perspectives. Assimilators are characterized by abstract conceptualization and reflective observation. They are capable of creating theoretical models by means of inductive reasoning. Accommodators use concrete experience and active experimentation. They are good at actively engaging with the world and actually doing things instead of merely reading about and studying them.

D. Kolb's model gave rise to the learning style inventory, an assessment method used to determine an individual's learning style. An individual may exhibit a preference for one of the four styles – accommodating, converging, diverging and assimilating – depending on his approach to learning via the experiential learning theory model.

G. Gibbs (1988) described a reflective cycle that is often used by education practitioners: description, feelings, evaluation, analysis, conclusion, action plan. Using G. Gibbs' model in music teacher's practice is very straightforward. First, music teacher chooses your own 'critical incident'. This can be any event that

he/she feels shows a development need or that teacher struggled to deal with effectively. Using this incident to follow the six stages of the G. Gibbs cycle, teacher can follow it through and capture his/her thoughts (this also allows teacher to refer back to it at a later date).

4. The development of a student's reflective activity in the process of acquiring a composition

The complicated process of the formation the performing conception, starting from its emergence in the consciousness (as a general emotional perception of music) to the formation of concrete bright and generalized images of a composition, requires from a performer an intense activity, during which knowledge is used and perfected, individual techniques and methods of work are enriched, the ability of analytical activity is developed. All this leads to practical findings. This voluminous and multi-faceted creative act is entirely the reflection of creative and functional abilities of a performer's inner-hearing sphere. This act is based on the activation of this sphere, and besides the ability to anticipate the logical sequence of sounds, comprises also components belonging purely to the performance aspect, such as displaying initiative at interpreting the ideological and imagery content of a composition and ability to avoid using hearing clichés in the performance conception of this composition.

In the result of a subjective evaluation of the artistic and imagery content of a composition, by letting it through the prism of his/her mind, a performer transforms and stresses various facets of this image in accordance with his/her own musical and hearing conception about the logic of the development of its artistic content. The sound image which emerges in the imagination of a performer bears an imprint of his/her individuality. The performer's attitude towards the outside world, his/her temperament, peculiarities of his/her thinking are reflected in the dynamism of the musical image created by him/her, in the emotional saturation of the image and also in his/her choice of expressive means and techniques of interpretation. A performer's interpretation of the composition is full of intonational and colourful findings which reflect his/her individual musical thinking and are the transformations of the qualities of his/her inner hearing experience, but they also exhibit a subjective emotional attitude.

At revealing the imagery pattern of the composition by using those expressive means that are most appealing to his/her artistic individuality, the performer endows the musical image with features characteristic of his/her own inner feelings and relies on his/her own subjective musical-auditory conceptions. To put it differently, at being transformed in the performer's mind, the musical image acquires new qualities which are characteristic of the creative manner of this concrete performer.

The skill to be constantly aware of external and internal hearing information contributes to creating a situation when in the process of musical – performing activity not a single movement is performed without the hearing control. This leads to ensuring the effectiveness of movements in playing and relieves physical and muscular tension that hinders the reproduction of a mental sound picture. It

also adjusts the subconscious level of audio-motor links, the so called performer's "*hand that can hear*". Such reflection leads to a complex experience of the unity and integrity of audio-, motor- and mental processes, which allows the performer to freely use his/her motor apparatus for revealing the emotional and imagery content of music.

Thus, the rise in the level of reflection (i. e. the increase in the scope of information in all its modalities) leads to the musician's better command of his/her motor apparatus and its coordination with hearing representations. If the level of reflection is high, the situation that the performer might lose the orientation in the text during the performance (fear before the performance is a constant performers' problem) is practically impossible, because the musician is guided by an integrated picture of a performance and, if something goes wrong with one of modalities, the control over the whole situation is not lost. Besides, the skill to be always aware of one's own emotional states in extreme situations of performing at a concert allows to control oneself and to focus the attention on elements of positive and constructive orientation, grounded on the feeling of confidence and freedom, rather than on trying to resist fear and cope with the anxiety.

The construct of self-regulation refers to the degree, to which individuals are metacognitively, motivationally and behaviourally active participants in their own learning (Zimmerman, 1994, 2001). The centre of self-regulated learning is strategy selection, monitoring and revision (Borkowski & Mutuukrisiina, 1992). Learning strategies are generally conceived of as deliberate or purposeful processes, originally consciously applied, but normally undergoing automation as a result of development and practice (Schneider & Weinert, 1990). If we view learning and study strategies as activities aimed at achieving a particular goal (Weinstein & Mayer, 1986), no single learning strategy will work equally well for all students, and few, if any, strategies will work optimally on all tasks. The effectiveness of a strategy will be prone to change as a skill develops (Zimmerman, 1998). Several studies have illustrated the individual diversity in the way advanced students and musicians learn during practice (Chaffin & Imreh, 1997; Nielsen, 1997, 1999a, 1999b; Hallam, 1992, 2001b).

Motivation and self-regulation are important dimensions of music practice (McPherson & Renwick, 2000; Nielsen, 1999a, b, 2001; McPherson & Zimmerman, 2002). The self-regulatory methods that a student engages in during solitary practice are a prime determinant of effectiveness (Schunk & Zimmerman, 1998). No single learning strategy will work equally well for all students, and few, if any strategies will work optimally on all tasks. The effectiveness of a strategy will even change as a skill develops. As a result of these changing interpersonal, contextual and intrapersonal conditions, self-regulated learners must engage in cyclical activity (Zimmerman, 1998, 2000). In Zimmerman's conception, self-regulation is not seen as a fixed characteristic, but rather as a set of context-specific methods that students select from in order to accomplish a task (Zimmerman, 1994, 1998, 2000, 2001). To understand these methods of self-regulation, it is necessary to examine whether the students decided upon specific outcomes of learning for each learning period, whether they sought out opportunities to evaluate their learning efforts, and which criteria they used to evaluate themselves.

According S. Hallam, metacognitive strategies are concerned with the planning, monitoring and evaluation of learning. They are crucial to all aspects of practicing, and can be considered at the level of a particular task or in relation to the more global concerns of the musician to maintain or improve the standard of their playing. In both cases, knowledge of personal strengths and weaknesses, the nature of the task to be completed, possible strategies and the nature of the learning outcome are important. There are considerable differences between beginners, novices and experts in their knowledge and deployment of different practicing and self-regulating strategies (Hallam, 2001a, 2001b; Pitts et al., 2000), as well as individual differences among musicians and novices at the same level of competence (Nielsen, 1997, 1999a, 1999b, 2001).

5. Conclusions

1. Reflection is one of the mechanisms, which allows the music teacher to be a strategist in professional practice. Its importance is firstly out to the fact that in the process of reflecting the factors of music-pedagogical reality, there appears and gets created the individual personal-professional concept, as well as the system of moral-professional aims, norms, requirements, principles and values. Typically, the terms reflective thinking, critical thinking, reflective judgment as well as critical reflection have each been used to define a way of thinking that accepts uncertainty and acknowledges dilemmas, while ascribing less significance to the role of self in the reflective process.

2. Reflective processes in the music teacher's practice can be seen in the following directions:

- in the attempt of understanding and purposeful regulation of thoughts, feelings and deeds of the student;
- in the process of projecting the student's practice;
- in the process of reflective analysis and self-regulation;
- in the process of stimulating the student's own reflective activity.

3. In the process of music teacher's training it is necessary to create such situations, which would focus on the reflective position, would form positive self-perception, and would stimulate the processes of self-assertion. The following aspects can be pointed out in the music teacher's reflective practice:

- the interest in a problem of music pedagogy;
- finding, judgments and evaluation of the contradictions underlying the problem;
- looking for the reasons and possible variants of solving it, comparing the content of the music-pedagogical task with one's own individual, personal and professional experience, as well as with the experience of other music teachers;

- implementation of practical, logical-constructive activities, which provides him/her with successful solution of music-pedagogical tasks;
- generalizing the evaluation of all the previous stages of reflective practice of the music teacher, which leads to its enrichment and raises it on the meta-level.

In this context the main logical direction is: from broad, generalized judgements about the ways of solving difficulties (i.e. judgement of music-pedagogical problems) to the concrete ways of resolving contradictions.

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Implications of the Selection Process of Ethics Instructors in Schools of Public Administration: Are we doing it correctly?

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Abstract

Are schools of public administration preparing students for the moral and ethical problems they will encounter in government settings? To address this question, this paper examines the selection process of ethics instructors including considerations of qualifications, textbook selection, school from which course is taught (political science, business, public administration) and implications for teaching methodology. Major references for this theme can be found in works of Terry Cooper, John Worthley, Barbara Grumet, Christina Sommer, Richard Rorty, Frank Marini and Allen Bloom. The methodology used to collect data for this paper was a random sample survey of university chairs and a literature review. The end product is an analysis of the survey and literature synthesized into an integrated summary/ conclusions. The research shows the selection of ethics instructors and resulting teaching methodology is arbitrary leading to programs of study that don't prepare students to address workplace moral and ethical dilemmas they encounter.

Keywords: ethics – pedagogy – philosophy - teacher qualifications

1. Introduction

Ethically speaking, American public administration can be described as being in a state of crisis. Scandals, examples of immorality and corruption in government abound throughout the nation. The consistency of reports on such behavior is suggestive of some sort of malignancy. "It is as if a virus has afflicted the behaviors of public officials and the civil servants who should be there to serve the public good. From an epidemiological perspective, it is almost as if a contagion of the mind has inflicted the psyche of government officials ... (Mitchell, 2009)."

In the U.S. schools of public administration have the responsibility of teaching ethics to a variety of individuals in the public arena. The question in this paper is to what extent are schools of public administration addressing this problem. This paper looks at the teaching methodologies and selection process of ethics instructors as a source of the problem.

In the U.S., for comparative purposes, schools of business administration have debated the topic of who teaches business ethics and whether those selected are the best or even capable of teaching ethics. The business literature reflects this concern as well as the educational techniques employed. As concerns for both

areas are similar and because the literature overlaps, some discussion of both will be addressed in this paper.

2. Literature Review

2.1. A call for Philosophical Training

Bruce Maxwell (2008) writes that in early American colleges ethics was considered the most important subject. It was considered "indispensable to the aims of a traditional liberal education; the development of capacities of rational reflection, the acquisition of a broad understanding of the world and one's place in it...(Maxwell, p. 169)." As indication of its importance, teaching ethics was reserved for the college president.

Unfortunately, as Maxwell (2008) reveals, ethics teaching suffered a serious decline during the mid-twentieth century and has only resurfaced as a serious topic during the past 30 years (p. 170). In the United States, political scandals involving the office of the president such as in "Watergate," the Iran-Contra Scandal, impeachment proceedings of President Clinton and the Abu-Ghraib incident in Iraq prompted renewed interest in ethics training in the public sector (Shafritz, et al., 2009; Stillman, 2010).

In the private sector, the collapse of giants such as Enron, WorldCom, Tyco and recently the need to "bail out" AIG Insurance, Goldman Sachs Group, JPMorgan Chase and others due to unethical business practices has prompted a renewed interest in ethics training. Both the private and the public sectors evidence a failure in the area of ethical decision making.

E. R. Klein (1998) writes that "in schools of business ethics, the question of why? when?, how?, where?, and in what way business ethics should be taught in the business ethics classroom inundate the scholarly literature. " Yet, no consensus has been reached in this area of teaching methodology and in fact, the practical value of teaching such a course is challenged.

Schools of public administration suffer the same problem. The public administration literature is replete with discussions of teaching ethics. Yet, the question of teacher competency is conspicuously absent. Importantly, as Klein intimates about the teaching of business ethics, there are those in public administration who question the efficacy of teaching ethics. A review of the literature from both schools underscores the nature of the problem with teaching ethics.

It is from the writings of E.R. Klein that the idea of the qualification of ethics instructors is salient. He would argue that in order to teach ethics to students of higher education, one must be like him, an expert in ethics.

In consideration of his argument, consider the trust we place on individuals in our society who are experts. As Klein cites, for any of a variety of needs, we as a

society consult with experts; e.g., physicians, attorneys, CPAs, etc. Why then do we not take this same approach in the teaching of ethics?

In academia, Ph.D.s are hired and teach according to expertise. Ph.D.s in art do not teach English literature. Ph.D.s in mathematics do not teach psychology or history. Individuals in academia are experts in their respective areas and it is from this perspective that universities hire academic faculties; i.e., Ph.D.s are hired for their expertise in a specific area of knowledge.

To give a simple example of why Klein (2009) feels that a philosopher should teach ethics he said that one need go no further than to ask any member of a business faculty to talk about the problem of ethical relativism in their classroom (p. 566) Klein said that his colleagues don't have a clue as to what to say and this constitutes pedagogical malpractice (p. 566). They lack the academic knowledge to address the topic.

Hetzner and Schmidt (1986) argue that in order to teach ethics, one must include a curriculum "for familiarizing students with a full-range of moral and political philosophical literature from which they can garner the substantive and methodological guidance necessary to sorting out good reasons for their administrative actions and public policy (p. 450)." The authors claim that this approach allows for the study of an array of substantive moral philosophical theories. This method, they claim, encourages the kind of reasoning required of administrators to make ethical decisions. Hetzner and Schmidt suggest that many of the ethical dilemmas faced by public administrators are basic questions of moral and political philosophy and thus, they contend that students need training in the moral and political philosophical literature.

The question in considering Hetzner and Schmidt's comments is who would teach ethics in this manner? The typical public administration professor, it is surmised, has expertise in some area of public administration such as public policy, research methodology, public personnel administration, public budgeting or administrative law. Most do not have the kind of necessary training in ethics as suggested by Hetzner and Schmidt.

Allan Bloom (1987), a University of Chicago professor and philosopher argued in his best seller, *"The Closing of the American Mind,"* that students who attended his classes were devoid of knowledge regarding ethics that comes from reading classic literature. Bloom argues that this is part of the problem in the educational system in America. Too little is being taught in the curriculum that deals with great writers such as Immanuel Kant, Frederick Nietzsche and others whose works are concerned with questions of moral values and questions of what constitutes good and alternatively, evil (Mitchell, 1999, p 28).

Morals, according to the students of Bloom's experience, are relevant to the situation at hand. There exists no a priori notion of what is good, right and just for comparison to what is unethical, immoral, and perhaps illegal (Mitchell, 1999, p. 28). From this premise, comes Bloom's argument that teaching the seminal classics is needed. Allen Bloom was a professor and political philosopher trained in classical literature.

Christina H. Sommer (1998) supports Bloom's idea that there is a problem in the educational system that makes for the lack of morality and ethical malaise found in western society. She too suggests that what we need to do is to "bring back the great books and the great ideas, and to teach our young people to understand, respect and protect the institutions that protect us and preserve our free and democratic society (p. 1)." Sommer says that the last decades of the twentieth century, "have seen a steady erosion of knowledge and a steady increase in moral relativism (p. 1)." Partly, she claims, this has come as a result of teachers who believe it wrong to "indoctrinate" students in our own culture and moral tradition.

Sommer urges a return to the readings of seminal classics like Aristotle's *Ethics*, Shakespeare's *King Lear*, the Koran, and the political ideas of Madison, Jefferson and Lincoln, to name a few. It is through such exposure that students can understand concepts of morality, and what constitutes good, evil and ethically correct behavior. She asserts that the youth of today have seemingly digressed to the point that they often exhibit the moral philosophy of sociopaths. They cannot distinguish right from wrong, good from evil or they seem to believe it is all relative. Sommer suggests the need to pursue a philosophical approach to teaching ethics to students in America's classrooms.

There are others who propose that ethics be taught with the help of liberal arts curriculum and literature. Yoder and Denhardt (2001) cite H.T. Edmondson, III who says "The liberal arts are able...to provide life experience vicariously.

Hypothetical case studies attempt to do this, of course, but the experience they provide often reduces the involvement of the student intellect (p. 69)"

The work of two other authors cited by Yoder and Denhardt notes that the inclusion of literature would help teach ethics to students of higher learning. For example, W. Richardson and S. Adkins state:

"Properly presented, the dramatic interplay within appropriate works of fiction can intrigue and immerse students in ways that surpass almost all other approaches. In the special case of administrative ethics, there are works that allow for a fulsome exploration of such topics as honor, character, law, administrative discretion, codes, political power, and even the role that more base parts of human nature (such passions as envy, anger and hate) may inevitably play in various types of rule." (p. 69)

Frank Marini (1992) claims, for example, that public administrators can learn a lot from studying Sophocles' *Antigone*. *Antigone* is one of those Greek plays that is described as a fruitful source of opportunities to reflect upon the ethical challenges facing modern public administrators. *Antigone*, like others of the same ilk, allows one to see "ethical questions affected by passion, emotion, personality differences, loyalty, and consideration of family and friendship (Marini, p. 425)." This play, Marini argues, offers opportunities to reflect upon the role of democratic values in ethics and to reflect on conscience from a variety of vantage points (p. 425). The point being made is that literature of a philosophical nature such as Sophocles' *Antigone* is an ideal teaching tool.

To be sure, there are those who would disagree with the perspective that a philosophical approach to teaching ethics should be used as an appropriate teaching methodology. And, are today's educators sufficiently trained to teach from this sort of philosophical perspective?

2.2. Training in Philosophy Not Needed

Robert Kunzman (2006) speaks to teachers' ability to develop the capacity for ethical dialogue. He argues that teachers do not need "extensive, detailed training in philosophical ethics or religious studies (p. 129)." From his perspective, teachers merely need to develop an understanding of how ethical dialogue contributes to broader education ends.

Kunzman's ideas relate to public school teachers but his concept can be readily applied to college students. What he proposes is that the teacher serves as a facilitator of ethical discussion in the classroom. Kunzman suggests that the instructor must maintain his/her neutrality and not impose their values on students. Understandably, this may be appropriate in the public schools. However, at the collegiate level, there are those who argue that the teacher by his/her status influences the values of students. The teacher in his/her role must stimulate the student, teach skills, correct errors in reasoning and discuss how others in the field think about issues discussed (Dalton S. Lee and Susan C. Paddock, 1992).

Kunzman's perspective on the need for special training in ethics is echoed in the work of Richard Rorty (2005). Rorty writes that no special philosophical training is required. Rorty, a philosophy professor, argues that "philosophy is as relevant as lots of other academic disciplines to applied ethics, and perhaps a little more than most, but not much more. (p 378)." Rorty believes the person who would teach applied ethics needs to be creatively imaginative - one who can use that imaginative ability to bring about change in each student's environment by teaching toward whatever greater good may be possible in their respective milieu.

The research efforts of Worthley and Grumet (1983) are of import in this study. To begin, Worthley and Grumet suggest that their low response rate of 43% in their study may have been a factor of the "general state of ambivalence and confusion concerning ethics training ... [and] a reluctance on the part of many schools to indicate that they are not teaching ethics, in spite of the clear 'mandates' for doing so that are found in NASPAA and ASPA [American Society for Public Administration] guidelines." Rather than admit non-compliance to guidelines by sanctioning bodies, many potential respondents chose not to participate in this study. This author believes the small response rate in the current study was driven by similar factors.

Worthley and Grumet addressed the difficulty of teaching ethics in public administration and by the title of their article (Ethics and Public Administration: Teaching What Can't be Taught) suggest that it can't be taught. However, the authors developed a teaching methodology for ethics which is based on the view that ethics study must entail an analysis of the use of power by administrators

(p.58). The authors believe their approach to teaching ethics is more successful than other methodologies to include: case studies; codes of conduct/codes of ethics; legal control over behaviors, or analyzing works of the philosophers such as Plato, Aristotle, Mills, or Kant.

Conducted some twenty-seven years ago, the work of Worthley and Grumet found no uniformity as to what should be taught or how it can best be presented. With their limited responses, the authors found most schools offered ethics courses as a formal part of the curriculum but not as a requirement. Their research revealed a lack of clarity as to what constituted ethics and how the subject should be approached. Most schools used lecture-discussion and seminars as an appropriate format to teaching ethics.

It is from the perspective of the foregoing literature that one surmises that part of the problem with ethics training in the USA is that there exists no consensus of what is needed and what is the correct approach to teaching ethics. This reflects the thinking previously espoused by Klein (1998) of how and in what way ethics should be taught.

3. Study Design and Methodology

This study looks at the selection process of ethic instructors at graduates schools of public administration associated with the National Association of Schools of Public Affairs and Administration (NASPAA), a U.S. based accrediting body for member schools. The aim of this research is to determine the selection process and the quality of instructors selected to teach ethics in Public Administration programs.

Data was generated from schools selected through a systemic random sample of accredited programs of study listed by NASPAA in the October 2008 edition of the Public Administration Times. Systematic sampling, or interval sampling, is a procedure in which there is a gap, or interval, between each selection. The data was selected using intervals of two until the entire population was exhausted. This approach yielded a sample of 76 programs.

The characteristics of schools varied. Virtually all institutions were public and were geographically dispersed across 32 states and the District of Columbia. Participants were college and university department chairs. A pre-survey letter was sent prior to the actual survey as notice of the impending research. An e-mail was sent to non-responsive professors. Only 46 percent chose to participate in the survey.

The small response rate in this study does not lend itself to a broad generalization of NASPPA accredited schools of public administration. The author surmises, as noted in the Worthley and Grumet (1983) study, that there may still be a "general state of ambivalence and confusion concerning ethics training" Thus, the generalizability of this study is limited based on the small response size of 46 percent.

4. Findings

The questionnaire in the survey contained 24 questions regarding the state of ethics teaching in accredited schools of public administration in the U.S.

Thirty-two (91%) respondents indicated that their program includes a standalone course in ethics of which eleven (31%) institutions indicated that their course is required for all students. Most respondents (69%) indicated that ethics is not a required course but one of several options allowed students in their programs. All thirty-five respondents indicated their course was taught in their department as opposed to a school of business or political science. Furthermore, thirty-three (92%) of all respondents indicated that ethics is included in course objectives across the curriculum.

All respondents indicated that their textbooks were selected to address ethical issues concerned with public sector ethics/morality issues. Instructors teaching the course select the textbook.

The most prevalent teaching methodology identified in the response group included use of the following in preferential order: case studies; small/large group discussions; lectures; decision making scenarios; combination of case studies, lectures and classical readings, studies of codes of ethics, research papers; reading literary classics.

Fourteen (40%) respondents indicated that literary classics were used as teaching tools in ethics class among other options. Of those responding negatively to the use of literary classics, the response was that it was the instructor's prerogative to not use literary classics.

Virtually all respondents (80%) articulated that their ethics instructors were selected based on expertise. Academic training and relevant work experience were the primary criteria used in making a decision of one's ability to teach ethics. Other considerations included research interest, availability of instructors and instructor's request.

The questionnaire asked for the educational background and status of the faculty. Twenty-six (74%) indicated possession of a Ph.D., 5 (15%) had masters degrees and 3 (9%) had law degrees. Twenty (59%) instructors were full-time faculty members while 14 (40%) indicated they were adjuncts.

Twenty-three (66%) respondents indicated that their ethics instructors had formal training in the philosophy of ethics and 27 (77%) felt formal training in the philosophy of ethics was relevant to the teaching of ethics in modern society. This response is in contrast to majority responses that use of a philosophical orientation to teaching is marginally used.

5. Discussion and Conclusions

From the data gathered in this study as well as information from the literature review, most schools of public administration rely on teaching ethics from a case study approach or a number of other traditional approaches to include, small/large group discussions, lectures, some combination of the preceding approaches and minimal use of literary classics. While respondents indicate that their ethics instructors have training in the philosophy of ethics and believe formal training in the philosophy of ethics is relevant to the teaching of ethics in modern society, teaching ethics using classic literature is modestly used in most programs.

Suggestions offered by Frank Marini that the field should teach ethics using Sophocles' *Antigone* would be a rare occurrence. Instructors tended to find literature such as *Antigone* and other similar works unsuitable as teaching material.

Twenty-eight respondents in the survey believe their programs appropriately address the problems of ethics and morality issues in the public sector. The perceptions seem to be that given the uniqueness of the public sector, schools of public administration are doing well in addressing public sector ethics and morality issues.

The limited research responses suggest that the field has not come far from research efforts conducted over twenty years ago. While there is an effort to teach ethics out of a single department with dedicated faculty, this approach is much of what has been the standard over several decades. In many schools there is no ethics course requirement and often it is an elective course.

Assuming that a more philosophical approach to teaching ethics would enhance what is being taught, Ph.D.s with relevant training are teaching ethics courses; however, responses indicate that their approach to teaching ethics follow traditional rather than philosophical methodologies.

If the experiences and recommendation of authors such as Bloom, Sommer, Hetzner, Schmidt, and others are given credence, schools of public administration are doing little to inculcate students with higher order ideals of ethical and moral concepts as found in more philosophical approaches to teaching ethics. The field, as with business schools, is still adrift relative to finding consistent approaches to teaching ethics.

Ethics instructors are selected based on a variety of reasons including research interest, availability and/or experience in the area. Most instructors selected for ethics courses have the training necessary to teach in the areas in a substantive fashion but few venture far from standard approaches such as the use of case studies, lectures and small/large group discussions of ethical issues. Such approaches have been in use for decades but there is little indication these approaches are viably addressing issues of ethics and morality in the public arena.

To be sure, the response rate of this study does not lend itself to significant conclusions about the state of ethics instruction in schools of public administration.

The limited information here suggest that ethics training in schools of public administration has not yet reached a level of substantive viability which would lend itself to being a requirement as perhaps budgeting HRM or public policy analysis. The selection process of those who teach ethics and their teaching methodology reflects this fact.

Until ethics courses reach the level of being part of a required curriculum as other areas of study, it will continue to linger in a netherworld of marginality lacking in universal understanding and acceptance and relegated to the back burner by all in the field. In the interim, the public sector will continue to exhibit unusually high levels of corruption, immorality and ethical malaise without intervention by the institutions which have a responsibility in the area.

Note

¹ NASPAA is an acronym for the National Association of Schools of Public Affairs and Administration, a U.S. based accrediting body for member schools.

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What cognitive impact can spoken English have on learning to listen to English as a foreign language

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Abstract

This study investigated the consequences of simultaneously reading and listening when learning English as a foreign language. During acquisition, native Arabic-speaking students were either exposed to written English only (single modality) or written and spoken English (dual modality). The findings indicated that participants exposed to reading alone performed better on listening tests than participants exposed to the read and listen condition despite the reading alone participants having had less experience with listening than the participants exposed to reading and listening. The results suggest that at least some categories of learners will enhance their listening skills by reading only rather than by reading and listening.

Keywords: Cognitive load theory – reading – listening.

1. Introduction

Cognitive load theory has helped develop various instructional procedures and identified a number of phenomena, which interfere with learning, such as the split attention effect (see Ayres & Sweller, 2005) and the redundancy effect-to name a few. The redundancy effect has been demonstrated in a variety of studies (e.g. Sweller & Chandler 1994; Kalyuga, Chandler & Sweller 2000) and is particularly relevant to this study. Redundancy occurs when multiple sources of information are presented to the learner, containing repeated information (Sweller, 1999). For example presenting text and a diagram, which depicts the same information, causes a redundancy effect, if the learner can learn from either format alone. Similarly, the same effect can be induced by simultaneous audio and visual presentations. In a redundant scenario the learner's working memory resources can be taken up by trying to unnecessarily integrate the two sources of information.

The redundancy effect is particularly relevant to learning a language, including learning English as a foreign language, as it is commonly assumed that when it comes to teaching students spoken English, it is more effective when both spoken and written versions of the material to be taught are introduced together. For this reason, learners of a second/foreign language are often assigned audio material along with written material in order to develop their skills in areas like listening (Ur, 1984). The redundancy effect states that if learning material consists of more than one part (e.g. written and spoken) and each part is identical to the other, this material will be redundant and so reduce the learner's

cognitive capacity hence hinder learning. This outcome has been demonstrated in several studies related to learning English as a foreign language (e.g. Craig, Gholson, & Driscoll, 2002). Contrary to the evidence that suggests a dual modality approach is not beneficial; a considerable amount of research has stressed the importance of providing learners with multiple versions of instructional resources. Borrás and Lafayette (1994) for example investigated the effects of subtitling on speaking performance using multimedia courseware. The main findings of their research revealed that learners in a subtitled condition demonstrated significantly higher performance scores as opposed to those in the no subtitled condition. This study is similar to that conducted by Vanderplank (1988) in that the effects of subtitles on learning will largely depend on the learner's level of expertise. Vanderplank's (1988) research suggested that not all language learners benefited from subtitled programs. Vanderplank showed that such programs may be of limited value to low-level learners only. More recently, Moreno and Mayer (2002) examined whether the addition of on-screen text would facilitate multimedia learning. This research revealed that non-redundant presentations were superior to redundant presentations. Students better understood multimedia presentations when no on-screen text was added. Albeit the Moreno and Mayer (2002) study corresponds with this field of research, the text sections presented were somewhat minute and so may have not imposed an intrinsically high cognitive load. Diao and Sweller's (2007) research focused on whether the redundancy effect applied to reading comprehension in second/foreign language learning, Experiment 1 was designed as an extension to this line of research and attempted to test the consequences of learning to listen to English as a foreign language with and without the presentation of spoken English. The four experiments were conducted to observe the modality and redundancy effect on second/foreign language acquisition. It was hypothesized that learners of English will be disadvantaged by receiving a mixed learning mode of reading and listening due to redundancy. In contrast, learners who receive only a reading mode of instruction will benefit more as extraneous cognitive load is reduced.

2. Experiment

2.1. Method

Participants and design: The participants were 38 students ranging in age from 16 to 22, from an undergraduate English as a foreign language class at the University of Balamand, Northern Lebanon. The participant's native language was Arabic, although most of the students also spoke French and had had some learning experience with English as a foreign language during their middle and high school years. Nineteen students were randomly assigned to the Read only (R) group and the Read + Listen (RL) group.

Materials: Acquisition Phase. The experiment consisted of an acquisition phase (six activities) and a testing phase (two listening tests). For each activity in the acquisition phase both reading and auditory materials were required. All reading materials were presented on individual sheets of A4 paper and all auditory materials were presented via a tape recorder, narrated by a female voice.

In the first acquisition activity (A1), participants were required to learn thirty-eight English words (including two brief (season with and set over) expressions). These words, presented in a randomly determined but identical order for each participant, were paired with their Arabic meaning. For example, the word *salty* was presented in English with its Arabic meaning (*malih*) on the same line. These words, as was the case for all words (and sentences) used during the course of the experiment, were taken from a recipe to cook spaghetti (Stickley, 1994). The English instruction "Learn the list of words and phrases in English with their meaning in Arabic below" was positioned at the top of the sheet before the paired words were presented. The auditory materials for this activity consisted of a female voice reading the same instructions in English followed by both English and Arabic pronunciations of the 38 pairs. Each word or expression was separated by a gap of 4 seconds. The recording ran for a total of 4 minutes.

For the second activity (A2) participants were required to translate Arabic words into English. The Arabic words used in A1, but in a different, random order, were written on separate lines on a sheet with a space on each line for the English translation to be written. The English instruction "Read the Arabic words below, then write the words and phrases in English" was positioned at the top of the page before the Arabic words were presented. For the auditory materials, the written English instruction 'Read and listen to the Arabic words below then write the words and phrases in English' was presented followed by the 38 Arabic expressions. Each spoken word was separated by a gap of 7 seconds, allowing sufficient time to write the English translations. The recording ran for a total of 5 minutes.

For the third activity (A3), participants had to learn eight sentences in English that contained words specified in A1. The sentences did not include any Arabic words and were placed horizontally under each other on a sheet of paper. Each sentence was taken from the cooking recipe. The English instruction "Read and learn the list of sentences in English" was positioned at the top of the sheet before the sentences commenced. For the auditory material the English written instruction 'Learn the list of sentences in English' was presented first followed by a reading of the same 8 sentences. Each sentence was separated by a gap of 8 seconds and the recording ran for 3 minutes in total.

In the fourth activity (A4) students were required to translate Arabic sentences into English. Eight Arabic sentences were presented horizontally under each other, followed by sufficient space for the translations to be written. The Arabic sentences were the translations of the same English sentences that were presented in A3, but in a different, random order. The English instruction "Read the Arabic sentences below and then write the sentences in English" was positioned at the top of the page before the Arabic words were presented. For the auditory materials, the English instruction 'Read and listen to the Arabic sentences below then write them in English in the space provided' was spoken to the students first, followed by a reading of the eight sentences. A gap of 20 seconds separated each sentence and the whole recording ran for 5 minutes.

For the fifth activity (A5) a passage titled Cooking Marco Polo Spaghetti was presented which contained 21 blank spaces. The instructions written in English on the top of the sheet were "Fill in the blanks with a correct word or phrase to

complete the passage". The same instruction in English was given for the auditory material followed by a reading of the same passage. But there was a silent pause for 4 seconds at every blank space, to allow the participants to write their answers. The whole recording ran for 2 minutes.

For the final activity (A6) participants were required to construct English sentences from a list of words. The 38 English words specified in A1 were numbered and placed vertically under each other in four columns taking up half the page. Above this list were the instructions "Write a sentence in English for each of the words and phrases below. You may use two or more words and phrases in one sentence. Number your sentences." The remaining empty space under the given words was allocated for the participants to write their sentences. For the auditory material the same instruction in English was given followed by a reading of the 38 words and phrases. Each word and phrase was separated by a gap of 6 seconds, and the total recording was 8 minutes.

Testing Phase. The testing phase consisted of two listening tasks. The first task (T1) consisted of the 38 words used in A1 and was presented by tape-recorder. On the recording the presenter stated in English- "Write down the words and phrases you hear". Each word or phrase was then read out in English in the same order as in the first activity (A1). There was a gap of 5 seconds between each word. In addition to the audio materials, an answer sheet was constructed. At the top of the sheet, the same instructions as in the audio-recording were written, followed by numbered spaces from 1 to 38, where participants were required to write their answers. For the second listening test (T2), the same 8 sentences used in the second activity (A3) were used. A recording was made in which the presenter read out the instruction- "Write down the sentences you hear" -followed by a reading of the 8 sentences in a different order to A3. A gap of 8 seconds separated the sentences allowing additional writing time. All written and spoken materials in this phase were in English only. A corresponding answer sheet was constructed, with the same instructions as the audio recording followed by numbered spaces from 1 to 8, where participants were required to write their answers.

Procedure: The study was conducted in separate rooms for each group, and all participants were tested at the same time but were seated approximately 1 meter apart to ensure no collaboration. The Read Only group received only the written materials, whereas the Read + Listen group received both the written and auditory materials simultaneously. Both groups received the written materials faced down and were required to turn the page over when the order was given and the timing started. The Read + Listen group were asked to turn their handouts over when the taped version of the same learning material had begun playing. The recordings were played on a portable stereo in the classroom. Consequently, the Read + Listen group students listened to the tape-recording, while having simultaneous access to the written materials. For each task the paper materials were handed out and then collected by the researcher at the end of the allotted time. The time allowed for each task was determined by each individual audio-recording time; namely, A1 (4 minutes); A2 (5 minutes); A3 (3 minutes); A4 (5 minutes); A5 (2 minutes); A6 (8 minutes); T1 (4 minutes); and T2 (5 minutes). The complete experiment ran for 40 minutes. Both groups received exactly the same amount of time for each task.

Scoring : Participants were required to complete four tasks (A2, A4, A5, & A6) without access to the learning materials in the acquisition phase and two in the test phase (T1 & T2). The same scoring procedure was completed for both groups. For tasks (A2, A5 & T1) that required only single word answers or simple phrases from the list in A1, 1 mark was given for each correctly written answer, zero for an incorrect answer. For A5, 1 mark was also given if an equivalent answer was provided which was not contained in the original list. For tasks that required sentences to be written (A4, A6 & T2), 1 mark was given for each correctly written sentence. If however, a sentence was not exactly correct, but had less than 3 words incorrectly used, a half mark was given. If a sentence contained 3 or more incorrectly used words, it was then considered as incorrect and not given any marks. The maximum score possible on each task was 38 (A2); 8 (A4); 21 (A5); 38 (A6); 38 (T1) and 8 (T2).

3. Results and Discussion

Mean scores and standard deviations were calculated for each group on each of the six tasks (see Table 1 below). For the acquisition tasks a 2 (Group) x 4 (Acquisition tasks) ANOVA with repeated measures on the second factor was conducted giving a significant group effect $F(1, 36) = 12.21, p < 0.01, \eta^2 = 0.25$; but no significant interaction. It should be noted that a between-tasks main effect was not reported here, or in any of the remaining experiments, because the maximum scores for each task vary considerably and therefore are of no interest. As can be seen from Table 1, the Read only group (R) performed significantly higher than the Read + Listen group (RL) over the four tasks. However, for acquisition tasks, the same conditions were not present, as the Read + Listen group received both modes, whereas the Read only group received only written materials. Nevertheless the results suggest that the additional auditory mode hindered learning and test performance in translating and writing during acquisition.

For the two tasks in the testing phase, all students received the same conditions, an English listening task in which students had to write the English words and sentences heard. A 2 (Group) x 2 (Test tasks) ANOVA with repeated measures on the second factor was conducted giving a significant group effect $F(1, 36) = 9.37, p < 0.01, \eta^2 = 0.21$; but no significant interaction. It can be seen from Table 1 that the Read Only Group scored higher than the Read + Listen Group on both tasks, confirming the stated hypothesis. The additional auditory mode interfered with learning to write English without compensating by assisting students to listen to English.

Table 1: Means and standard deviations for acquisition and test results

| | Acquisition Phase | | | | Test Phase | |
|---------------|--------------------------|---------------|---------------|----------------|-------------------|---------------|
| | A2 | A4 | A5 | A6 | T1 | T2 |
| Read Only | 29.6 (5.33) | 3.7 (1.35) | 8.4 (5.01) | 19.3 (9.23) | 34.4 (3.55) | 6.9 (1.09) |
| Read + Listen | 23.7 (5.16) | 2.4 (1.46) | 5.4 (3.74) | 13.6 (6.18) | 30.2 (6.38) | 5.3 (1.69) |

4. Conclusion

These results corresponds with previous findings of the research on simultaneous presentations of multiple versions of learning material, suggesting that the auditory component was redundant information and so imposed an extraneous cognitive load, resulting in lower achievement, consistent with the redundancy effect (Sweller & Chandler, 1994). These findings suggest that if we want students to be good listeners of a foreign language, we should not expose them to both the audio and visual forms of the language simultaneously at certain points during learning. Clearly, learning to listen to a foreign language must require listening practice so at what point and under what circumstances does reading increase listening ability more than actual listening? The students in this study had already had some exposure to listening to English, through school and it is a reasonable assumption that they have gained further exposure through the media. Consequently having some prior knowledge of spoken English has assisted students in listening to new English words having only been exposed to them through the written medium. Perhaps it is only the dual presentation of auditory and visual information that reduces listening performance. On a general note, even though the reading tasks were somewhat limited, a single mode of learning seemed a better option from a cognitive load perspective when learning English as a foreign language.

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Providing Quality Teacher Education in Malaysia: Challenges and Prospects

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Abstract

The findings of various studies suggest that policy investments in the quality of teachers may be related to improvements in student performance (Darling-Hammond, 2000). Many initiatives are undertaken in Malaysia to produce quality teachers. However, there are some serious challenges brought about by the way teacher education is conceived and conducted. This paper will discuss the challenges and prospects in providing quality teacher education in Malaysia. The challenges include the different route, policy decisions by the authorities, cost and future of teacher education. The prospects for providing quality teacher education include the increasing demand for teachers, growing interest amongst graduates to receive teacher education, a regulatory body to ensure quality in teacher education and increased interest by private sector to provide teacher education. This paper will draw data from studies Rajendran, (2009; 2008; 2006), Rajendran (2004) and from analyses of relevant policy documents and literature.

Keywords: teacher education – quality – Malaysia - challenges - prospects

1. Introduction

Teacher education programs have been under attack for decades. They have been decried as “impractical and irrelevant” by practitioners, and cited as the root cause of bad teaching and inadequate learning (Cochran-Smith and Zeichner, 2005). Several authors claim that the effects of teacher education on the actual practices of teachers are generally meager (Feimen-Nemser, 1983).

There have been similar criticisms about teacher education in Malaysia. Teacher education in Malaysia is scrutinized from time to time. It is important such a process is carried out to ensure that teacher education remains relevant and accountable to the demands of the society and nation. It seems to be even more important now when there are new demands on teacher education to produce teachers who are required to meet the numerous challenges of globalization.

Aim of this paper is to critically review the topic of providing quality teacher education in Malaysia and the related challenges and prospects. In a constantly changing world with more emphasis being given to the rights of consumers, teacher education in Malaysia is increasingly seeing the voices of the stakeholders on various aspects including policy-making, school administration, and teacher quality. These stake-holders include the academics, parents and the media. This becomes very relevant when one reflects on the fact that for a period of more than five decades, the Malaysian Education system with its centralized-education model has on decided the policies relating to education

almost independently without giving much emphasis to the wishes of the stakeholders.

2. Teacher education in Malaysia

Teacher education in Malaysia can be periodized according to various eras, stretching from the pre-independence period to the present one which is aligned closely to national development policies and practices (Rajendran et al., 2009). Political, economic and social changes have necessitated and catalyzed changes in the education system and these have invariably shaped teacher education in Malaysia. In fact, the development of teacher education in Malaysia has been orchestrated by the demands of the educational system and policies prevalent during particular periods. The nature, structure, purpose and direction of the educational system, has been in turn dictated by the political, economic and socio-cultural considerations and constraints. (Chang 1973; Loh 1975, Awang Had 1980; Ratnavadivel 1999).

There have been attempts as early as the 1980s to identify the type of teachers to be produced in Malaysia. 1982 saw the documentation of the philosophy of teacher Education in Malaysia which aims to produce:

“The teacher, who is noble in character, progressive and scientific in outlook, committed to uphold the aspirations of the nation, and cherishes the national cultural heritage, ensures the development of the individual and the preservation of a united, democratic, progressive and disciplined society.” (Ministry of Education Malaysia, 1982, p.14).

The demands of National Philosophy of Education, the implementation of Integrated Primary School Curriculum, Integrated Secondary School Curriculum, and the Philosophy of Teacher Education meant that the demands on the teacher were increasing and they required a shift in the role, that is a move from what Hoyle (1980) termed as “restricted professional” to an “extended professional”. This in turn meant that the task of teacher training was to prepare teachers who could function effectively within the new context and demands.

Teacher education in Malaysia is under-going interesting and important changes today. The various stake-holders have high expectations of teachers and teacher education (Rajendran et al, 2009). The single factor often raised is the quality of teacher education.

Teacher education in Malaysia has its own share of issues and challenges. While responding to the expectations of the new initiatives being introduced, teachers are expected to perform myriad of tasks when they are sent to schools. Very often these demands are unreasonable because, as compared to other professionals who begin their careers, they have to be seen as beginning teachers who have yet to learn and experience many new duties in schools. Instead, very often, they are looked at as “finished-products” (Rajendran et al., 2009).

3. Quality teacher education: Defining teacher quality

Shulman's (cited in Loeb, Rouse, & Shorris, 2007, p. 7) definition of a good teacher focuses on teaching practices. Grounded in the moral dimensions of teaching, his description reminds us that a good teacher connects learners with significant ideas, with themselves, and with their world. Good teachers do more than boost achievement, they shape lives.

These expectations without doubt bring implications on teaches and teacher education. However, relatively little is known about the degree to which specific arrangements and strategies in teacher education can counterbalance prospective teachers' socialization into established practice in schools. One reason is that research into this issue requires large-scale studies and complex methodological designs, including longitudinal data collection (Radboud & Korthagen, 2005).

4. Quality teacher education: Challenges and prospects

4.1. Knowledge, skills and attitude

4.1.1. Teachers' Subject Matter Knowledge

The core of teaching lies in the acquisition and use of subject matter knowledge by teachers (Ball and McDiarmid, 1990). On the whole, prospective teachers surveyed in a study (Rajendran, et al., 2008) seem to be satisfied with the acquisition of knowledge of content and other related aspects which enable them to teach effectively in classrooms. Selected items presented below suggest that prospective teachers of the opinion that the teacher education curricula have successfully prepared them in terms of confidence to teach subject matter content effectively (4.23) on a 5-point Likert Scale, sufficient subject matter knowledge in the discipline (4.02), giving the relevant theories of teaching and learning (4.26), and opportunities to understand the National Philosophy of Education (4.16).

Selected mentor teachers who participated in this study have also rated high the preparedness of these teachers for these items. It is also important to note that there were no statistically significant differences between the perceptions of these prospective teachers and the perceptions of the mentor teachers for these items.

However, qualitative analyses in this study (Rajendran et al, 2008) and findings of studies Rajendran et al. (2006; 2004) reported elsewhere seem to suggest that teachers need in-depth subject matter knowledge in their subject areas and are different from their ratings of their level of confidence in the subject matter discipline.

4.1.2. Teachers' Pedagogical Skills

On the whole, prospective teachers surveyed in this study also rated high their acquisition of various skills needed to teach through their respective teacher education programs. Except for items, ability to maintain classroom control effectively (3.90), ability to evaluate and keep records of students' acquisition of subject matter content (3.81), ability administer co-curriculum activities effectively (3.85), and ability to prepare tests which are in line with the expectations of syllabus (3.82), prospective teachers' perceptions on the acquisition of various skills through teacher education programs were rated above 4.0 (Rajendran et al., 2008).

On the other hand, mentor teachers, except for items, ability to evaluate and keep records of students' acquisition of subject matter content (3.87), ability to teach students from multiple background and abilities (3.88), and ability to prepare tests which are in line with the expectations of syllabus (3.88), have rated the preparedness of these prospective teachers in terms of various skills needed above 4.0. However, no statistically significant differences between the perceptions of these prospective teachers and the perceptions of the mentor teachers were found for these items.

The more serious issue, however, is whether teachers are able to teach in ways where teaching and learning are effective and bring about the desired results. For example, in a study by Rajendran et al., (2006), it was found that there were certain factors which seem to underlie teachers' rationale for not being able to make the necessary changes in their teaching. The most significant reason often cited by almost all teachers was their role to prepare students for examinations. They admitted that they teach any particular component and very often in the manner they do is because only then students will be able to answer questions in examinations. Teachers also explicitly reminded this aspect during their teaching in classrooms. Teachers' highest accountability seems to be in preparing students for examinations (Rajendran et al., 2006).

4.1.3. Teachers' Attitude and Dispositions

As has been espoused in the Philosophy of Teacher Education (Ministry of Education, 1982) teachers need to be motivated and possess the right attitude towards teaching, students and colleagues. Prospective teachers in a study (Rajendran, et al., 2008) have rated high their perceptions of their changes in their attitude and certain beliefs as outcomes of their teacher education programs. Perceptions of these prospective teachers seem to be high for all items, improving leadership skills (4.16), confidence to participate in social activities (4.26), fostering cordial relationships with all (4.27), being more caring towards students (4.36), and being prepared to accept other people's views (4.37).

The mentor teachers too seem to have high perceptions about these prospective teachers in terms of some of the aspects which reflect their attitudes and beliefs related to teaching. All items were rated above 4.0. However, for the item 'enables me to be more caring towards my students', there was a statistically

significant difference between the perceptions of the prospective teachers and mentor teachers.

Increased attention is being paid now to inculcating soft skills to prospective teachers in the teacher education program (Ministry of Higher Education, 2006). The aspects which are given particular attention are communication skills, critical thinking and problem solving, team-work, life-long learning and information-management, entrepreneur skills, ethics and moral, and leadership skills. Efforts are also underway to objectively evaluate the level of changes amongst prospective teachers a result of the inculcation of these values in the teacher education program.

4.2. Accreditation and licensing

Malaysia has developed the specific standards for teacher education programs at the bachelor level. The development of these standards is aimed at strengthening the country's efforts to improve the quality of teacher education so that it is internationally recognized (Rajendran et al., 2009). The Malaysian Qualifications Agency (MQA) is responsible for promoting confidence in the public about teacher education graduate vis-a-vis quality of provision and standards of awards in higher education are safeguarded and enhance. Confidence is enhanced by conducting academic review, ensuring transparency of process and making available information on the review. Transparency of the process is assured by using nationally agreed guidelines on criteria and standards for educational program and procedures for conducting quality assurance (Rajendran, et al., 2009).

In Malaysia, however, there is no a licensing body for teacher qualifications. In order to be emplaced as teachers in public schools, successful graduates with teacher education qualifications are required to apply to the Teachers Service Commission (TSC). The TSC will vet the applications and based on the manpower requirements for teachers determined by the MOE, TSC will interview and recommend successful applicants to be emplaced as teachers in schools throughout Malaysia.

Quality assurance for teacher education at the institutional level is ensured through various means (Rajendran, et al., 2009). Firstly, there is an evaluation of the program and review of the curriculum after one cycle which is between three to four years. Secondly, feedback is obtained every semester through students' evaluation and is used for improving course content, competency of lecturers and the delivery system. In addition, the quality of programs is also assessed by external assessors and examination questions and the grading procedures are also vetted by external examiners. The institutions also conduct internal academic audits.

4.3. Routes for teacher education

Teacher education in Malaysia for pre-service teachers is conducted at two levels, both at the teacher education institutions and at the public and private

local universities (Rajendran et al., 2009). The teacher education institutions which were formerly teacher education colleges which only prepared teachers for primary and lower-secondary schools with certificates and later diplomas, have been upgraded to the level of institutions. They are now empowered to award bachelor degrees to their graduates. In 2007, for example, there were a total of 30,937 students enrolled in the various pre-service programs at the teacher education institutes (Rajendran, et al., 2009).

In the same year, a total of 3362 prospective teachers were admitted into various teacher education programs to train teachers for secondary schools at 13 public universities. It is important to note that the sole university of education in Malaysia alone took the lion's share of the total, i.e., a total of 1729 or 51.4% (Rajendran et al., 2009).

4.4. Stakeholders in teacher education

Malaysia is increasingly seeing the voice of parents and other stake-holders such as the media, politicians and religious leaders in educational policy making. This includes teacher education. They are voicing out their concerns about the ability of teachers in handling numerous issues in school management including the way they interact with parents. Probably, the most significant issue is teachers' ability in handling discipline problems amongst students in secondary schools.

There has been a steady increase in cases involving secondary school students in discipline related problems. One of the problems often sighted is the ability of women who make up more than 70 per cent of the teaching population to handle discipline-related problems when the student population is equally divided between boys and girls.

There is also mounting pressure on schools and teachers from parents to raise the achievement levels of their students. This is because the education system in Malaysia is very exam-oriented and very often various opportunities and incentives are made available to students based on examination results.

4.5. Opportunities to learn for teachers

Malaysia has established the target that 100 percent of secondary school teachers and 50 percent of primary school teachers will have degrees by the year 2010. Qualification upgrading courses are being offered to teachers. Special bachelor degree courses are designed for teachers, while master and doctoral degree courses are targeted at graduates (Mokshein et al., 2009).

The MOE also provides scholarships with full-pay leave for teachers to continue their studies at the post-graduate levels, locally or abroad, in order to improve the knowledge and skills of teachers in areas related to teaching and learning in specific subject areas. These significant commitments reflect Malaysia's serious efforts to enhance the quality of its teaching force to meet world standards.

Continuous Professional Development (CDP) and in-service training (In-Set) are essential components in maintaining teaching quality. Each year In-Set is allocated a sizeable portion of the educational recurrent budget and the amount increases each year. The proposed amount for 2008, for example, was RM 200 million. Two types of In-Set are the qualification upgrading courses, and knowledge and skills upgrading short courses, which take less than one year (Mokshein et al., 2009).

4.6. Financing teacher education

The Malaysian government has been emphasizing on developing human capital and a first class mind. As such, educational sectors have been receiving a huge amount of yearly allocation and long term development budgets (Rajendran, et al., 2009). For most students, university education is still affordable when student's financial aid is included in the equations. The MOHE has its own revolving fund and is available as a loan for those students who need to finance their university education. The federal government, states, and institutions also offer financial aids to help low and middle income students to obtain university education.

A wide variety of students' financial aids programs, including grants, and scholarships, as well as tax incentives and benefits are available. For teacher education students, they have special scholarships allotted to them, and majority of them secure those scholarships to attend teacher preparation programs. Average tuition for fulltime students attending a four year teacher education program is about RM8,700.00 per year. About 82 per cent of the cost of the teacher education program for each student at public universities is subsidized by the federal government (Rajendran, et al., 2009).

5. Summary and discussion

There are various initiatives in Malaysia to continuously upgrade the quality of teacher education, both for the pre-service and in-service courses. However, as has been discussed above, there are various issues which pose serious challenges to the continuous upgrading of the quality of teacher education in Malaysia.

Although, in general, prospective teachers and their mentor teachers have rated high their perceptions of the ability of teacher education programs in providing knowledge, skills and the right attitude to prospective teachers, other stakeholders seem to think otherwise. For example, qualitative data collected and analyzed in a study (Rajendran et al., 2008) seem to raise a number of issues in teacher education in Malaysia. These issues have been raised by critical informants and mentor teachers. Some of the issues raised by these informants include curriculum of teacher education, quality of teaching, teaching practicum, gender issue, and knowledge, skills and attitude of teachers.

In the present design, policy decisions which have been made and are practised place the teacher education institutions under the MOE and the public

universities which also offer teacher education programs under the MOHE. Although there are procedures which have been put in place to ensure the quality standards, there is very little interaction between the providers of these programs which operate under two different ministries. The irony, however, is that these teacher education providers work for a common goal of producing teachers for the same clientele, i.e., the primary and secondary schools.

To make things even more complicated, the private sector is also increasingly keen in becoming providers of teacher education. This is due to various factors including the demand to have trained-teachers in private institutions and also the opportunities offered by private teacher education. Private Institutions such as the KOPEDA, UniSel, UniTar and Segi University College have also started teacher education programs. These institutions are required to adhere to the generic quality standards with very little emphasis being paid to the idiosyncracies and special features expected of and offered by teacher education models. Without a licensing body in Malaysia for teachers, the variance between these programs will continue to be huge and this will emerge as a serious threat to ensuring the quality of teachers.

The gender issue in teaching is also becoming a serious problem in Malaysia. For example, in the year 2008, at the Sultan Idris Education University, 70 per cent of the student population were women (Sultan Idris Education University, 2009). In fact the percentage of women in the teaching profession is increasing by the year. Although this is a world phenomena, the lack of interest shown by men to become teachers brings new issues into the teaching profession and raises questions amongst parents.

As has been explained earlier, about 82 per cent of the cost involved in providing teacher education to prospective teachers in public institutions is being paid by the government. The public institutions are being encouraged by the MOE and MOHE to find alternative sources of funding for their programs. As such, teacher education cannot continue to enjoy the luxury of having prospective teachers who, among others, are attracted to the various incentives including heavily subsidised programs made available to them. As in the case of the private sector, prospective teachers in the public institutions may also need to completely finance their teacher education in the near future.

As has been espoused in the philosophy of teacher education, teachers in Malaysia are expected to be committed to uphold the aspirations of the nation, and cherish the national cultural heritage. This requires teachers to be highly motivated and committed to their profession. While a lot of attention is being paid to the development of subject matter knowledge and pedagogical skills of teachers, relatively little is being done to address the moral and ethical dimensions of teachers. The public seem to perceive that today's teachers are less committed to their profession as compared to those of the yester-years. This issue needs to be investigated in detail and measures need to be taken to enhance the moral and ethical dimensions of teachers.

6. Conclusion

Providing quality teacher education is both problematic and challenging. In Malaysia, the various strategies which have been employed to provide teacher education have shown results and are in line with the world trends. With increasing demands from various stake-holders to hold the providers of teacher education to be more productive and accountable, continuous attempts to increase the quality of teacher education become urgent and compulsory.

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Challenges in Higher Education: Creating New Learning Pathways in a Digital Age

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Abstract

Advancements in technology reorganized how students live, communicate and learn, and subsequently poses challenges to Higher Education. Learning transformed into a continual process whereby knowledge is created via connections and the ability to manage networks (Siemens, 2005; Downes, 2007), implying that learning results from social interaction and knowledge transmission within social networks. Learning is envisaged as *connectivity*: people acquire competencies through connections with information sources, focusing on connecting specialized information sets. *Connectivism* implies that decisions are based on rapidly altering foundations as new information develops continually. Learning principles and processes should reflect underlying social environments (Siemens, 2004), implying alternate approaches to instructional design. This paper investigates cases within a higher education setting, using narrative data and interviews to ascertain the value of a team approach to instructional design. The researcher adopts an interpretive stance to explore whether a collaborative approach to instructional design could transform learning into a process that aligns with the latest educational trends.

Keywords: Appreciative Inquiry – Higher Education – E-learning

1. Introduction

Technology and the emerging disciplines of nanotechnology and micro-sciences continuously challenge the ways we learn and communicate. Learning has changed into an ubiquitous activity, as technological innovation provides opportunities for seamless interaction within omnipresent networks (Khoza, 2009:12). Globally, HE institutions experience rapid change in response to technological innovation, facing numerous challenges that inherently fall outside the traditional view of education. Academics, charged with equipping graduates to compete in the 21st century's knowledge economy, are exposed to immense possibilities; however, technology remains a disruptive innovation at any institution (The Economist Intelligence Unit, 2008).

Technological innovation, long a hallmark of academic research, may now be changing the way that lecturers teach and students learn. Distance education, sophisticated learning-management systems and the opportunity to collaborate with research partners from around the world are just some of the transformational benefits that universities are embracing. However, significant challenges also loom, as academics face Paulo Freire's concept of critical education. The conditions for change can be created by educating students to the forces and dynamics that are influencing their lives.

2. Problem Statement

Societal and technological changes are forcing HE institutions to clarify their values, develop new strategies and adapt novel operating procedures (Botha, 2009:29). HE leaders are therefore challenged to mobilise people across the institution in order to adapt and transform to meet the needs of students and stakeholders, emphasizing a need to gain interest from all levels of staff to align commitments with the vision and goals of the institution (Asikas, 2009:26). In contrast, the majority of HE institutions rely on a single visionary leader and do not embrace the genius of shared leadership (Khoza, 2009:30), often resulting in staff not buying into novel ways of teaching and learning.

Among various other educational developments, e-learning emerged as the paradigm of modern education (Sun, Tsai, Finger, Chen, & Yeh, 2008:1183). An e-learning division therefore have the vested power and authority to introduce and drive technological innovation within an educational institution. This article intends to identify aspects that impact on the feasibility of a shared leadership approach within an e-learning division during times of rapid transformation and continuous technological innovation, challenging HE teaching practice.

Shared, transformational leadership tends to be proactive in nature, raising awareness of collective interests, helping followers to achieve their personal goals (Antonakis, Avolio, & Sivasubramaniam, 2003). Leaders should therefore think and act proactively in order to use future changes concerning technological innovation to enhance the teaching situation (Lee, 2009:32), establishing an educational vision for a networked and integrated digital future. The latter implies that leaders establish a nexus between education for a digital future and teaching productivity, establishing a positive outlook on the application of emerging technologies to enhance teaching and learning in a higher education context.

3. Theoretical framework and rationale for the choice of methods

Challenges evolving around technological innovation are often addressed by focusing on the things that aren't working, and think about how you can fix them. An alternative approach is to focus on the positive aspects relating to technological innovation in an educational context. This is the premise behind Appreciative Inquiry, a form of action research, focusing on an organisation's effective core functions that give "life" to the organisation (Cooperrider & Whitney, 2003:173). The field of leadership acknowledges that the visible display of strengths signals optimal functioning. Similarly, the principles and practices of AI suggest that collective strengths do more than perform – it transforms (Cooperrider & Whitney, 2005:2). Using Appreciative Inquiry (AI) as methodology to facilitate change in an e-learning division was therefore an applicable choice, as AI in this context will focus on best leadership practices in e-learning, as well as grant the opportunity to transform the current leadership model in the division.

AI is a contemporary action-research approach, underpinned by the socio-rationalist paradigm and therefore based on the assumption of impermanence (Lewis-Enright, Crafford, & Crous, 2009:6). Socio-rationalism points to the instability of social order – claiming that any pattern of social action is open to infinite revision (Cooperrider, Whitney, Stavros, & Fry, 2008:358). Both teaching and learning are deemed social actions as both actions can be facilitated via social interaction, accepting the view of social constructionism, emphasising that reality is the product of shared meaning via interaction.

AI can be viewed as a 'credo for reflective practice', implying that by focusing on best e-learning practices, professionals assume responsibility for improving practice by reflecting on other institutions' positive innovative educational practices and in return enrich their own professional environment.

4. Research process

The process of AI comprises several interrelated steps and is therefore a highly systematic and practical form of inquiry that identifies and leverages organisational strengths (Van Vuuren & Crous, 2005:405). There is, however, not one best model of conducting an appreciative inquiry. The basic AI process is referred to as the 4-D model (cycle), where the four phases are represented as *discover*, *dream*, *design* and *destiny* (Crous, 2008:95; Cooperrider, Whitney, & Stavros, 2003:5). An alternative to the 4-D model for AI includes a fifth step, consequently known as a cycle of 5Ds, namely *Definition*, *Discovery*, *Dream*, *Design* and *Destiny* (Cooperider & Whitney, 2001; Der Haar & Hosking, 2004). The first step of the process is to identify and describe the problem one is trying to solve. Underpinned by the defined problem, the researcher applies the subsequent four phases, *Discovery*, *Dream*, *Design* and *Deliver* to investigate the dilemma. The figure below illustrates the 5-D process of AI.

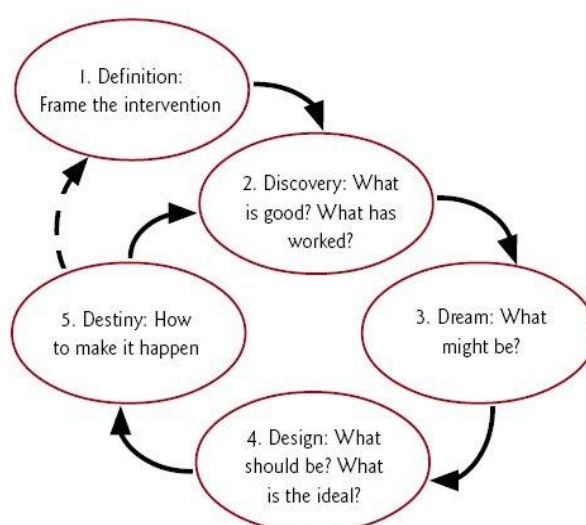


Figure 1. The appreciative inquiry '5-D' model (see Cooperrider et al., 2003; Watkins and Mohr, 2001; Whitney and Trosten-Bloom, 2003 and the AI Commons website)

The abovementioned 5-phase model was applied as a “transformation tool” within an e-learning division that serves the lecturers of a Higher Education institution. The five steps will therefore be used as a framework that guides the remaining sections of the article.

This investigation was conducted in the Division e-learning of the University of the Free State. The five steps of the AI process were applied as a transformational tool, generating momentum for change and sustainability within the Division by means of detailed action planning and monitoring the change process. The *Define* phase provided an opportunity to elaborate on the problem and discuss affirm the topic. During the *Discovery* phase, several positive aspects and effective structures of other e-learning divisions were defined, paving the way for the *Dream* phase, where the researcher makes recommendations for possible changes within the Division. The most significant phase was *Design*, where a proposed organisational restructuring was suggested, enabling the members of the Division e-learning division to provide improved e-learning support service to lecturers. Lastly, the researcher used the *Destiny* phase to make several recommendations concerning leadership and operational management within the Division.

A simple random sampling technique was used to select participants for the investigation. The researcher attended an AI workshop as part of the Leadership Learning Community of the University of the Free State. During the workshop the researcher formulated several provocative questions that enabled her to obtain information that explained the core functions and/or life-giving characteristics of other e-learning divisions. These questions were used to develop an open-ended survey with four questions that were made available to the members of IT Forum, an international online learning community for e-learning practitioners. The researcher used Survey Monkey, an online survey tool to obtain data anonymously from participants. The members of the forum could provide answers to the four questions in narrative format, which were upon in return encoded and analysed resulting in several dominant themes emerging from the qualitative data. Completion of the survey was optional – 17 members of the IT Forum chose to provide narratives. The identity of any individual or institution that emerges from the data will remain confidential. The data collection process and the application and implications thereof will consequently be described.

4.1 Phase 1: Definition

The initial step in this AI process was to define the area of concern that will be explored (affirmative topic choice). The topic guided the inquirer to propose possible changes in that may lead to the Division achieving the ultimate reality. The definition phase of the AI process in the context of this investigation therefore provides a background to current trends, guiding e-learning practice at HE institutions.

People involved in the creation of instructional or developmental environments traditionally recognised and applied, amongst others, constructivist, behaviourist

or cognitivist pedagogies. These learning theories, although underpinned by different paradigms of thinking, implies the concept of transactional distance (Downes, 2006). For learning to take place, a physical or metaphorical space, representing a channel of communication, should exist. Consequently, none of the mentioned learning theories is sufficient to represent the nature of learning linked to knowledge diffusion in the online world (Cormier, 2008). Moore contributed to the development of learning theories by arguing that knowledge exists and diffuses through negotiation and communication (Giossos, Koutsouba, Lionarakis, & Skavantos, 2009). As learning takes place via communication, improved interaction would in effect exert a positive influence on learning processes.

The advancement of technology has reorganised how people interact and communicate, therefore influencing how they learn. Learning has changed to a continual process of knowledge transformation into something of meaning through connections with sources of information and the formation of useful patterns, which generally result in something that can be acted upon appropriately and in a contextually aware manner (Siemens, 2004). Learning therefore comprises various meanings for different people. Learning can therefore be envisaged as *connectivity*, because people derive skills and competencies from forming connections with outside sources while focusing on connecting specialised information sets.

Connectivism is driven by the understanding that decisions are based on rapidly altering foundations as new information is continually being acquired. Learning needs and theories that describe learning principles and processes should be reflective of underlying social environments (Siemens, 2004). In contrast with traditional learning theories, connectivism does not necessarily imply a transactional medium of communication where signals are transferred between the sender and the receiver. This raises an alternative question (Downes, 2006): If there is no causal connection between a teacher and a learner, is it possible that learning can take place? Connectivism, however, does not necessarily imply that all other learning theories are obsolete. It only provides alternative means for learning as it does not reduce the transfer of information between senders and receivers to a physical substrate (Downes, 2006). The fundamental insight aligns with the assumptions underpinning connectivism, implying any form of learning, including personal development and professional growth, relates to people's ability to construct their own social networks that integrate with their personal learning environments within which they foster and sustain the flow of knowledge (Siemens, 2004).

Pedagogy is currently challenged by the ephemeral nature of knowledge in the online world. Siemens (2009) very appropriately stated that *no individual is able to master a single discipline*. In the context of instructional design, lecturers should be empowered to create learning opportunities that provide students with *growth* or *developmental* opportunities in which they build connections and consequently obtain or share information. Lecturers can therefore no longer control students' learning processes and are often confronted with "chaos theory", as the process of learning is rather unpredictable, although occurring within a certain structure. Lorenz (1993) defined chaos as follows: "*The property that characterizes a dynamical system in which most orbits exhibit sensitive*

dependence.” How does *chaos* relate to learning or instructional design? Learning takes place within surrounding dynamic systems all around us. The learning process may therefore constitute recurrent behaviour, but are very difficult to pin down and predict apart from the very short term. Lecturers might plan for students to acquire a specific set of knowledge and skills attached to a learning module; they can however not ensure that all of the outcomes are achieved in similar ways, because learning takes place in a very complex system of connections.

Complexity theory builds on chaos as it implies that learning and change take place within the *complexity zone* (Lewis, 1994). Simply stated, complexity arises in situations where “an increasing number of independent variables begin interacting in interdependent and unpredictable ways” (Sanders, 2003). The value and depth of information obtained and created whilst learning is dependent on the strength and dimensions of connections that students form due to engaging in a course. Knowledge obtained is not only provided by the lecturer, but rather accessed via complex connections with relevant sources. Learning is therefore no longer a linear and predictable process. Students are required to develop skills that enable them to cope in a world confronted with constant challenges and change.

Education sciences usually examine the world (or subject disciplines) by breaking it into smaller and smaller pieces until the pieces can be understood. Too often this results in lecturers and students missing the bigger picture. Instructional designers and educational leaders should ensure a transformation in lecturers’ thinking, and not necessarily their doing. Lecturers should focus on what students should ultimately master, as well as on possible online tools that might enable a student to reach the predetermined outcomes. The discovery phase, as explained below, highlights several possibilities for transforming instructional design, and in effect aims to provide a transformed vision for teaching and learning.

4.2 Phase 2: Discovery

The goal of the discovery phase is to discover and appreciate best practices in an organisation – anything that gives a source of life and energy to people, their job and community as whole (Cooperrider, Whitney, Stavros & Fry, 2008:104). The researcher accordingly had to obtain data concerning best practices in e-learning aligning with the underpinning organisational structure of the institutions involved. The inquirer involved as many people as sensibly possible, and designed questions to get people talking and telling stories about what they found most valuable (or appreciated), as well what worked particularly well in the HE e-learning context. Table 1 below illustrates the questions that were posed to participants.

Table 1: Questions used in the Appreciative Inquiry process

| | |
|----|--|
| 1. | Describe an extraordinary contribution that an instructional designer(s) made to teaching and learning in your field. |
| 2. | Describe some of the positive actions that e-learning staff members have taken to keep you involved in the design process. |

| | |
|-----|---|
| 3. | What do you value most: |
| 3.1 | of the e-learning division on your campus? |
| 3.2 | of your personal interaction with the e-learning division? |
| 3.3 | of any form of interaction with the e-learning division that motivates you to become involved in online learning? |
| 4. | What is the one thing that gives life to your sustained involvement with e-learning? |

The researcher encoded and analysed the data obtained from the narratives. Dominant themes were identified on a basis of theoretical saturation, implying that the dataset is not yielding any additional themes. The following dominant themes emerged from the qualitative data:

- Availability and responsiveness

It seems as if participants value the responsiveness and availability of e-learning staff members. E-learning practitioners should therefore not merely be the people behind the e-mail or the Learning Management System. Participants indicated amongst other aspects that they valued the e-learning staff's *"responsiveness when they have enquiries"*. Another participant mentioned that he valued the staff being *"open for interaction"* and *"available to help"*. Another important aspect relating to responsiveness and availability was emphasised by a participant who indicated that she valued the *"staff's willingness to help and teach"*.

- Information about latest technological trends

E-learning practitioners value knowledge and skills relating to technological innovation. Participants indicated that they treasured *"helpful people who have the latest gadgets and know how to use them"*. Another participant pointed out that she engaged with e-learning staff members to obtain *"assessment ideas – I found that students liked variety in online assessments and therefore we cashed in on that"*. One participant acknowledged that he *"liked the blog updates sharing trends and information about cool gadgets that enhance online facilitation of learning"*.

- Collaboration

Lecturing staff seems to value interaction and collaboration with e-learning staff, specifically instructional designers. Staff members indicated that they wanted to *"interact at every level"* and that they valued the Division's *"openness for collaboration and interaction"*. A participant also pointedly stated that *"they have weekly meetings that helps to keep stakeholders informed"*, confirming the impact of collaboration among lecturing staff and instructional designers and technical staff within an e-learning environment.

- Leadership

Cultivating leaders in the field of e-learning was a significant finding, as various participants mentioned that they regarded leadership in e-learning as a very significant aspect that might contribute to the impact thereof on teaching and learning. Participants mentioned that they appreciated the *"Director's passion for developing excellent online instructors"*, emphasising the importance of professional development and empowerment relating to instructional design and

in effect the development of online learning activities. In addition, a participant mentioned that she "*respected efforts in finding new approaches and strategies that can influence learning and that can contribute to research*". The latter finding relates closely to leadership in the field of e-learning and implies that practitioners should find the best ways that work in practice to create the best possible opportunities for learning and assessment.

The abovementioned themes can be regarded as those aspects that summarise best practices in e-learning divisions and can therefore be regarded as possible aspects that might improve the facilitation of effective online learning courses in a Higher Education context. The question as to how these "ideal" circumstances can be created will consequently be addressed in the Dream phase.

4.3 Phase 3: Dream

The Dream phase enabled the researcher to sketch an ideal for the facilitation of online learning. This section of the research process necessitated the facilitation of a collective discussion (Cooperrider, Whitney, Stavros & Fry, 2008:132) among the staff members of the Division E-learning (UFS) to identify the relevant best practices that could be applied to improve e-learning practice at the specific institution. The selected ideas and/or practices were consequently used to transform the organisational structure of the Division to enhance service delivery in the faculties and to work closely with academic staff to streamline the process of instructional design of online learning modules. The Design phase below illustrates the restructuring of the Division E-learning.

4.4 Phase 4: Design

An organisation represents an indeterminate system, capable of becoming more than it is at any given moment and learning how to actively take part in guiding its own transformation (Cooperrider, Whitney & Stavros, 2003:4). During the design phase of the AI process, the researcher applied the provocative knowledge of “what is”, to create a changed organisational structure. This step is carried out to create or design organisational structures, processes and relations which support the dreams articulated in previous steps. Based on “what works best” in other institutions, the Division E-learning designed a transformed organisational structure (cf. Diagram 2) with the purpose of providing an improved service to academic staff within faculties.

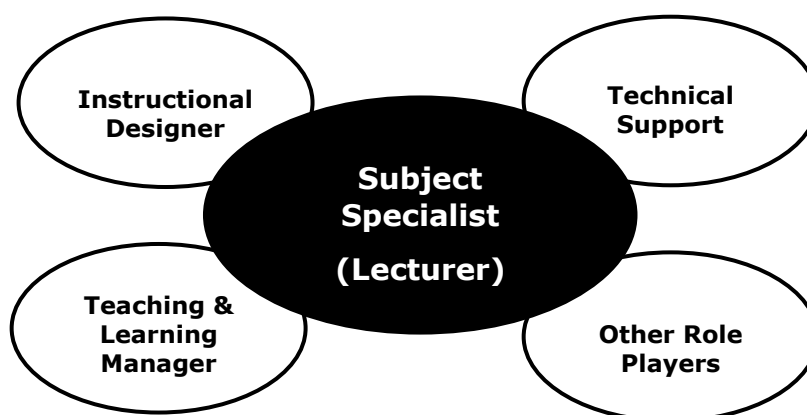


Diagram 2: Changed support structure – Division E-learning

According to the Division’s changed organisational structure, instructional design is no longer viewed as a mechanistic process where online modules are designed by instructional designers, following strict rules in a bureaucratic system, without engaging with academic staff. The latter process represents a rather rigid approach to teaching and learning, guided by a traditional, hierarchical leadership style, not meeting the needs of a diverse group of learners in a digital age. The transformed structure represents an organic approach (Daft, 2008:153; Gitman & McDaniel, 2007:253) to instructional design, where design teams consist of multitalented individuals who perform a variety of tasks, depending on the outcomes set in the module and the learning needs of students. Instructional designers are required to consult with lecturers and determine which online tools could be applied to create the best possible means for students to connect with peers and to form connections with applicable knowledge sources. The process of instructional design therefore involves the lecturers, who remain the facilitators of teaching and learning, supported by an organic instructional design team. This approach to teaching and learning enables lecturers to focus on predetermined outcomes evolving around a specific set of knowledge and skills that could be obtained in numerous ways.

4.5 Phase 5: Destiny

The use of appreciative inquiry to reflect on best practices in a Higher Education e-learning context in this research has allowed the emergence of a transformed

divisional structure, enabling e-learning staff to perform multiple roles in a cross-hierarchical structure. The Division created a less hierarchical system, enabling instructional designers, lecturers and technical staff to follow a team approach towards teaching and learning, and as a result create diverse learning opportunities using a variety of technological tools.

The best way to understand the effectiveness of transformation within an organisation is to experience the effect thereof on the Division's performance. The effectiveness of the changed divisional functionality and structure will only be determined after a period of time has passed, leaving scope to evaluate the efficiency of the changed.

5. Concluding comments

This investigation emphasized that although it seems as if institutional practices appear incongruent with global concerns of education as HE is challenged by a vast array of technological innovation and change, it is possible to develop pioneering educational contexts where students' learning is holistic and transformative and enables them to address the challenges of a rapidly changing environment.

The findings of this investigation illustrate that influences from a changing online environment extend teaching and learning to interdependent and interconnected aspects of a learning community. The process of conducting an appreciative inquiry has, however, resulted in the emergence of pioneering procedures and structures, underpinned by the imaginative capturing, and speculation, of e-learning practitioners' experiences that result from the rich and grounded stories, providing a platform for transformed and improved e-learning practice.

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Learning Archeology in the Alandroal¹: The Institutional Dimension

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Abstract

According to the information provided by the Portuguese Statistics National Institute, the illiteracy level reaches 9% in Portugal (17,1% in the Alentejo). The project *Learning Archaeology in the Alandroal*² assumes, as its main purpose, the elaboration of the complete cartography of the learnings achieved by a resident population in a certain territory (Alandroal/Alentejo/Portugal) and during a certain period of time (1997-2007), crossing its obtained results, with the evolution of the proposals of the training system, in that same territory and in that same period. Such purpose can be a precious contribution to the understanding of the existent relationships between the learning paths taken by the individuals and the different learning patterns available in a certain place. Indeed, as Rothes (2002) refers, the educational system cannot be reduced to the school system and education-training is not limited to a certain period in one's life, but rather co-extensive of that same life. Cavaco (2002) mentions that, the fact that adults rarely participate in formal education activities seems to show the importance that learnings achieved through everyday life activities (in social, professional and convivial environments) have in the group of learnings that are part of the personal portfolio. The methodology to render visible will be supported by a procedural and instrumental platform where both quantitative and qualitative approaches will take place.

Keywords: Learning Style - Educational Cartography - Community Education

1. Introduction

In November 2007, one of the bigger research projects in Education began, currently in progress, in Alentejo (Portugal), involving the University of Évora,

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² idem

the Alentejo Regional Education Direction, the Communitarian Development Association SUA0, the regional newspaper *Diário do SUL*, Alandroal's City Council, being financed by the Foundation for Science and Technology of Portugal (FCT). The research project, named Learning "archaeology" in the Alandroal", took as a main objective, to carry out the survey and characterization of the universe of opportunities of learning available and characterized in a given territory (Alandroal), during a decade (1997-2007). This paper presents the already available results, that allow a first perception of the educative institutional potential of the territory in study.

2. The Territory and the Learning: The Context of Portugal

There is nowadays in Portugal the perception that, in any territorial context, to the group of institutions with direct responsibility in the availability of learning offers in formal context (learning organized with pedagogic criteria, using appropriate teaching devices and giving academic and/or professional certification), should be added another set of much more complex and rich institutions and local contexts. These are the institutions which can generate non formal learning (which do not grant certification, but possess a reasonable degree of organization and socialization) and informal learning (that occur in everyday environments proper to the network of social and family relationships in each community reality in the areas of residence, work and social interaction). The second set of institutions plays a bigger role in the training of individuals in the rural Portuguese territories due to the lack of formal learning spaces, to a strong associative spirit and of civic and social participation still present in the heart of small Portuguese communities and realized in the existence of a universe of institutions from civil society. The territory is in this context, a structural element of all social dynamics that in it are generated and developed. It's in this context that Ferragolo da Veiga (2005:233) states that there are "two issues considered key to understanding change in rural areas:

(1) a space conception that considers the nature of its territory, according to their accumulated history and the constellation of social, local and global relations; and

(2) a player with reflective capacity and action, that does not remove importance to the structural dimension, but with which it is closely associated".

In Portugal, with the implementation of the processes of RVCC (Recognition, Validation and Certification of Skills), from the 2000 year, it was possible to begin to have a perception clearer of the relative importance of the institutions and local contexts in the set of achieved learning by adults along their course of life. In reality, it is through this approach that reflexive portfolios are built in which they identify significant learning for the construction / development of skills that, later, will be recognized and certified, based on a matrix, in which the life stories began to take a determinant role. It has become possible to have a closer notion of what is the true importance of the educating action of the local institutions of many different kinds: enterprises, associations of development, sports, of solidarity, cultural, recreational, youthful and of religious extent. Even more so, Arroiteia et al say(2000:157), "the designation of

the educational map contemplates the existence of other educational spaces apart from the school, which should not be ignored at present."

The training of individuals is, in this context, a dynamic process, that will reflect structurally the learning opportunities, that exist locally. Therefore, detailed knowledge of the local institutions and promoters contexts of learning opportunities is essential to the complete map of the educational reality of a territory (Imaginário, 2007:27), beyond giving us a perspective on the degree of community mobilization for the associative practice (Lima & Erasmie, 1982:132). Naturally, this conceptual exercise assumes that the geographic, demographic, social, economic and social dimensions influence the geometry of the learning map of each area and each individual. A map where all the nodes of the network, should be considered, because they are all, coordinates which the individual's pass through in their vital trajectories (Nico, 2008:14). Especially because, at present, "the hegemony of a school and the educational monopoly of the school are being questioned, not only in the field of principles (development of continuing education) but also in the field of practice" (Canário, 1996:7).

The family and social network are other key elements of this map in the learning of each individual and their contribution to the qualification is now more visible in the content of reflective portfolios, which have been built by hundreds of thousands of Portuguese.

One learns everywhere, at any moment, in any circumstance, with anyone, always with some objective. If we think that any "educative act is immersed in a determined context, that is the synthesis of factors like the time, the space, the history, the experiences, the projects and the natural circumstances in which the agents of educational practice are developed" (Gómez, Freitas and Callejas, 2007:177). Therefore, the study and the consideration of the educative potential of the territories is, in the present, one of the basic preoccupations in the drawing and realization of local politics promoters of a model of human, cultural, economical and social development. It is the result of an array of sustainability and of narrowing of the cooperative work, based in partnerships synergistic and generators of the endogenous resources. In the territory our study is about (County of Alandroal – located in the Alentejo region, to the South of Portugal), there is a universe of learning opportunities, as in any other geographical, social and cultural context.

The concept of educating city is based on these objectives. Small population units are, therefore, places with the mission of "restoring the legitimacy of public action" (Ferreira, 2005:102).

The Territory of Alandroal

It was based on the assumptions outlined above, in 2007, that a research team from the CIEP, (Center for Research in Education and Psychology at the University of Évora) initiated the study of a given area: the County of Alandroal. This territory has an area of 544.86 km² and an adult population (aged 18 years or more) of 5582 individuals. It consists of six parishes: N^a Senhora da Conceição (1570 individuals), Santiago Maior (2172), Terena (757)

São Brás dos Matos (353), Capelins (585) and Terena (145). Located geographically within the least populated region of the country (southeast Portugal), the Alandroal has low social and economic levels (52.19% of the average GDP per capita of Portugal) and weak education indicators that show, for example, an illiteracy rate of 21% (INE, 2002). Accordingly, in the county of Alandroal, the qualification of adult individuals, will without a doubt refer us for journeys built away from the spaces of school and formal learning. It were the non-formal and informal learning contexts, available in the relational and institutional fabric of small communities of the territory, that have assumed themselves, probably, like the spaces more available and, therefore, more present in the construction and structuring of educational projects of individuals.

3. Strategic and Methodological Procedures

In the circumstances described, we believe that the trend in the research, started in 2007, would have to go, necessarily, through the census of all institutions operating in the territory of the county of Alandroal, regardless of their area of activity. To this end, we assumed any legally existing and fiscally active entity as an institution. As an institutional learning, it was considered every learning opportunity identified (in any context) that revealed a minimum of intentionality and structure and that had resulted from the action of the institutions surveyed in the study period (1997-2007). To ensure appropriate conditions for the realization of the research protocols were established with local authorities (Municipal Council and Parish Councils), the Regional Directorate of Education of the Alentejo, the Alentejo Regional Branch of the Institute of Employment and Vocational Training and the Group of Schools of Alandroal. Since the beginning of the project concretion, the Alandroal City Council has made available, to the research project, an office, in its physical facilities, and a full time employee with appropriate academic training to the project objectives.

Between January 2008 and today, a team of researchers has been on the ground to achieve the methodological procedure of research, according to the following phases:

- 1st Phase (January/2008-June/2009): Implementation of the Learning Institutional Questionnaires I and II (QAI I and QAI II) to 286 institutions who agreed to participate, among 328 institutions identified in the area. This first phase was designed to identify and characterize the field of existing institutions in the area and learning which they organized and made available;
- 2nd Phase (ongoing): Application of the Questionnaire of Personal Learning (QAP) to a semi-stratified sample of 1084 people registered in the parishes of the area under study. This second phase is to identify and characterize the field of learning experience achieved by the adult population in the territory (Alandroals County) during a decade (1997-2007).

4. The Available results: institutional dimension

From the application and posterior analysis of the gathered information by QAI I and II, in all of Alandroal, it is possible, to the date of this communication, to present the following data, already made available, related to those who have been enquired:

i) There were 328 identified institutions, 286 of which returned responses, corresponding to a 86.2% coverage rate, according with the distribution indicated in Table 1:

Table 1 – Number of institutions in Alandroal's county (by parish)

| Parish | Institutions Identified | Institutions Participating | |
|--------------------------------|-------------------------|----------------------------|--------------------------|
| | | Absolute Frequencies (n) | Relative Frequencies (%) |
| N. Senhora da Conceição | 119 | 101 | 84,5 |
| Santiago Maior | 101 | 89 | 85,1 |
| Terena | 45 | 40 | 88,9 |
| São Brás dos Matos | 32 | 28 | 87,5 |
| Capelins | 18 | 16 | 88,9 |
| Juromenha | 13 | 12 | 92,3 |
| Total | 328 | 286 | 88,1 |

ii) With regard to the statutory nature, legal and functional nature, it was found that private entities predominate (75.5%), according to the indicated in chart 1 and 2.

Chart 1: Statutory Nature(%)

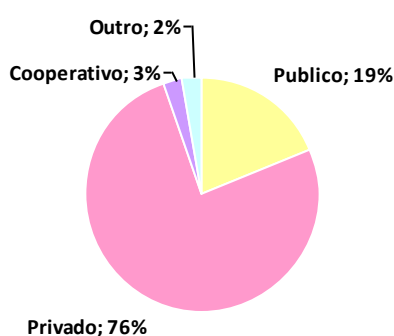
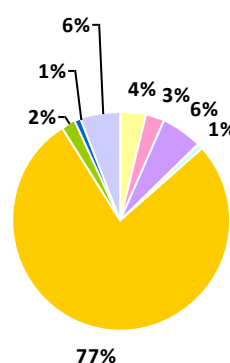
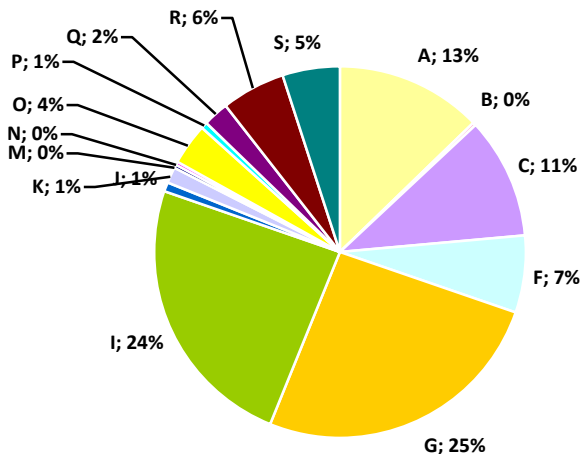


Chart 2: Legal and Functional Nature (%)

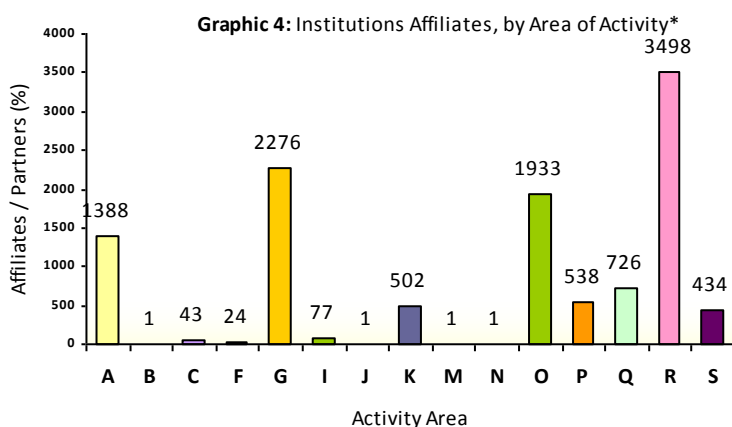


iii) According to the economic activity groups (and given the Portuguese Classification of Economic Activities³), the most represented, in the study territory, are wholesale trade and retail (25.5%), housing, restaurants and alike (24%) and agriculture, animal production, hunting, forest and fishing (12.6%) as shown in chart 3.

Chart 3: Institutions, by area of economic activity* (%)



iv) When carrying out the reading on the number of individuals associated with each area of activity, it appears that there were differences in relation to previous findings. It appears that the number of recreational, cultural and sporting activities have a significant presence in the county, because they involve, according to data from the QAI II, 3498 people, which shows a strong civic and social dynamics of the population;



³ A. Agriculture, livestock, hunting, forestry and fishing; B. Mining and quarrying; C. Manufacturing F. Construction, G. Wholesale and retail trade, repair of motor vehicles and motorcycles; I. Lodging, restaurant and alike J. Information and Communication Activities, K. Financial and insurance Activities; M. Professional, scientific and technical activities; N. Administrative and support services; O. Public administration and defence, compulsory social security; P. Education; Q. Human health activities and social support; R. Art Activities, entertainment, sport and recreation; S. Other activities and services; s / resp. No response.

v) 33.2% of institutions surveyed have revealed to possess the Annual Plan of Activities. In this group are mostly companies, associations, private institutions of social solidarity and of a public office;

vi) most institutions run all year (93% of cases). Only 12 are active seasonally (4.2% of cases);

vii) The hours of operation, as well as public access to the institution is complete: it works on weekdays in the morning and / or afternoon and is open to the public;

viii) The personnel that integrate the institutions is mostly paid. However, there is the existence of 9% of individuals who undertake their work on a voluntary basis;

ix) Most institutions have proper accounting (81.5%), often using the services of an individual officer (45.5%), or an accounting firm. In some cases, this task is performed by the institution (12.6%);

x) 26% of organizations hold meetings of the executive body (Management) and 17.1% promote deliberative meetings (General Assembly), with some regularity;

xi) 30% of the institutions cooperate with other institutions. This cooperation is established, formal and on record in 81.4% of cases;

xii) 689 opportunities for learning were reported in the group of reporting institutions (286), according to the distribution that is presented next:

Table 2 – Number of learnings in Alandroal's county (by parish)

| Parish | Nº of institutions equired | Nº of learning opportunities identified | Index of institutional learning |
|-------------------------|----------------------------|---|---------------------------------|
| N. Senhora da Conceição | 101 | 257 | 2,5 |
| Santiago Maior | 89 | 255 | 3,0 |
| Terena | 40 | 73 | 1,8 |
| São Brás dos Matos | 28 | 28 | 1,0 |
| Capelins | 16 | 29 | 1,8 |
| Juromenha | 12 | 47 | 3,9 |
| Total | 286 | 689 | 2,4 |

xiii) The parish Juromenha, although it is one that fewer people and institutions reveals, proved to be the local context with higher institutional learning (3.9),

considering the number of learning identified in relation to the number of institutions surveyed and individuals resident. The parish of São Brás dos Matos turned out to be the local context with the lowest level of institutional learning (1.0), according to the same criteria mentioned above;

xiv) Regarding the content of learning contents provided by the institutions, the following table with their distribution is presented:

Table 3 – Learning contents offered by institutions (1997-2007)

| <i>Learning Cluster</i> | Absolute Frequency | Relative Frequency (%) |
|--|---------------------------|-------------------------------|
| Activities related to Electronic Devices, Technological Innovation and Machinery | 138 | 20,0 |
| Activities for Health and Consumer Protection | 126 | 18,5 |
| Activities of trade and services | 52 | 7,5 |
| Activities related to the Leisure, leisure education | 37 | 5,4 |
| Activities of Training and Education | 34 | 4,9 |
| Activities of the Information Technology and Communication | 34 | 4,9 |
| Management Activities | 28 | 4,1 |
| Agro-Livestock Activities | 27 | 3,9 |
| Administrative Activities, accounting and finance | 49 | 7,1 |
| Planning Territory Activities | 19 | 2,8 |
| Physical Activity and Sport | 16 | 2,3 |
| Others ⁴ | 127 | 18,5 |
| Total | 689 | 100,0 |

xv) 61 institutions surveyed (8.9%) did not organize any activity that involves learning, during the study period (1997-2007);

xvi) The highest relative frequency of learning contents offered by the institutions of the county of Alandroal, relate to maintenance activities of

⁴ 37 clusters with an index less than 2% each. Particularly learning contents in the following areas: Partnerships, Initiatives and Entrepreneurship, Geriatrics, Civil Protection, Communication, Logistics, Music Services, Restaurants, Health, Decoration, Entertainment, Law, Languages, Biochemistry, Hunting, Culture, Industry, Reading, Social, Social, Craft, Cinematography, Hospitality and Lodging, Mathematics, Painting, Religion, Agriculture and Livestock, authority, hairdresser, Dance, Photography, Interpretation, Theatre, Weaving, Tourism

electronic equipment, with the Technological Innovation and Industrial Machinery (20%), possibly a result of business and small existing industries in which there is a frequent need to replace and upgrade equipment;

xvii) Activities related to the provision of health care and consumer protection (18.5%) also potentiate the organization of learning contents, by the institutions. Evidence that perhaps reflects the significant role of institutional activities aimed at a literate and young population;

xvii) 63% of those involved in the institutional learning contents were the owners of the institutions. The learning situations identified were episodic (in 38.4% of cases) or permanent (31.6%);

ixx) 55.9% of respondents said they didn't certify the learning that took place, which demonstrates a low concern for the relevance of academic knowledge and skills built or strengthened.

5. Final Reflection

At the moment research project has proved an interesting subject of study, with obvious potential for exploration. In fact, the group of existing institutions overcame by a large extent, the initial expectations and the identified set of learnings is clearly beyond what was imaginable, in an area as small and in a small demographic. We have now a clear perception that the test - still ongoing - to the learnings identified will reveal a universe a still unknown, of non-formal and informal education contexts, but decisive and significant in the qualification process for individuals residing in the county of Alandroal. Given the already evident differences between the various parishes of the territory, at the level of institutional qualification, it is expected that the learning experiences achieved by the resident population in each context would, therefore, reveal multiple levels.

One certainty, however, may already be taken: the territory is a determining factor in the process of qualifying individuals and institutions. It is clear and fundamental that in each territorial context, there should be a proper mapping of all existing learning contents. Without this exercise, conceptually and institutionally, broad and rigorous, you can not build a true educational map, as a real and participated tool to support local and regional management of Education and Training.

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Support provision to schools in a context of HIV/AIDS and poverty – A case study from South Africa

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Abstract

This research paper presents a case study aimed to explore and describe support provision in a South African primary school, examining, in particular, the significance of leadership, organisational development and gender-related matters in addressing the needs of children made vulnerable by HIV/AIDS and poverty. The methodological rationale for the qualitative research approach formed part of a search for meaning within the cultural diversity of a school situated in a semi – rural and marginalised community. A number of interlinking factors were found to influence the appropriateness of the HIV/AIDS support provision. Main findings relating to gender, leadership, capacity and cultural sensitivity illustrate the complexity of the issues involved. The paper concludes that problems of HIV/AIDS-affected children, families and communities do not only overlap considerably with the problems related to poverty – a widely held view among researchers – poverty-related problems may, indeed, conceal the very existence of HIV/AIDS to support providers.

Keywords: HIV/AIDS – Poverty - Vulnerability- Gender - School Leadership

1. Introduction

In this paper, I focus on how the education system supports teachers in carrying out their roles as teachers and caregivers in the context of HIV/AIDS and poverty. The logic behind this is very straightforward: in order for the teachers to provide quality support to the learners, they themselves need to receive quality support from the education system.

In South African education, the legacy of apartheid has left many schools under-resourced and unprepared to cope with transformation-related policies regarding, amongst others, a new school curriculum, restructuring and re-culturing of the whole education system. Meerkotter and Lees (2003) make the point, however, that schools – inadequate as they may be – remain the best placed social institutions in South Africa through which appropriately prepared teachers, in collaboration with other professionals, the governmental and non-governmental sectors, the business sector and various structures in civil society could make a difference in the lives of many children.

This paper is based on a case study for a PhD (Olsen, 2007) involving an investigation at a primary school in Cape Town over a period of two years. It attempted to establish what the challenges of daily life were in an under-resourced school, and how these were addressed in a context of poverty and

HIV/AIDS. The appropriateness of the support provided by the education department to schools serving marginalised communities was the key area investigated and reported on. In order for schools to deal meaningfully with the challenges connected to HIV/AIDS, there is a need for a well-functioning school support system. Recognising this need, the South African Education Department encouraged the introduction of school support structures at provincial level. In 2004 the Western Cape Education Department (WCED) launched the HIV/AIDS Life Skills Programme (WCED, 2002) to be implemented through the newly established HIV/AIDS support structures at district level.

This paper presents an analysis of some emerging issues from the thesis data, to provide a deeper understanding of key challenges faced by the case school with regard to HIV/AIDS and poverty, and how adequately these are addressed by the Education Department's support structures. It includes the discussion of some of the findings in the study, and may provide useful input to the ongoing debate on appropriate educational responses to the needs of children made vulnerable by HIV/AIDS and poverty.

2. Methodology

The rationale for using qualitative research in my thesis is represented by the search for meaning within the context and cultural setting of the participants in the case study in an effort to understand issues related to HIV/AIDS in schools.

The case school – with the adjacent crèche – is situated in one of the most deprived areas of Cape Town, in a semi-urban setting. The surrounding farming community consists mainly of coloured people working on farms. Learners also come from two informal settlements – commonly called 'squatter' areas – inhabited mainly by black people who have migrated from rural parts of South Africa.

All school and crèche staff are so-called coloured people, and with the exception of one parent assisting in a class, they all lived in other and considerably better resourced areas than those of the learners. About two thirds of the learners come from the farming areas surrounding the school, and the remaining third are transported by school bus from the informal settlement areas.

The literature review and a documentary analysis included documents on the design and implementation of training programmes to facilitate organisational change in the Western Cape Education system. In addition, written records of what was observed in schools on the schools' AIDS days were kept and supplemented by other data such as written records of the case school vision, school policy on HIV/AIDS and extracts of attendance and drop-out records over the past four years. Literature on change and education reform programmes was used to provide an analytical framework to develop a deeper understanding of the impact of change and reforms on the daily running of the case school, as well as to explore the adequacy of the Education Department's support to schools in this context of change.

The instruments or techniques chosen for the case study needed to provide rich descriptions, therefore in-depth interviews and observation were chosen. Loosely structured or semi-structured interview guides were employed in order to capture complexities and nuances in the data. Semi-structured interviews were conducted with the school's principal, teachers (focus group and individual interviews) and selected learners (focus group), as well as with field staff working within the structures of the Department's HIV/AIDS Life Skills Programme. Other respondents, linked to the school and school community, were interviewed individually.

The research process was a continuous gliding between handling the primary data, understanding, critically interpreting and reflecting throughout the research 'journey'.

3. Results and discussion

All the teachers as well as the principal stated that they did not know of any learner who is HIV-positive. Shortly after I initiated my investigation, the principal and the class teachers came to know of two siblings in the school who were affected by AIDS. The fact that so little was known about the impact of the epidemic on learners attending the school constitutes an unexpected finding that was not anticipated during the initial phases of my research. All learners in the case school live in areas believed to have a high HIV prevalence. During the process of interpreting the meaning of this finding, the question of why teachers did not respond to the many indications of HIV/AIDS prevalence that I observed in the school, became an important point of focus in this investigation.

Can culture, class and/or race/population group explain why teachers in the case school did not identify any learner infected with HIV and so few affected by AIDS? Is it stigma, fear and prejudice which led to their lack of identification in this regard? Or could it be the overwhelming impact of the socio-economic problems facing the school that led to a situation in which already over-burdened teachers looked the other way when it came to the devastation caused by the HIV and AIDS pandemic?

3.1. Disabling home environment?

The home environment of the learners (meaning school community/local community and not the individual home as such) can clearly not be regarded as a positive and enabling environment for the children.

The interlinking factors of widespread poverty, drug/alcohol abuse, rape, child rape and HIV risk behaviour were evident in the communities forming the catchment area for the school. The data gathered for the thesis indicate that the learners were at high risk of being exposed to HIV, both as potential victims of rape and/or as active participants in risk behaviour such as drug/alcohol abuse and the practice of unsafe sex. The indications of HIV prevalence among learners at the school, potentially linked to unprotected sexual activity, drug/alcohol abuse and sexual abuse, are one of the findings in my case study. Based on teachers' observations, and in spite of an apparently high level of awareness

about HIV transmission among the learners in the school, unprotected sexual activity was taking place amongst learners.

The teachers in the school had noticed learners using drugs and some teachers claimed this was on the increase. Youth risk behaviour and interlinking aspects of that behaviour are being increasingly well-documented by South African and international studies. The potential link between drug abuse, unprotected sex, sexual violence and HIV prevalence are found to be alarming. This link was not recognised by the teachers, only by the principal, and probably more as an afterthought to my questions.

According to statistics from the Medical Research Council (MRC), substance abuse in the Western Cape over the past three years "... has skyrocketed, with the age of drug users ranging from 10 to 54" (Kassiem, 2007:5). The largest group, with tik as their primary drug of choice, is aged between 15 and 19, closely followed by the 19 to 24 year age group (MRC, 2006). These age groups coincide with the age groups particularly vulnerable to HIV infection.

The statistics also reveal that "... while the 'face of tik' is predominantly male, coloured, unemployed and single, the drug is gaining popularity among females, with both sexes using the drug in almost equal numbers" (Kassiem, 2007:5).

In the context of HIV/AIDS, these findings have prompted researchers to start examining the link between tik use and risky sexual behaviour. The Alcohol and Drug Abuse Research Unit at the MRC has conducted a survey among 4 600 Grade Nine learners at 30 schools in Cape Town in 2005. The survey found that more than half of the learners had used tik in the past 12 months, and of those, more than a third had used it in the last 30 days. The alarming HIV infection figures amongst young people in the Western Cape could point to the extensive tik and alcohol abuse as high risk behaviour in the Province. "Further research is also needed to be conducted into why so many young people are still putting themselves at risk of HIV despite the comprehensive awareness and AIDS campaigns" (Kassiem, 2007:5).

The above indications are supported by the HIV prevalence figures from the 2005 nationwide survey which shows that South African children have a high HIV prevalence rate. In the two to four-year age group, 4.9% of boys and 5.3% of girls are HIV-positive, translating into an estimated 129 621 children. In the slightly older age group of five to nine years, 4.2% of boys and 4.8% of girls are HIV-infected and in the 10 to 14-year age group, this figure drops to 1.6% among boys and 1.8% among girls (HSRC, 2005).

According to the HSRC study, most children in the 10 to 14-year age group, are "... likely to have been HIV-positive from birth, but the incidence data suggests other factors which could include a breakdown in infection control in healthcare facilities, or sexual abuse" (HSRC, MRC and CADRE, 2005:1). The South African Police Service reported in 2003 that more than 40% of rape survivors were under the age of 18, with 14% under the age of twelve (2006:50). It is widely agreed that the number of cases are under-reported. In the weekly newspaper, *Mail & Guardian*, Joubert refers to a report released by the Human Sciences

Research Council (HSRC) in 2006, stating that cases of child rape reported represent only one out of nine actual rapes (Joubert, 2007).

According to Richter, Manegold and Pather (2004) most children affected by HIV/AIDS are also affected by conditions of poverty and exclusion. They argue that poverty exacerbates the spread of HIV infections and that it becomes, in itself, a consequence of AIDS.

South African and international research suggests substantial evidence that high levels of poverty in the family and neighbourhood increase a child's vulnerability to sexual abuse (Joubert (2007).

As noted previously, about one third of the learners at the case school came from impoverished urban informal settlements. The other two-thirds came from semi-rural impoverished areas with similar poor infrastructure exposing residents to health risks. Researchers based in Cape Town claim that the scourge of abuse can be partially explained by the stark economic realities facing a large percentage of black and coloured people in the townships of Cape Town (Joubert, 2007).

Statistical information with regard to HIV prevalence and HIV incidence broken down by age groups, gender, race and place of residence forms a basis that can give more weight to the HIV/AIDS indications emerging from the analysis of this thesis data. Rehle, Shisana, Pillay, Zuma, Puren and Parker (2007) conclude that figures of HIV prevalence and HIV incidence clearly demonstrate that people's place of residence is an important epidemiological variable because it embodies socio-economic contexts that influence the risk of HIV infection. They found that the HIV incidence amongst blacks (13.3%) is about nine times higher than the incidence found in the other race groups; white (0.6%), coloured (1.9%) and Indian (1.6%) (2007). Persons living in urban informal settlements were found to have by far the highest incidence rate (51%), compared with those living in rural formal areas (16%), rural informal areas (14%) and urban formal areas with an incidence rate of 0.8%.

3.2. Enabling school environment?

Contrary to the expectations that the figures and studies described above imply, the teachers in the school had not identified any learner who was infected, and only two siblings affected by AIDS, which constitutes a prerequisite for teachers to offer or access support if needed. With the exception of one teacher, all teachers, including the principal, were supporting the statement made by one of their colleagues, who convincingly said towards the end of my field study:

We have not yet identified any learner infected with HIV – not even suspected it!

The school's HIV/AIDS Coordinator reinforced the statement by claiming:

AIDS does not fit here.

This contradicts teachers talking about learners practising risk behaviour, as well as traumatic cases of sexual abuse and child pregnancies. During the investigation, I also observed physical signs in a significant number of learners that could be interpreted as symptoms of HIV infection. The teachers, with one exception, explained these as signs of unhygienic living conditions and practices, irresponsible parental behaviour or as signs of the spring season. According to the teachers these conditions were caused by weak immune systems. Other signs like stunted growth and/or being underweight, which were common factors among the learners, were explained by the teachers as results of poverty.

Findings from my interviews with people closer to the learners' home environments did not support the case school teachers' explanations. Learners themselves made statements in the group interviews as well as in the classrooms which indicated that they knew about the existence of HIV/AIDS in their home environments.

The interviews revealed a significant number of indications of a high prevalence of HIV infections and AIDS in the district, which also finds support in the statistical information provided by the Western Cape Education Department.

4. Understanding teachers 'not seeing'

Why teachers either did not respond to warning signals of learners, male or female, possibly being infected with the HI virus, or were reluctant to do so, became a pivotal question to address.

4.1. When abnormal signs become the norm

I argue that the warning signs described above that could have been associated with HIV and AIDS were not noted due to the fact that the teachers understood the signs as 'normal' for the learners since 'all' children were regarded as vulnerable because they lived in poverty. The same analysis can be applied to other indications of vulnerability caused by HIV/AIDS, such as learners' absence from school. A significant number of learners in the case school have responsibilities at home, like subsistence farming or other income generating activities and household chores which could be expected to add to a high level of the absenteeism. Also, bad weather conditions in winter, long walking distances to school and lack of transport were often the reasons given for learners' high absenteeism. The teachers knew this and therefore thought of absence as 'normal' which rarely gave cause for alarm.

4.2. Teachers' ability "to go that extra mile"(teacher)

My analysis of the data gathered for my investigation revealed that the teachers in the case school had not received any training in how to counsel learners with social problems.

A few teachers in the case school even expressed the feeling that there was no use in teaching and empowering the learners in terms of sexuality and HIV/AIDS as they are exposed to extensive abuse in their home environments.

The majority of teachers as well as the school principal did not seem fully to acknowledge the relevance and importance of the HIV/AIDS Life Skills syllabus for the school as they had not identified a single HIV-infected learner. The feeling of ineffectuality amongst most teachers seemed reinforced by the impoverished teaching and learning environment in the school. Most teachers expressed poor motivational levels regarding the HIV/AIDS syllabus and related extra-curricular activities.

I therefore argue that the thesis data consisted of sufficient evidence to claim that there seemed to be a strong denial regarding HIV/AIDS among the majority of the school's staff members. The denial results in a dominant, albeit inconsistent and contradictory belief that HIV/AIDS may exist in the school communities, but not in the school itself.

4.3. The additional challenge of FAS

My impression is that the case school faced one additional challenge linked to poverty which could have a 'blinding' effect on the principal and the teachers in terms of HIV/AIDS. The significant impact of FAS on the teaching/learning environment made particularly heavy demands on teachers' time and energy in the school. All teachers reported that a significant number of learners were suffering from FAS, a problem well-documented in South Africa, and in the wine-producing Western Cape Province in particular. The effect of FAS on learners was acknowledged by the majority of the teachers. The teachers felt that there were no places to refer these children to for the necessary support.

The number of learners at the school who were over the average age for their class grade due to the prevalence of Foetal Alcohol Syndrome (FAS), made sexual activity among primary school learners even more likely. Idle out of school youth who were observed in close proximity to the school added to the risk embedded in the FAS phenomenon.

4.4. Prejudices, denial, non-disclosure and stigma

The findings of the thesis confirmed that stigma and fear of disclosure are very much present in both the poverty-stricken school and its communities. This interpretation of the data supports the findings of researchers who claim that HIV/AIDS in African communities in particular, coincides significantly with stigmatisation and other discriminatory practices (Strebel, Crawford, Shefer, Cloete, Henda, Kaufman, Simbayi, Magome and Kalichman, 2006).

It is very clear from my interviews with teachers, learners and people living and working in the case school's communities that stigma linked to HIV/AIDS is widespread and deeply rooted. Stigma probably explains why most learners did not seem to confide in their school teachers. Statements made by learners in the

group interviews as well as statements they made in the classrooms when people other than the teacher was in charge of the lesson on HIV/AIDS, indicate that the learners know about the existence of HIV/AIDS in their home environments. One learner even stated:

We are not meant to say!

The HIV/AIDS Programme Coordinator emphasised that parents' involvement and support varied greatly between the schools and could in some instances be "tricky still". Some parents or other guardians of learners in my study were even found to beat learners when they talked of HIV/AIDS issues learnt in school.

All case school teachers expressed a need to be trained in skills on how to approach parents/guardians to establish their status in order to assess learners' need of support without risking a breach of confidentiality. Some teachers felt unable to act and even withdrew out of fear of disclosing somebody's status.

4.5. Teachers' own prejudices and fears: Issues of 'us' and 'them'

Some of the teachers acknowledged the prejudices and fears within their ranks. As described above, the teachers had very little knowledge of the home circumstances of learners, a fact which could have forged prejudices and fears. This probably led to misconceptions and a poor understanding of learners' messages; whether expressed verbally, or through their behaviour (aggressive/passive or extrovert/introvert), or indirectly in the case of their physical appearance. The learner might, for example say something like: "My mother is ill", which could be interpreted by the teacher as: "The mother is drunk".

When analysing what the teachers were saying in more detail and cross-checking with what learners conveyed in different ways, and with the interviews held with other respondents, the question arises whether teachers' own prejudices and fears led to misconceptions and to mentally block, deny or dilute other realities potentially embedded in what they had heard and seen in school.

The HIV/AIDS Programme Coordinator claimed that during the teacher training workshop, the facilitators observed that workshop participants were not comfortable discussing their own sexuality or in discussing related issues.

5. Summary

The thesis data demonstrate that many and interlinking challenges arising from disabling conditions in both the home and school environment are apparently overwhelming most of the teachers' ability to adequately address the problem of HIV/AIDS. The findings largely coincide with other research in similar socio-economic locations in South Africa.

However, based on my research findings in the case school and its communities, I conclude that the problems of HIV/AIDS-affected children, families and

communities do not only overlap considerably with the problems related to poverty – a widely held view among researchers – but that poverty-related problems may, indeed, conceal the very existence of HIV/AIDS. The investigation shows that widespread poverty and related social problems affecting the case school learners seem to have 'blinded' teachers in terms of 'seeing' the learner in a context of HIV/AIDS. All the warning signs that could have been associated with HIV/AIDS were not noted due to the fact that the teachers understood the signs as 'normal' for the learners since 'all' the children were regarded as vulnerable because they lived in poverty. This phenomenon in the case school was observed in spite of the HIV/AIDS Programme Coordinator claiming that the district's teachers had learned to 'see' the learner in ways which they had not prior to the introduction of the Western Cape Education Department's support programme.

These findings give solid documentation to the argument that teachers and the principal are overburdened with administrative work related to the many and frequent educational reforms in South Africa. The additional work caused by the reforms constitutes another obstacle against 'seeing' learners made vulnerable by HIV/AIDS and poverty. The poor availability of external support experienced by the case school reinforces the tendency for teachers to turn 'a blind eye' to yet another problem requiring them 'to go that extra mile' in support of vulnerable learners. I conclude that the teachers' reluctance to see learners in the context of HIV/AIDS is understandable and justifiable.

It is therefore clear that the findings linked to the concealment of the epidemic should be included in the discussion on how to support teachers and learners appropriately in this context. In poverty-stricken communities, there might be a need to provide education, training and support that enable teachers and principals to see beyond the 'normality' of distress signals in learners.

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Expressions Artistiques et Sens de l'éducation

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Abstract

Si parler d'éducation est prendre en compte la promotion du développement des enfants et des jeunes, en tant qu'êtres globaux et différenciés, alors cela exige que l'école, principal agent de l'éducation formelle, donne à ces enfants et jeunes des opportunités diversifiées d'expérience du monde qui les entoure et de s'exprimer par rapport à ce monde. Dans ces opportunités diversifiées de vivre l'expérience du monde doivent figurer évidemment les arts. Même si, historiquement, les arts ont été secondarisées en faveur de la science, les maths et les plusieurs recherches et divers organismes, parmi eux l'UNESCO, reconnaissent que les arts à l'école augmentent le potentiel cognitif et ouvrent les portes à la compréhension et entendement du vécu. D'un autre côté, les arts dans l'éducation actuelle se voient désigné un rôle transversal, qui vise essentiellement l'art justifié instrumentalement afin de promouvoir la qualité de l'apprentissage d'autres domaines (Sahasrabudhe, 2006). Quel est alors l'importance des expressions artistiques dans le développement global et harmonieux des enfants? Quel est le rôle des arts dans l'éducation? Quelle est la formation des enseignants qui sont responsables par les disciplines d'enseignement artistique? Toutes ces questions sont actuelles, d'autant plus, depuis les changements suggérés par la globalisation. Une vision fonctionnaliste des arts se pose-t-encore, de telle façon que les activités proposées à l'école n'ont de sens ni comme art ni comme forme d'expression. Nous pouvons dire que les ressemblances sont de pures coïncidences... Cette communication sera illustrée et approfondie partant de quelques exemples et d'observations dans des écoles et des entrevues avec des enseignants ou encore reprenant des thèmes de débat dans des réunions avec des enseignants, afin de permettre une approche des sens de « l'Éduquer » aujourd'hui.

Mots clés: Éducation artistique - formation d'enseignants - développement de l'enfant

Si nous prenons comme référence le rôle des arts dans le développement des enfants nous avons tout de suite un écueil que nous préférons considérer comme un écueil de langage plutôt que de prise de position épistémologique. En effet, le concept de **rôle** soulève certaines questions que nous discuterons – nous avons présent l'article de Jacques Coenen-Huther - mais cela ne va pas nous empêcher de l'utiliser, parce que, en fin de comptes, tous les jours ce mot est utilisé et, son utilisation pose des questions très importantes par rapport à notre thème de discussion.

C'est peut-être à propos des arts que nous entendons le plus souvent – dans le monde du spectacle, dans les espaces artistiques, dans le milieu scolaire, dans la formation d'enseignants, - cette question et cela parce que chacun cherche sa place dans le monde et cette place nous donne une illusion nécessaire d'identité acceptée par l'autre proche, mais aussi par l'organisation sociale, soit vécue consciemment dans notre quotidienneté institutionnelle, soit par les

interrogations qui nous soulèvent la communication sociale, les lois, la société en général. La question du rôle s'introduit constamment dans nos conceptions d'identité personnelle et professionnelle.

Nous sommes ici au plein de la contradiction des concepts: d'un côté, les sociologues, en particulier, qui demandent une définition de ce que c'est l'art – et ceux qui s'assument en tant qu'artistes qui affirment: l'art n'as pas à se définir, elle existe, elle communique, elle est un langage, une forme d'expression et encore ceux qui veulent se démarquer dans le monde du travail, l'art est une profession... et nous ne sommes pas dans le terrain de l'artisan.

Une autre contradiction qui se pose, de façon plus aigue, dans notre monde actuel est celle de vouloir être artiste (sans avoir exactement une notion de ce que qui fait de soi un artiste: l'expression, la créativité, l'originalité, la reconnaissance par les autres?) et, en même temps, survivre économiquement, soit faire de cette «qualité» une profession rentable (il y en a des exemples), ou devenir enseignant d'une «discipline» artistique, de rentabilité économique limité et pas toujours gratifiante.....

Se choisir la profession d'enseignant signifie se soumettre à une formation et à des programmes définis par d'autres... se soumettre et soumettre les «apprentis» à des horaires, des programmes, des évaluations, des classifications, des examens... De toutes façons, les enseignants des aires artistiques on commencé par avoir une formation dans le cadre artistique, c'est à dire, ils ont déjà été (con)formés et nous nous rendons compte, tous, qu'être artiste exige beaucoup de travail, de connaissance et reproduction de modèles, sans perdre de vue, au moins pour certains d'entre eux, l'expression et la créativité personnelles, marquant leur identité d'artistes.

Et nous allons directement au thème de notre communication, c'est-à-dire, «les expressions artistiques et les sens de l'éduquer».

Si les arts sont des formes d'expression et si l'une des caractéristiques spécifiques de l'être humain est le besoin de s'exprimer, de communiquer, est-ce-que les arts ont un rôle particulier dans le développement des enfants et dans leur avenir comme adultes?

Guerra, M. (2006), professeur à l'École Supérieure d'éducation, à Coimbra, dans le cadre d'une unité du curriculum de formation théâtrale, exclut carrément la vision positiviste du «rôle du théâtre» à l'école. Il soutient que les enfants doivent avoir des opportunités d'appropriation du langage artistique, mais que cela ne peut se faire sous la logique complaisante actuelle, qui se centre dans la dimension psychosociale que ces activités, entre beaucoup d'autres, peuvent avoir. Même si nous comprenons le sens critique de la désignation de complaisance appliqué à ces activités et le sens réducteur donné à la dimension psychosociale, nous considérons qu'il faut assumer que la formation des enseignants et les décisions politiques concernant l'école en sont les premières responsables.

Nous n'avons pas de doutes en ce qui concerne l'importance des opportunités d'appropriation du langage artistique, de la même façon que nous croyons que la

possibilité d'un apprentissage expérientiel du monde a travers les arts promeuve le développement esthétique, socio-émotionnel, socioculturel, cognitif de l'enfant **et de l'adulte**, contribuant à la réussite académique (Iwai, K., 2002).

Au XXème siècle nous assistons, un peu par tout le monde occidental, à la survalorisation des unités scientifiques, ainsi désignées par ce que certains domaines étaient situés entre les sciences exactes, en détriment des sciences des humanistes et artistiques. Au Portugal, en 1965, l'Association Portugaise d'Éducation par l'Art, a été fondée par plusieurs intellectuels comme João dos Santos, Calvet de Magalhães, Almada Negreiros entre autres, pour ne référer que les plus connus internationalement. Cette association défendait l'idée de l'utilisation de l'art pour stimuler l'apprentissage donnant à l'éducation un caractère plus concerné par le développement de l'enfant, par les questions de l'importance du jeu et de la créativité que finalement par donner un espace spécifique aux arts entre ou en dehors du cadre de l'enseignement. Par contre, cette position, accusée par certains de positiviste, se situait du côté de la recherche d'un rôle social pour l'art, qui, à l'époque était de certaine façon moins visible du côté du pouvoir, mais représentait un moyen de lutte significatif même si semblait réduire les espaces possibles et désirés sans limites de l'art.

Après 1974, avec la chute du gouvernement anti-démocratique, l'éducation a participé au renouveau du pays en devenant un lieu privilégié de promotion du développement du pays, donnant à l'enseignement et conséquemment à la formation des enseignants l'occasion de devenir des citoyens actifs et intervenants dans le changement de la société, soit à partir de l'école, soit à l'intérieur de l'école. Dans cette période «d'après révolution» les questions de l'art et de son rôle n'étaient pas si démarquées, entre l'école et la société. Les artistes étaient dans la rue, dans la ville, à l'école. C'était un temps où il y avait du temps à participer, à collaborer et à faire son travail. Le premier programme sorti pour l'enseignement primaire, donnait une place importante à la créativité, à l'imagination, à l'expérience des expressions artistiques, sans devenir une valise de recettes, de normes, de régulations, etc. En même temps, la formation des enseignants prenait soin des expressions artistiques et de ce que l'on appelait alors «mouvement et drame»⁵. Quel était alors l'impact de cette formation en ce qui concerne les enseignants et aussi, les enfants e jeunes élèves? Il faut dire que cela a été beaucoup plus accepté par les jeunes en formation aux écoles du Magistère Primaire que par beaucoup d'enseignants (du Magistère et du Préparatoire) qui avaient déjà une large expérience d'enseignement et perdaient la liberté de leurs routines. Par contre, les écoles sont devenues plus ouvertes à la population, en particulier aux parents, mais aussi aux différents métiers, artistiques, artisanales qui permettaient aux enfants de reconnaître socialement les professions les plus diverses (Pacheco, N. A., 1999).

Le débat à propos des concepts d'enseignement et d'apprendre essayait de se résoudre proposant le concept ambivalent, peut-être, mais très fonctionnel par sa dynamique, d'enseignement-apprentissage.

⁵ Dans ce cadre nous ne pouvons pas oublier l'importance de Gisèle Barret, dans la formation des enseignants.

La volonté politique de normalisation qui a marqué les années 80 et qui, en ce qui concerne en particulier l'école, progresse dans le sens de l'homogénéisation européenne, a négligé l'expression artistique, rendu aux arts le coin des utilités, en faveur des sciences dites exactes, les maths, les techno, la langue portugaise, mais aussi, nous dirions presque, plus encore, la langue anglaise. C'est vrai que plusieurs recherches et diverses organisations, entre lesquelles l'UNESCO, reconnaissent que les arts à l'école augmentent le potentiel cognitif et ouvrent les portes à la compréhension et l'entendement du vécu de l'expérience. Mais, d'un autre côté, les arts dans l'éducation aujourd'hui se voient avec un rôle transversal, qui vise essentiellement, l'art justifiée, instrumentalisée pour promouvoir la qualité de l'apprentissage d'autres thèmes (Sahasrabudhe, 2006). Dès l'année 2000, nous assistons à un renouveau des études qui soulèvent l'importance de proportionner aux enfants et jeunes un développement global, d'où, forcément les expériences artistiques doivent être incluses. Sans doute qu'une grande partie de ces études se fonde dans des travaux très rigoureux⁶ et les systèmes politiques ne peuvent pas s'empêcher de le reconnaître, dans leurs discours d'analyse et/ou d'intentions. Pourtant, l'inclusion des arts dans les curricula apparaît dans toute sa complexité. Beauchamp & Harvey (2006) les considèrent des 'scary areas', d'autant plus que même si, dans la majorité des pays, il y a au moins une aire artistique dans les curricula obligatoires, les enseignants qui en sont responsables, sont considérés comme une partie de l'opérationnelle de l'école, sans espace pour exercer leur propre créativité et promouvoir celle des élèves.

En vérité, l'expérience que nous avons et le recueil que nous avons déjà, tout au long des années de formation d'enseignants et des entrevues réalisés⁷ en ce qui concerne nos projets de recherche, la transversalité des aires artistiques aurait pu être enrichissante, si elle n'avait plutôt ce côté particulier, que nous désignons de coin des utilités. En premier lieu, nous devons reconnaître que la transversalité existe à l'institution scolaire et n'est pas spécifique des arts. La langue nationale est un exemple qui n'a besoin de clarification, tout le monde s'en sert, tous les jours, dans tous les cours. Elle a une importance fondamentale, personne ne peut nier son rôle et sa transversalité et, pourtant elle est démarquée avec les Maths. Toutes les autres unités curriculaires doivent faire un effort pour se faire reconnaître. En général, cet effort est marqué plutôt par l'isolement et par la tendance à rendre «plus sérieuse» chacune d'entre elles,

⁶ Par exemple, certains des études publiés par le Centre Pompidou (Eds)(2008) A européen and international research symposium. Evaluating the impact of arts and cultural education

⁷ L'une de nous fait, depuis les années 76 jusqu'à aujourd'hui, de la formation d'enseignants de plusieurs domaines, en particulier, les dernières années, d'enseignants et d'étudiants en Master en Formation d'enseignants des arts Visuels. L'autre de nous, travaille dans la recherches, en particulier à travers des entrevues à des enseignants de Musique, mais aussi par sa pratique en tant que psychologue avec des écoliers, leurs parents et enseignants, ce qui est aussi un espace de dialogue formatif et nous permet de retrouver des situations très proches l'une et l'autre.

soit par son langage, soit par les classifications, soit encore par des aspects de rigueur d'attitude réduisant la communication à la transmission d'information de l'enseignant à l'élève. Le sens de l'éducation, ici, se limite à l'exigence de la reproduction d'une information qui, d'ailleurs est elle aussi, presque toujours, une reproduction raccourcie de connaissances construites par des chercheurs... C'est presque impossible de le faire quand les enseignants savent que leurs élèves seront objet d'examens nationaux et les uns et les autres seront classifiés.

Revenant aux arts, les enseignants des arts se plaignent en premier lieu d'être le recours pour les fêtes les autres enseignants laissant, vite fait, toutes les activités concernant Noël, Pâques, Carnaval... dans leurs mains. D'un côté, ils oublient, par exemple, l'intérêt de ces fêtes pour leurs propres matières d'enseignement, d'autre côté croient que cela c'est justement l'objet d'étude des enseignements des arts et que ceux-ci sont toujours plus faciles. Évidemment, on a un certain respect par la musique, qui a de plus en plus démarqué son terrain... Qui fait des épreuves écrites, devient très rigoureuse à leurs yeux. Une autre question qui se pose, dans leurs rapports, est celle qui concerne l'âge des élèves, qui parfois va à l'encontre des opinions des parents d'élèves qui croient encore que certaines disciplines ne sont pas bonnes soit pour les garçons, soit pour les filles et en plus que ce sont des formations qui ne leur donneront pas assez d'argent pour vivre, ne sont pas des professions sérieuses... Comment aller à la rencontre des motivations de leurs élèves, comment ne pas se sentir isolé entre gens très «rigoureux», sans devenir très «rigoureux» aussi.

Enfin! Si c'est vrai que beaucoup d'enseignants comprennent et profitent de ce que c'est vivre dans une ambiance de multiples connaissances, qui peuvent se croiser et s'enrichir, il est vrai aussi que les décisions politiques ont des décisions perverses, avec la création d'activités d'enrichissement scolaire, des clubs, etc., disponibles pour des personnes sans qualification suffisante et avec des salaires mineurs.

Continuellement se renouvelle le besoin de l'imagination a fin de dépasser les "nouveaux" problèmes, ce que rend évident le besoin de (ré)inventer le système éducatif (Ribeiro, 2002). Que faire? Des recommandations parfois assez dures, de l'Unesco sur l'importance d'intégrer les arts dans l'éducation, proposant le débat d'idées, de connaissances et de pratiques... L'école sort de l'école et va a la rencontre d'institutions comme L'IRCAM (Paris), la Maison de la Musique (Porto), certains Musées et Associations qui ont des propositions toujours enrichissantes où les enseignants se retrouvent entre «arts et sciences», cherchant à inventer le système éducatif où ils puissent se reconnaître.

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Foreign Language Learning and World Englishes Philosophy

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Abstract

This study seeks to explore the influence of world Englishes philosophy on English language learning in Iran. According to the proponents of World Englishes, English does not belong to England or America. This notion, with its postmodern philosophy, highlights the role of diversity in language acquisition, meaning that language learners are not expected to follow the English or American standards fully; for example, they are not obliged to acquire a native-like accent like Americans. Although it seems that the idea of World Englishes is accepted by so many countries, in some countries like Iran (in which English is a Foreign Language) the idea has not been embraced by teachers and language learners. Therefore, this study, through meticulous analyses of micro and macro elements in the social, cultural and educational contexts of Iran aims to shed more light on the reasons why the idea of World Englishes is not appreciated in the educational context of Iran. Finally, some suggestions are made to change the teachers and learners' attitudes to embrace the idea.

Keywords: Foreign Language Learning – Postmodernism - World Englishes

1. Introduction

There is little question that English is the lingua franca in the globalization era. The global spread of English has made scholars in the language education reflect deeply on the repercussions of English language dominance in the world. Moreover, the spread of postmodern notions which focus on diversity and pluralism, and postcolonial assumptions which resist the mental dominance of any culture, has given rise to the idea World Englishes. This theory highlights the diversity of English language, holding the view that there is no one Standard English.

The idea of World Englishes, rejecting English and American native speakers as the owners of English, highlights the legitimacy of new Englishes which are developed through acculturation and indigenization of English, i.e., influencing English language by local cultures and languages (Kirkpatrick, 2007). This movement in line with democratic ideas tries to present English as an international language, holding that English language must be devoid of any political and social values.

It seems that though this notion has been welcome by lots of educators in the world, in some countries like Iran the idea has not been accepted fully. As Saboori (2009) has shown Iranian English language teachers and learners consider American and British English as the standard ones, preferring to imitate them. Therefore, in this study, I like to pinpoint the reasons why Iranian

educators and learners do not embrace the idea. To this end, I try to analyze the issue from the philosophical, social, and cultural perspectives.

2. Theoretical Framework

The term *World Englishes* is mainly associated with Kachru (1982). The remarkable impact of Kachru in this field is not limited to his writing of many books and articles; but is also clearly evident in his editorship of the academic journal *World Englishes* as well as his being responsible for anchoring the annual conferences on world Englishes held by the *International Association for World Englishes* (IAWE). The underlying philosophy of Kachruvian approach argues for the "importance of inclusivity and pluricentricity in approaches to linguistics of new varieties of English" and deals with some other related topics including creative writing, critical linguistics, pedagogy, pidgin and creole studies, and the sociology of language (Bolton, 2004, p. 367; cited in Saboori, 2009).

According to Saboori (2009) World Englishes has its philosophical roots in Postcolonialism and Postmodernism.

Postcolonialism, according to Bressler (2007), emerges from colonialization period in the 19th century when Great Britain was "the largest colonizer and imperial power" in the world (p. 236). But this political, social, economic and ideological domination of England gradually started to disappear by the turn of the century through a process called decolonization, which reached its peak in 1950, by the independence of India. It was the birth of postcolonialism as a liberation movement.

Postcolonialism accounts for the radical social changes occurred during Postmodern era which led to "a significant delegitimization of authority and to a more egalitarian society" (Pishghadam & Mirzaee, 2008, p. 5). The aim of postcolonialism is to destabilize the stabilized institutions, and in SLA, in particular, decolonizing the colonized ELT is its main goal (Bressler, 2007). Some of its common themes include national identity, resistance, appreciation of differences, and protection of indigenous languages and cultures. Postcolonialism is much similar to postmodernism in its subjects and concerns.

To better grasp the idea of postmodernism, it is better to set out with a brief explanation of modernism, from which it has developed. Modernism, as a linear positivist movement, is rooted in the European Enlightenment starting in the mid-18th century. It seems with the decadence of the Catholic Church and the end of the Aristotelian logic and with the dominance of the Baconian inductionism and the emergence of the Newtonian physics, the first foundations of modernism were laid. Before the Renaissance, Europe was a theocratic society, in which God was the center of the universe and the supernatural phenomena ruled the natural phenomena and the Aristotelian deductionism was common, but when Bacon put more emphasis on the role of observation, and when Newton discovered some laws of the nature, man got proud of himself and found himself the center of the universe. Believing he could find the ultimate truth, he left no room for God or for the supernatural and reason. Rationalism and scientific method took over as the dominant interpretations of life. As in philosophy, the

modern period was started by Descartes who believed in exact and objective knowledge. He was a rationalist who believed in reason, thinking that reason can grasp truths, independent of time and place. It is based on the role of observation and scientific method and highlights the significance of objectivity, reductionism and rationality. In a nutshell, the scientific and social advancements of that period led to such great vanity that man considered himself as the center of the universe and believed in the possibility of finding the ultimate truth, and in the ideas of *the best* and *absoluteness* (Pishghadam & Mirzaee, 2008).

Postmodernism, on the other hand, as a nonlinear constructivist movement, holds that there is no center and hierarchy in the world, and relativism (vs. absolutism) diversification (vs. unity), and subjectivism (vs. objectivism) as the dominant viewpoints of the time put into question all the formerly taken-for-granted beliefs and where the deluding ideas of *the best* and *the perfect* no more make sense. This era, starting in the late 20th century, is also marked with a belief in the death of metanarratives and grand theories, claiming that no one can ever find the ultimate truth. It, instead, sheds light on the significance of pragmatism and calls for trying different methods and styles and evaluating them based on their appropriateness and applicability to the given context. In the same vein, it moves toward divergence through the appreciation of differences and celebrating local reality, truth, and values (Pishghadam & Mirzaee, 2008).

One of the major tenets of in the World Englishes is communicative competence. It occupies a fundamental position in World Englishes discourse and its high significance lies in the fact that, by highlighting the interdependence between the notion of appropriateness and the sociocultural context, it embraces a pluricentric view of language use. (Berns, 2006; Kachru & Nelson, 1996; cited in Saboori, 2009). Another reason concerning the importance of communicative competence to world Englishes involves its questioning the validity of a standard English (Berns, 2006). It is argued that, since each setting has its own cultural and social values and since local norms are shaped in accordance with these values, each setting calls for its own nativized variety of English, the one that corresponds to its set of values and norms. As a result, it seems quite absurd to think that Standard English –which culturally represents the Judeo-Christian tradition –can be used cross-culturally and in different international settings without impeding successful communication and intelligibility. It follows that no single communicative competence can claim the capacity to match all different local cultures and settings.

All in all, World Englishes ideology denies the validity of communicative competence as a monolithic notion just as it opposes the adoption of a variety as a standard and model (Berns, 2006, p. 723).

According to Saboori (2009), one of the most important achievements of World Englishes in the last three decades has been to challenge the standard language ideology and replacing it by the liberation linguistics ideology. The standard language ideology, according to Bolton (2004), is the traditional view in English studies which has awarded the American and British English the authority to provide and prescribe the norms of usage in all international English using contexts.

This tension between the prescription of a world standard English and the legitimacy and autonomy of world Englishes calls to mind the double-voicedness of Bakhtin's (1994) centripetal and centrifugal forces. Centripetal forces, as a modernist feature, are those calling for centralizing, homogenizing and convergence, which in the present context; contribute to the conformity to an authoritative and prescriptive standard variety which is believed to be the best. On the other hand, centrifugal forces, as a postmodernist feature, involve decentralizing and divergence and thus appreciate the diverse features and functions of English worldwide.

Widdowson (2003, cited in Saboori, 2009) held that Standard English guarantees effective communication and standards of intelligibility. In his idea, Standard English, which is usually defined in reference to its grammar and lexis, is primarily a written variety sanctioned for institutional use. Furthermore, he believed that Standard English is a *shibboleth*, marking the right sort of person. He elaborated on this issue arguing that while grammatical conformity, due to the in-built redundancy of language, is not crucial for effective communication, Standard English places much importance on it (rather than on lexis). The reason, according to Widdowson, is that grammar "is so often redundant in communicative transactions that it takes on another significance, namely that of expressing social identity" and so adopts the role of a distinguisher between members of the community and the outsiders (p. 39).

Widdowson (2003, cited in Saboori, 2009) striped the attitudinal goodness totally away from Standard English by noting the double standards concerning the issue. He elaborated on it explaining that the stability implied by Standard English is in contrast with the dynamic nature of language and that while Standard English calls for conformity, "proficiency only comes with nonconformity" (p. 42). So you are proficient in English to the extent that you do not conform to Standard English and do not submit to what it dictates to you. In other words, mastery means taking the possession of the language, bending it to your advantage, developing innovations in it, and being able to speak your mind rather than speaking the language.

Moreover, World Englishes calls the label *native speaker* into serious question and strongly denies a special status for it. It specially opposes the prevailing view that native speakers are necessarily better at speaking English and hence they would make better English teachers (Jenkins, 2003). Moreover, it argues that since English is used for international communication and is, thus, used among speakers from different nationalities, it simply makes no sense to talk of its non-native speakers (cited in Saboori, 2009)

3. Philosophical Considerations of Education in Iran

Pishghadam and Mirzaee (2008), held that Iran lives in modern era and describe the situation in Iran as follows:

There is no vestige of postmodernism in all levels of education in this country. The country has a conservative, centralized educational system: all decisions are

taken by the authorities in charge in the government, and schools and teachers are there just to conform to the expected rules and regulations; in fact, there is no room for them to make their voice heard. Educational institutions are considered to be the mere conveyers or performers of the governments' central policies.

In this kind of education, a one-size-fits-all policy is predominant; individual differences are not taken into account; and all people are tarred with same brush. For example one math book is taught for all second graders in all parts of the country, cities, small towns or villages. The policy is to unify all students from all walks of life (unification & global decisions).

The system of education in the country is reminiscent of Freire's "banking" concept of education in which students are viewed as "empty accounts" to be filled by teachers (Freire, 1970); students are there just to memorize and regurgitate their teacher and books' opinions. There is no room for students to display their abilities and develop their creativity (positivism). Teachers are mere conveyers' of the authorities; they are not allowed to air their own views. The educational system encourages them to find the best method for teaching English; their teaching methodology is directly influenced by the national high-stakes tests that are administered at the end of each year, before entry to university, and before being employed by any organization; so, they have to 'teach to the test' that in most cases entails negative washback. In general, it is probably fair to say that in schools there is a tendency towards making students conform to a perceived status quo, and towards the enforcement of codes of behavior and discipline.

As noted above, another important feature of modernity in this system of education is holding high-stakes tests which are quite common in Iran. These tests can shape the future life of the students; to be allowed to continue their higher education at university, all students have to take a high-stakes matriculation test at the end of high school. The test is a competition test, based on which not all candidates are given opportunities to pursue their education. As mentioned earlier, postmodern ethos and principles have emerged out of practices in the west, and since most TESOL takes place outside the Euro-American-Australian intellectual mainstream, one question springs to mind: Do postmodern notions in TESOL have actually had any substantial influence on the TESOL practices in most part of the world? The answer is unfortunately disappointing; it seems that TESOL like any other subject is no exception and has not been practically affected in practice by postmodern ideas.

Considering Iran, we witness that due to the centralized educational system teachers are not autonomous to take decisions or do any type of classroom-oriented action research, and, in most cases, they are not even familiar with the ABCs of reflective teaching. In fact, the search for the elusive best method is common in the form of 'a mad scramble,' as Brown (2002, p. 171) puts it, in both schools and English language institutes. Teachers at schools are preoccupied with preparing for the high-stakes test which is held at the end of secondary school. The test in English module is held in a multiple-choice format and the focus is basically on grammar, vocabulary and reading. Other skills such as speaking, listening, and writing are not catered to in both teaching and

testing. ELT teachers all the time try to put a premium on these skills tested in the exam and disregard the other skills which are very important. The book used for teaching English is uniform for all students around the country, and teachers have no right to select the materials which they think are apt for their students. Each year, various training seminars are held to find the best method for teaching English, for instance, to high school students.

Interestingly, although Iran lives in a modern era at some levels of education, it seems that postcolonial ideology is prevalent in Iran. It means that Iranian government has an anti-American attitude, resisting any mental dominance of the western or American culture. The way textbooks of English language is written in Iran, and the manner authorities treat English at schools buttress the idea that Iranians do not like the English imperialism at all.

4. Conclusion

Although the trend discussed do far is undoubtedly true of intellectual movements within academic circles in the western world, the extent to which they have actually permeated the thinking of teachers in Iran is minimal. Due to the aforementioned signs of modernism in Iran in which teachers and learners of English language search for the best, trying to imitate American and British norms as closely as possible; in such a context people seem to lose their own culture to get another one. Regardless of social and cultural issues, one important reason is that the teachers centralize the English culture in class at the expense of marginalizing the Persian culture.

It is quite fair to claim that whenever one is after finding the best, cannot accept any deviation from the standards. It seems that Iranians accept only English and American accents as the best. That is why; they try to imitate them closely. Moreover, Iran is a country in which English is a foreign language. Iranians have no contact with the English native speakers and English is not spoken outside the classroom, therefore, it is right to claim that Iranians have no variety of English and they have to mimic another accent.

As it was mentioned before, although Iran lives in a modern era, it has been overshadowed by postcolonial ideology, and as it was discussed before, postcolonialism is more compatible with the World Englishes not World English. Thus, the question which springs to mind is: Why do they adhere to the World English philosophy? One reason can be the dominance of modernism and the standard-searching procedure followed at all levels of education and life in Iran. Another reason can be the centrifugal tendencies of Iranians and the tension between internally persuasive discourse (learners) and authoritative (textbooks) discourse (Bakhtin, 1981). Besides, from the cultural perspective, Iranians are perfectionist, wishing to learn everything to the exact and minute details.

Based on what was discussed, teacher trainers are recommended to familiarize the teachers with the philosophy of World Englishes and its implications in second language teaching. Teachers must be conscious of the consequences of adopting the World English philosophy and the damage they may inflict on learners. Learners spend lots of time to acquire a native-like accent, while they

never have the chance to speak with a native speaker. Moreover, imitation can lead to deculturation, making learners keep distance from their home culture. This, in turn, may lead to a crisis in identity (Pishghadam, Kamyabi, 2008). Materials developers and syllabus designers are advised to provide students with occasional exposure to different varieties of English so that the learners might change their negative attitudes toward the so called non-standard varieties of English. Mastery of native-like accent should not be highlighted in the textbooks.

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The Analysis of ESP Textbooks in the Light of Halliday`s Systemic Functional Grammar

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Abstract

The major aim of this study was to find out whether there was any significant difference between types of verbs and the textbooks used in different fields of study in the light of Halliday's Systemic Functional Grammar model (1994). 90 ESP texts were chosen from different fields of study, 30 from engineering, 30 from medical sciences, and 30 from social sciences. Based on the guidelines laid down by Halliday on Experiential Metafunction (in which verbs are classified into six types: material, mental, relational, behavioral, verbal, and existential) the texts were analyzed and the frequency of each type of verb was computed. After applying Chi-Square to the data, it was found that different fields of study employ different types of verbs. The results demonstrated that in engineering texts material verbs, in social sciences texts mental, relational, and verbal verbs, and in medical sciences texts behavioral verbs are more prevalent. Finally, it was recommended that ESP teachers, materials developers and learners take the differences into account while teaching, designing textbooks or learning.

Keywords: ESP-Textbooks-Functional Grammar-Halliday

1. Introduction

One of the major aims of ESP is to meet the learners' needs in different fields of study. ESP scholars try hard to unravel the mysteries of language and learning from different perspectives (Hutchinson & Waters, 1987). One of the ways, based on which we can shed more light on the nature of language and learning is to apply a model to the ESP texts. For instance, some have applied Bakhtin`s model (Ball, 2004) or multiple intelligences, emotional and meditational models (Pishghadam, 2008) to different domains and texts. The author believes that one of the models which can help us to demystify the conundrums of language and learning is functional grammar. Undoubtedly, one of the most important schools of thought in linguistics which have been given late attention is functional linguistics. Unlike generative grammar which focuses on form, syntax, and decontextualized language, functional grammar`s major concern is with meaning, discourse, and context. In functional grammar, language is considered to be a system of choices and the linguist is required to investigate what the range of relevant choices are (Chmosky, 1972, 1975, 1988; Halliday, 1994, Givon, 1990, 1995).

Christie (1991, pp. 106-107) provides the following features for the functional grammar:

1. It is based on the notion of options –Grammar is considered to be a set of choices. This means that it presents grammar to teachers and students as a set of tools they can use rather than a set of rules about what not to do.

2. It looks at the way in which grammar is used to construct texts in their context of use - it is concerned in other words with real language not just with the made up examples of language that can be found in many language tests, exercises, work sheets or traditional grammar books. Its application is not restricted to the analysis of isolated sentences - it explains the way in which sentences are structured to construct whole texts such as stories, essays and reports which students learn to read and write in school.

3. It deals with the way in which grammar is structured to make meaning. Since it is concerned with meaning, it can be related directly to the concerns of teachers and students in all subject areas.

In general, functional grammar deals with the way that the different kinds of meaning that contribute to grammatical structure are comprehensively addressed. It deals with resources for

- analyzing experience - what is going on,
- analyzing interaction - who is communicating with whom
- analyzing the ways in which messages are constructed

Therefore, functional grammar seems to be a good model, based on which we can do research into the nature of language. One of the areas where functional grammar has had an immediate impact is the Teaching English as a Foreign Language. It can help to decide what language to teach; it can provide the basis for educational decisions about what universities, doctors, or business managers need to know about successful communication in their fields. Moreover, it can be employed in the materials development, especially ESP textbooks. It is possible to make the ESP courses more relevant to the learners' needs by producing a syllabus which gives high priority to the language structures students meet in their science studies and in turn gives low priority to the structures they less meet (Hutchinson & Waters, 1987, Thompson, 1996).

Functional grammar has different models, the major ones are: Role and Reference grammar (Foley & Van Valin, 1984), Emergent Grammar (1987), Systemic Functional Grammar (Halliday, 1976, 1994). These models vary in the attention they give to forms and functions of language. It seems that the model proposed by Halliday (1994) is more practical in analyzing any language from the functional perspective. It helps us to understand more fully the theoretical issues of how language itself is structured; it expressly does this in a way which encourages the wider practical issues relating to the uses that we make of language. Systemic grammar has the great advantage that it is there ready for use by analysts whose main focus may be on different aspects such as the text structure of different reading materials (Dabir Moghadam, 1999, 2004).

2. Halliday `s Systemic Functional Grammar

Functional grammar was developed by Halliday in the 1960s. As part of a semiotic system, it focuses on systemic relations. Systemic refers to network of relations and options within a language. Unlike Chomsky who focuses on syntagmatic relations of language, analyzing in a horizontal order, Halliday regards paradigmatic relations as the major part of his studies, to him vertical analysis of language is given high priority.

Halliday (1973, 2003) outlined seven functions of language with regard to grammar used by children:

- The instrumental function serves to manipulate the environment, to cause certain events to happen.
- The regulatory function of language is the control of events.
- The representational function is the use of language to make statements, convey facts and knowledge, explain, or report to represent reality as one sees it.
- The interactional function of language serves to ensure social maintenance.
- The personal function is to express emotions, personality, and "gut-level" reactions.
- The heuristic function used to acquire knowledge, to learn about the environment.
- The imaginative function serves to create imaginary systems or ideas.

Halliday (1978) has made a distinction between two macrofunctions: Pragmatic and Mathetic. The former has a doing function, and requires a response from the person addressed, but the latter requires no response and serves what we may interpret as a learning function.

Later, Halliday (1994) has elaborated on three types of metafunctions: Interpersonal, textual, and experiential. According to him, written and spoken language can be examined with respect to these metafunctions. The interpersonal metafunction relates to a text's aspects of tenor or interactivity. Like field, tenor comprises three smaller areas: the speaker/writer persona, social distance, and relative social status. Social distance and relative social status are applicable only to spoken texts. The textual metafunction relates to mode; the internal organization and communicative nature of a text. This comprises textual interactivity, spontaneity and communicative distance. Experiential metafunction refers to our experience of the world, including the world in our minds to describe events, states and the entities involved in.

Halliday believes that all types of processes (verbs) can be classified into six groups: three principal types (material, mental, and relational) and three subsidiary types (behavioral, verbal, and existential). Material processes are

processes of 'doing'. They express the notion that some entity 'does' something and refer to the external world (e.g. going, playing, cooking...). Mental processes are processes of 'sensing'. They refer to the internal world of the mind (e.g. liking, wanting, thinking...). Relational processes are processes of 'being'. They express the relation which is set up between separate entities (e.g. being, having, showing...). Behavioral processes share the characteristics of material and mental processes (e.g. crying, laughing, breathing...).

Verbal processes share the characteristics of mental and relational processes (e.g. repeating, telling, saying...). Existential processes share the characteristics of relational and material processes (e.g. existing, taking place, occurring...). Halliday believes that there is no priority of one kind of process over another; they form a circle not a line.

In fact, this model is explicitly structured as a metalanguage and thus it has the capacity to focus on the structural elements of subject specific literacies. Not only can this metalanguage hold opportunities for comprehending grammatical structures of texts, but also as a shared communication that can be used to describe language. It seems that the model proposed by Halliday has the capacity to shed more light on genre analysis of ESP textbooks. Therefore, this study intends to investigate whether there is any relationship between types of verbs and ESP textbooks in different fields of study in the light of this theory.

3. Methodology

90 ESP texts were selected from three broad fields of study: 30 from engineering (Computer, Electronic, Mechanic and agriculture), 30 from medicine (Dentistry, Pharmacology and General medical sciences) and 30 from social sciences (Management, History, Philosophy and Economy). To better analyze the language, the researcher classified all fields of study into these three broad ones. Great care was taken to select texts with approximately 350 words to take uniformity into consideration. All of the texts were analyzed according to Halliday's systemic grammar (1994). The frequency of each type of verb was computed (repeated verbs were also taken into account). Then Chi-square was run to see whether is any significant difference between types of verbs and the fields of study.

4. Results

To find out whether there is any significant difference between types of verbs and the fields of study, the author applied Chi-square for all types of verbs. Table 1 shows that there is a significant difference ($X = 112.09$, $p < .05$) between types of verbs and the fields of study.

Table 1: Results of Chi-square for all six types of verbs and three fields of study

| Statistic | X | df | P |
|------------------|----------|-----------|----------|
| Chi square | 112.09 | 10 | .000 |

To locate the areas of differences, frequencies and expected frequencies were computed. As Table 2 and 3 show engineering texts have the largest portion of material verbs (603) which are more often than expected (502). The second, third, fifth rows represent that social sciences texts have more mental (111), relational (360), and verbal (70) verbs than expected (64, 318, 60), respectively. The fourth row illustrates that the medicine texts have more behavioral verbs (6) than expected (3). The sixth row also shows that the existential verbs (15 and 18) are more than expected (14 and 15) in the engineering and social sciences texts.

As Table 3 exhibits behavioral verbs have the smallest proportion of verbs (49%) and material and relational verbs constitute the largest proportion of verbs (845). Besides, it is evident that medicine texts have fewer verbs (716) than other two fields of study, engineering (950) and social (995).

Table 2. Summary of frequencies for all variables

| Variables | Medicine | Engineering | Social sciences | Totals |
|------------------|-----------------|--------------------|------------------------|---------------|
| Material | 372 | 603 | 432 | 1407 |
| Mental | 54 | 21 | 111 | 186 |
| Relational | 231 | 261 | 360 | 852 |
| Behavioral | 6 | 3 | 4 | 13 |
| Verbal | 45 | 47 | 70 | 162 |
| Existential | 8 | 15 | 18 | 41 |
| Total | 716 | 950 | 995 | 2661 |

Table 3. Summary of expected frequencies for all variables

| Variables | Medicine | Engineering | Social sciences | Totals |
|------------------|-----------------|--------------------|------------------------|---------------|
| Material | 378.5 | 502.3 | 526.1 | 1407 |
| Mental | 50 | 66.4 | 69.5 | 186 |
| Relational | 229.2 | 304.1 | 318.5 | 852 |
| Behavioral | 3.4 | 4.6 | 4.8 | 13 |
| Verbal | 43.5 | 57.8 | 60.5 | 162 |
| Existential | 11 | 14.6 | 15.3 | 41 |
| Total | 716 | 950 | 995 | 2661 |

5. Discussion

The major aim of this study was to find out whether there is any significant difference between types of verbs proposed by Halliday (1994) and texts utilized in different fields of study. The results of Chi-square demonstrated that there is a significant difference between types of verbs and texts utilized in different fields of study. As the results show verbs in different fields of study have different loading. It means that some types of verbs are employed more than other in different fields of study.

The results show that the engineering texts have more material verbs than the social sciences and medicine texts. It seems to be quite logical due to the nature

of engineering, which deals with material world. Moreover, it was found that the social sciences texts have more mental, relational, and verbal verbs than the two other fields of study. Close scrutiny of the verbs show that the findings are more compatible with the nature of the social sciences which are generally mental and verbal. It was also found that the medicine texts have more behavioral verbs, though not much high, than other two fields of study and existential verbs were more frequent in engineering and social sciences texts. Besides, it is clear that in the medicine texts verbs are employed less than the other two fields of study.

The findings of this study imply that ESP teachers must pay more attention to the common types of verbs in the class, trying to make students more familiar with them. Moreover, ESP materials developers are expected to design their materials based on the findings of this study. It means that they can produce exercises which are related to the common types of verbs in the related field of study. This doesn't imply that other types of verbs must be ignored; but it means those verbs must be given more priority. Based on the findings of this study, the learners are also recommended to take these issues into account, trying to equip themselves with the related verbs in their own field of study.

As is clear from any scientific research, nothing can be self evident unless verified by observation or experimentation. To do any type of observation or experiment, one may face with some limitations and problems. This study could have come to somewhat more different results than it did, if it were not confronted with the following limitations. First, because the study focused on 90 texts, the obtained findings cannot be safely generalized to other texts. Second, the texts were short, containing 350 words. Third, The texts were selected based on the researcher`s accessibility, random selection of texts may lead to different results. And finally, other results would be obtained if different classifications of fields of study were done.

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Reaching and teaching marginalised children in Malawi and Lesotho

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Abstract

The right of a child to education is being eroded in many high HIV-prevalence communities in sub-Saharan Africa because schools that are challenged to meet the educational/emotional needs of vulnerable students are not yet reaching out to those who cannot attend school regularly (Bennell, 2005, Pridmore and Yates 2006). This paper reports on work in progress on a study that seeks to increase educational access and achievement for these vulnerable students through using self-study learner-guides to complement conventional schooling and building circles of support around them. In 2009, the intervention was implemented in 20 intervention and 20 control schools in Malawi and also in Lesotho, and evaluated in a randomised controlled trial. Preliminary findings from the evaluation in Malawi show that there was an overall impact of the Project intervention on reducing drop out in SOFIE schools. This suggests that more flexible models of schooling can increase the efficiency of education systems and assist governments in high HIV- prevalence countries to reach their Millennium Development Goals for Education.

Keywords: Marginalised children - Educational access and achievement – Open distance and flexible learning- Malawi and Lesotho.

1. Introduction

Access to education, which is at the heart of development, has been hard hit by the impact of AIDS in countries such as Lesotho and Malawi which are at the epicentre of the pandemic in sub-Saharan Africa. Despite efforts to strengthen education systems there is increasing evidence that not enough is yet being done (Kendall and O'Gara, 2007, Bennell 2005). Large numbers of orphans and other vulnerable children who are unable to attend school regularly are at risk of dropping out because schools that scarcely meet the needs of the children who can walk in the door are unlikely to reach out to those who cannot. (Pridmore and Yates, 2005). In these countries the need for governments to take effective action to protect the rights of vulnerable children to schooling is slowly being recognised:

As deaths from HIV and AIDS cause the number of orphaned children to increase drastically, action must be taken to protect their right to schooling and education. It will, therefore be necessary to create alternative pathways to learning that meet needs and requirements of these children. (2005, Government of Malawi, Ministry of Education.)

This paper reports on work in progress on a research study called the SOFIE Project which aims to create alternative pathways to learning by strengthening open and flexible delivery of the curriculum and providing support for learning and for life, in the two project countries, Malawi and Lesotho.

In this paper more open learning refers to the removal or reduction of the many barriers that can prevent learning, including institutional or curricular inflexibility and the availability of education at very restricted locations and/or times (Rumble 1989). Distance learning refers to what Perraton (1982) describes as an 'educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner' (p.10). Flexible learning refers to the increased autonomy, independence and control a learner has over their learning programme as a result of the relative openness and the ability of the programme design to overcome distance and separation (geographic, psychological, pedagogical, economic and social) and to provide appropriate structure and support to maintain and enhance learning.

The study was carried out from 2007-2010 by six researchers working together as a team directed by Dr. Pat Pridmore, (from the Institute of Education, University of London) in collaboration with her colleague Mr. Chris Yates who developed the self-study learner guides. The case studies were carried out and the intervention implemented and evaluated by Mrs. Kate Jere (formerly Moleni)(the co-researcher in Malawi from the Centre for Educational Research and Training, University of Malawi) and Dr. Thabiso Nyabanyaba (the co-researcher in Lesotho from the Institute of Education, National University of Lesotho). Dr. Ephraim Mhalanga (from the South African Institute for Distance Education) provided expertise on open, distance and flexible learning initiatives in the African Region and Dr. Matthew Jukes (from the Graduate School of Education at Harvard University in the USA) provided statistical support for evaluating the intervention. The study was funded by the UK Government Department for International Development (DFID) and the UK Economics and Social Research Council (ESRC).

The central question guiding this study is: To what extent can the barriers to educational access and achievement found in high HIV prevalence communities be overcome using more open, distance and flexible models of learning and support as a complement to conventional schooling?

2. Methodology

2.1 Overall approach and methods of data collection

A theory-driven pragmatic combination of methods is increasingly being used in educational research that seeks to impact policy and practice (Creswell 2003) A mixed methods approach was chosen in this study because there was a need to identify the contextual factors influencing educational access and attainment, to measure the impact of the intervention on access and attainment and to understand the process by which any change had taken place.

A four-stage methodology was used:

Stage 1: Situational analysis: Five desk studies were undertaken by team members to identify factors influencing access to schooling and attainment in sub-Saharan Africa, to describe current educational interventions to increase educational access and attainment and to analyse the policy environment for open, distance and flexible models of learning and support.

Stage 2 Case studies: Four schools situated in contrasting communities severely affected by HIV were selected in each project country (as described below) and case studies developed to identify factors influencing access to schooling at the household level and at the school level. Data to inform the case studies were collected using participatory activities with young people and semi-structured interviews with key informants.

Stage 3 The intervention: The findings from stage 1 and stage 2 of the study were used to develop an intervention package to deliver the curriculum in a more open and flexible way to vulnerable children at risk of grade repetition or drop-out and to build a circle of support around these children. After wide consultation, the intervention package was adapted to each country context and trialed with grade 5 students in 20 primary schools in Malawi and with grade 9 (Class B) students in 20 secondary schools in Lesotho during the 2009 school year. These grade levels were selected so that students would have adequate literacy and numeracy to use the self-study learner guides and because there were high levels of student drop-out in these grades. Only children who were identified by the class teacher and the school management committee as being vulnerable to grade repetition or school drop-out were enrolled onto the intervention programme. In Lesotho these students were double orphans. In Malawi vulnerability was based on orphanhood, socio-economic status and school attendance rates.

2.2 Sampling frame

Stage 1: In each project country, two study sites were selected in rural areas, where student drop-out was higher than urban areas, using the following criteria: high HIV prevalence rates, high student dropout rates, contrasting socio-cultural contexts and low levels of donor intervention.

In Malawi these criteria were used to select the study sites of Phalombe District and the Territorial Authority of M'mbwela in Mzimba South District. Within these study sites the sampling frame included all government primary schools within 10km of a secondary school (excluding junior primary schools). In Lesotho, these criteria were used in combination with the four geo-ecological zones in the country to select the two study sites in high altitude areas (Mount Moorosi in the Senqu River Valley area and Mphaki in the Mountain area) and 2 in low-altitude areas (Berea in the Lowlands area and Pitseng in the Foorhills area). In each of these two study sites 10 secondary schools were selected that were in high HIV-prevalence areas with high rates of school drop-out and repetition. Each of the 20 intervention schools was matched to a control school according to the

location (geo-ecological zone), performance in the most recent school leaving examination results and approximate enrolment figures.

Stage 2: Twenty schools in each of the two study sites were then selected by ranking the schools in quintiles according to their school performance in the Primary School Leaving Certificate results and two matched pairs from each quintile were randomly assigned to either the intervention or control group.

Stage 3: In each project country two case study schools were then selected from each of the two study sites using the following criteria: high HIV-prevalence, high student drop-out rates and presence of a community based organisation (CBO) willing to collaborate. Within each case study school vulnerable children who were at risk of grade repetition or school drop-out or who had recently dropped-out were identified through discussions with teachers, community leaders and local CBO workers. Children from households affected by HIV and AIDS were included in the sample as a sub-group of a wider sample of orphans and other vulnerable children. Children in the sample were invited to attend a workshop, where data were generated using participatory activities. Data were also collected through semi-structured interviews with key informants.

Stage 4: After the intervention a group of 'vulnerable' children were identified in the control schools who were similar to those who were recruited onto the intervention programme. This could not be done before the implementation of the intervention because it would have been unethical to identify these children and then not to intervene.

2.3 Implementing and evaluating the intervention package

In each intervention school vulnerable children who were at risk of grade repetition or school drop-out were identified by the class teacher and school management committee and recruited onto the intervention.

To inform the impact evaluation 'before and after' Maths and English test scores were collected in intervention and control schools. Data were also collected on student attendance and drop-out rates. Qualitative data were also collected to understand the process by which any change had taken place. These data were collected through observation of face-to-face teaching and learning, analysis of student responses to the distance learning materials and activities, semi-structured interviews with students and teachers and analysis of teacher's diaries.

The data sets are currently being analysed to answer the following evaluation questions:

Q1 Did the intervention work? (Impact analysis)

The data are being analysed statistically to find out whether there was any difference in outcomes (drop-out, promotion and achievement) between the vulnerable children in the intervention group compared with a similar group of children in the control group. In Lesotho the students in the intervention group were all double orphans. In Malawi the students in the intervention group were

vulnerable children based on orphanhood, socio-economic status and school attendance rates.

Q2 If so – For whom did it work ? (Sub-group analysis)

This analysis is seeking to find out whether any impact measured is greater for girls or boys and whether it is dependent on factors such as school size, class size, socio-economic status, low baseline achievement, school feeding programmes, ethnicity (= district), school quality (language, teacher qualifications/experience and support of vulnerable children).

Q3 Why did it work? (Process Analysis)

This analysis is seeking to find out what caused the impact, for example the learning materials provided in the 'School in the Bag', the buddy system, the learning materials provided in the 'School in the Box', the SOFIE club or the school-management committee of the training provided.

3. Findings

3.1 Factors influencing access to schooling and to attainment in high HIV prevalence areas

The desk study by Pridmore (2008) revealed the highly complex and context-specific nature of the impact of HIV and AIDS on schooling, in situations governed by poverty. At the household level factors that disrupt the schooling of vulnerable children in heavily impacted communities included: shocks from malnutrition and infection; constantly changing household organisation and child migration; increased poverty and demand for child labour; family skepticism about the value of schooling and intra-household discrimination against orphans; trauma, stress and child abuse; unplanned pregnancy and loss of social cohesion. This desk study also identified a range of interventions that either provided HIV-affected children with material support for living or distance learning to increase access to education. There were no interventions that combined both approaches.

The findings from the case studies carried out in Malawi by Jere (see Moleni 2009) and in Lesotho by Nyabanyaba (2009) confirmed that at the household level schooling was being disrupted by children (especially girls) being required to provide care for chronically-ill parents and other relatives, by bereavement and anxiety, and lack of basic necessities. A girl in Lesotho explained that:

"It is not easy for a girl to go to school with a torn uniform or shoes. Boys can go but for girls it's too embarrassing. You cannot concentrate in class and feel others are looking at you and laughing at you."

Lack of proper care and encouragement was key to school drop-out for orphans. In Malawi, a boy, who was head of household explained that 'When mother died ...there was nobody to force us to go to school since we were all children, this is when I dropped out'. Another boy who was head of household said 'There was

no one who encouraged us ...if there were people who could encourage us we would have continued with school’.

In Lesotho many parents did not value the schooling provided because they perceived it to be of poor quality. A female informant explained that: ‘Many families in this community do not take education as their first priority..... their parents do not prefer this school because of its poor performance’. In Lesotho it can also be difficult for orphans to get the secondary school bursaries they are entitled to, a key informant claimed that : ‘Support groups and the local councils pocket assistance meant for the orphans ... or they ask for a bribe to write a letter (saying) that he/she is an orphan needing assistance’.

At the school level key factors influencing school access and attainment identified by the desk study (Pridmore 2008) were lack of support for the special educational needs of vulnerable children (especially psychosocial support and monitoring of progress); gender-based violence, stigma and discrimination; and the reduced supply and quality of education.

Evidence from the case studies confirmed the presence of these factors. In the study schools there was no system in place to identify vulnerable children on entry and monitor their attendance and progress through the school. Nor was there any systematic attempt to reach out to children who could not attend school regularly with support for their psychosocial and learning needs so that they could catch up with their peers after being absent and keep up during periods of emotional distress.

There were also problems of stigmatisation, a teacher in Lesotho explained that: ‘Other children do not mix well with these [orphan] children (and) even teachers need support on how to handle these children’. Some teachers lacked empathy and they were commonly reported to have excluded vulnerable children from school:

My grandparent was sick so I was not going to school. (My teacher said) “You have missed lessons for a whole week so it is better for you to come back next term”. (Out-of school orphan, Malawi)

Whenever they (the siblings) went to school they were being sent back because of (no) uniform and I had no money to buy it They just started herding animals since each time they went to school they would be sent back. (out-of-school boy, head of household, Malawi)

Abuse of students and low motivation of teachers were also reported to be a cause of school drop-out; a teacher in Lesotho reported that: ‘There was a case of a girl who dropped out of school because she had lost her parents and was being abused by her aunt. We can’t deal with such cases ..., we’re too busy and underpaid’.

In Lesotho boys were also reported to drop-out of school to prepare for their initiation ceremonies.

3.2 The intervention package

As mentioned above, these findings from the desk studies and case studies were used to develop an intervention package to deliver a more open and flexible model of schooling and support that could meet the needs of vulnerable children. Other factors that were taken into account in developing the package were the lack of electricity in some schools, the limited capacity of schools and teachers to intervene and the need for the intervention to be low-cost.

Only students who were identified by the class teacher and school management committee as being at risk of grade repetition or school drop-out were recruited onto the intervention programme. Class teachers kept an 'at-risk' register of these vulnerable students and gave each one a 'School-in-a-Bag'. This bag contained self-study learner guides linked to the national curriculum for maths and English, pens and notebooks. The class teacher also gave each of these students a school buddy to provide support and encouragement and a link with the class teacher when the vulnerable student was not able to attend school. Each vulnerable student was also invited to attend weekly meetings of the SOFIE Club run by a volunteer youth leader.

The intervention package also included support and capacity building for headteachers, class-teachers, members of the school management committee and volunteer youth club leaders. Training was given on maintaining the 'at-risk' register, on monitoring and follow-up of student attendance and achievement, on guidance and counselling, on promoting inclusiveness, on community support for pupil welfare and on running the SOFIE club. The SOFIE Club leader was provided with a School-in-a-Box containing, text books, self-study learner guides, reading books, pens, notebooks, wind-up radio, and an HIV board-game. In Malawi the club leader was also given a bicycle to carry the School-in-a-Box (which was actually a rucksack) from school to school.

3.3. Evaluation of the intervention

Statistical analysis of the data sets is ongoing in line with the description given in the methodology section. The aim is to assess (i) the overall impact of the intervention on retention, promotion and attainment for student recruited onto the intervention compared with a similar group in the the control schools (ii) the implementation fidelity (ie the degree to which the intervention was implemented as planned) and (ii) the process by which any impact has taken place.

No results are yet available from Lesotho. Preliminary results from Malawi, show that the intervention has led to reduced absenteeism and a reduction in student drop-out rates in the intervention compared to control schools. Process analysis is ongoing but the findings suggest that the training made an important contribution to the impact of the intervention.

Analysis of qualitative data suggest that the intervention has led to more capable, confident learners, an improved reading culture and more independent learning. Students have also benefited from stronger social networks leading to improved motivation and higher self-esteem.

Full details of these analyses and further analyses of the data sets will be available on the project website from August 2010 (<http://sofie.ioe.ac.uk>)

4. Discussion

It is not possible to do justice to the wealth of data generated by the SOFIE Project in a short conference paper but the findings reported here confirm that in high HIV prevalence areas of Malawi and Lesotho the schooling of vulnerable students is being disrupted by factors operating at both the school and family levels. Moreover, in carrying on 'business as usual' schools are failing to meet the special educational needs of vulnerable children who cannot attend school regularly. The findings also show that a low-cost educational intervention to build circles of support around vulnerable students and to use self-study learner-guides to complement conventional schooling can lead to an overall reduction in school drop-out.

These findings have important implications for policy development, practice and professional capacity building in the project countries where, as Yates (2008) has pointed out, there is an urgent need for policy to harness conventional and distance forms of schooling in order to integrate and include marginalised children. The time is now right to address this policy gap because in Malawi the Ministry of Education, Science and Technology is actively seeking ways to support children to 'catch-up and keep up', and in Lesotho, the Ministry of Education is indicating a turn to alternative, more open and flexible modes of curriculum delivery.

To help maximise the impact of the study findings the SOFIE research team has developed a four-pronged strategy. Firstly, the evidence for action will be packaged as policy briefings oriented towards government priorities and using these briefings to advocate for wider uptake of the SOFIE intervention model. Secondly, further analyses of the data sets will be carried out to determine the potential economic impact of implementing the intervention on a large scale. Thirdly, the capacity of teacher educators and their students will be strengthened to develop and pilot self-study learner guides in core curriculum subjects for senior primary school grades. Fourthly, there will be wider dissemination of the findings through journal articles, papers and a practitioner-oriented book.

Through maximising the impact of the study findings on policy, practice and professional development it is hoped that governments struggling to reach their Millennium Goals for Education may be able to develop alternative pathways to learning that use open and flexible learning to complement traditional schooling. In this way education systems may be more effective in reaching out to the children who are marginalised and excluded because they cannot attend school regularly.

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Identité d'établissement et scolarité : étude comparative entre des élèves de collèges privés et publics

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Résumé

L'existence d'effets, positifs ou négatifs, liés à une scolarisation dans l'un des secteurs d'enseignement conduit à voir dans les inégalités scolaires le poids de l'origine sociale, mais aussi le fruit de différences entre contextes de scolarisation. Dans le territoire breton de forte implantation du secteur privé et d'« excellence scolaire », se pose la question des conditions de l'efficacité scolaire. Au-delà de la composition sociale des établissements scolaires, la recherche porte sur les liens entre leur identité organisationnelle et les scolarités de collégiens. À partir de l'étude de quatre établissements bretons, la méthodologie d'enquête est essentiellement qualitative par une approche ethnographique auquel s'ajoute un complément quantitatif. La lecture des secteurs d'enseignement au prisme de l'identité d'établissement considère le collège comme le résultat d'une combinaison construite de composantes, colorant la scolarité des élèves, car ces derniers s'approprieraient en partie la définition identitaire de leur établissement.

Mots clés : Collège – Secteur d'enseignement – Effet établissement – Elèves

1. Introduction

En France, depuis une cinquantaine d'années, les transformations institutionnelles du secteur privé et l'évolution de ses fonctions ont entraîné un rapprochement avec le secteur public. Hier et de plus en plus aujourd'hui, les établissements privés qui relèvent à 95% de la confession catholique tendent à être banalisés dans le paysage scolaire. Le recours au dit « zapping scolaire » ne cesse en effet d'augmenter : environ 40 % des élèves d'une génération parvenus en terminale ont fréquenté au moins une année une école privée. Cet aspect de banalisation de l'enseignement catholique se révèle encore plus prégnant dans les régions de forte implantation du secteur privé d'enseignement, notamment en Bretagne, où plus de 40 % des élèves du second degré y sont scolarisés. La constitution d'un ensemble scolaire sectorisé conduit à nous questionner sur les variables de différenciation des établissements privés et publics, d'autant plus que l'efficacité comparée des deux secteurs d'enseignement soulève des résultats de recherche dissonants.

2. Le secteur privé : objet vif, peu et diversement étudié

Ce réseau d'enseignement n'a fait l'objet en France que de rares études aux orientations disciplinaires et théoriques diverses. D'une approche historique et

institutionnelle (Tanguy, 1972, Prost, 1982) en passant par une analyse du choix du secteur de scolarisation (Ballion, 1982 ; Langouët & Léger, 1997 ; van Zanten, 2009), des sphères professionnelles des enseignants du privé et du public (Tapernoux, 2001 ; Jaboin, 2003) ou par une comparaison de l'efficacité des deux secteurs, le champ de la connaissance sur le secteur privé d'enseignement est aujourd'hui encore peu développé. Quelques raisons peuvent être avancées. Le privé, en quelque sorte « point aveugle » de la recherche en France, et ses rapports avec le public s'inscrivent au centre de débats historiques et politiques. Les lois scolaires ont toujours dû se positionner par rapport à la place de l'enseignement privé en France. Au cœur de la « querelle scolaire », plus sensible autrefois que de nos jours, subsistant de façon souterraine, l'école privée a été et reste encore un facteur important d'évolution de l'institution scolaire. Le double système d'enseignement qui existe aujourd'hui est paradoxalement né avec les lois de la III^{ème} République (1882, 1886, 1889) car, si ces dernières instaurent l'école publique, gratuite et obligatoire, elles ne mettent pas pour autant fin au système scolaire antérieur et permettent le maintien du réseau privé. La « question scolaire », c'est-à-dire les projets d'aide financière aux écoles libres, rythme la vie politique française. La loi Debré du 31 décembre 1959 institue notamment des contrats passés entre l'État et les établissements privés du premier et du second degré qui le souhaitent : le contrat simple et d'association. Le secteur privé regroupe actuellement pour l'essentiel des établissements sous contrat d'association, ce qui les associe à l'exécution d'un service public. Comme l'indique Ferdinand Bellengier (2004, p. 34), « le régime des contrats fait maintenant partie du paysage dans le système éducatif français. Construction originale, il a voulu préserver la spécificité des établissements privés, en leur permettant en particulier de conserver leur "caractère propre", mais il a aussi contribué à rapprocher sensiblement les établissements publics et les établissements privés au fil des années ». Cette modification du statut de l'école privée s'accompagne d'un changement de ses fonctions (Prost, 1982). La France tient finalement à sa « dualité scolaire » (Tanguy, 1972), suscitant des débats et manifestations passionnés, par exemple en 1984 dans un mouvement populaire de défense de l'enseignement libre.

Au niveau scientifique, le double système de scolarisation fait aussi l'objet de questionnements, notamment sur l'efficacité comparée des deux secteurs avec une interrogation qui guide ceux-là : le lien entre origine sociale et réussite scolaire joue-t-il avec la même force dans les deux secteurs ? Dans les années 1980, les premières études françaises consacrées à la question des différences de réussite scolaire selon le secteur de scolarisation montrent un bénéfice des élèves des classes populaires à être scolarisés dans le réseau privé et des écarts sociaux de réussite moindres entre les enfants de cadres et les enfants d'ouvriers, d'employés « fidèles » au secteur privé. A partir d'une étude d'un panel de collégiens des années 1970, il apparaît qu'au-delà du recrutement social, la fréquentation de l'école privée est associée, aux différents stades de la scolarité, à de meilleures trajectoires scolaires : les élèves du privé atteignent plus souvent et plus rapidement le niveau de la quatrième ou de la seconde (Langouët & Léger, 1994). La problématique de socialisation scolaire des jeunes d'origine populaire en collège privé est alors au cœur des questionnements autour du succès des établissements privés (Ben-Ayed, 1998). Cependant, les réussites différentielles qui sont à l'avantage des classes modestes dans les écoles privées sont fortement atténuées, voire contrecarrées, par des recherches

plus récentes introduisant d'autres variables de contrôle (Tavan, 2001 ; Caille, 2004). De plus, les conclusions sont distinctes selon les moments du cursus et les zones d'implantation du secteur privé. Les questionnements sont donc aussi méthodologiques avec la mise en exergue de variables cachées, exigeant de travailler avec des données relatives aux inputs éducatifs plus fournies. Mathieu Valdenaire (2004) évoque des résultats affectés par des biais tenant aux caractéristiques inobservables des élèves : « On peut rendre compte d'une partie des différences entre les élèves du privé et du public, mais toutes ces différences, notamment celles pertinentes pour expliquer la réussite scolaire, ne sont pas observables, ou non synthétisables statistiquement » (p. 9). En définitive, que les effets soient positifs ou négatifs, les écarts de réussite selon le secteur d'enseignement méritent d'être questionnés, car le contrôle des caractéristiques sociodémographiques ne parvient pas toujours à annuler l'influence spécifique du privé. « Ces écarts ne peuvent pas tenir seulement à des effets de composition non pris en compte, mais relèvent bien d'"effets de secteur" » (Tavan, 2001, p. 100). La quasi-totalité des travaux portant sur la comparaison des deux systèmes de scolarisation se place au niveau macrosociologique, et montre les limites de la méthodologie quantitative à comparer les deux secteurs, d'où les enjeux de la focale microsociologique de cette recherche doctorale visant à comparer les modes organisationnels propres à chaque secteur, en dépassant le cadre strictement individuel des comportements pour prendre en compte leurs interactions et le cadre institutionnel dans lequel ils se déroulent.

3. Du recrutement social à l'identité organisationnelle

3.1. L'établissement et son fonctionnement : combinaison construite de composantes

Les réussites différenciées entre les élèves inscrits dans les collèges privés et ceux scolarisés dans le secteur public interrogent, particulièrement au niveau de l'impact du contexte de scolarisation (Duru-Bellat & Mingat, 1988). Si le poids de l'origine sociale est déterminant dans la construction des inégalités de parcours et de réussite scolaires, il ne suffit pas. Le type d'établissement joue un rôle non négligeable surtout pour les élèves les plus justes scolairement. Aujourd'hui, on ne peut plus considérer le cadre scolaire comme homogène ou sans effets sur le déroulement des cursus. A cet égard, les observations empiriques sont incontournables, car pour comprendre les scolarités, nous sommes face à une importance grandissante de l'expérience au quotidien de l'école que nous supposons liée en partie à une identité organisationnelle (Draelants, 2007). La recherche insiste ainsi sur le rapport des élèves à l'établissement et ses résonances, marquées par les caractéristiques sociodémographiques des élèves, leurs performances et trajectoires scolaires, aspirations, jugements de l'établissement fréquenté, les interactions entre pairs et avec les différents acteurs du collège. Au-delà de la composition sociale des établissements scolaires, dans quelle mesure leur identité organisationnelle joue un rôle dans la scolarité des élèves (expérience, valeur et trajectoire scolaires) ? Cette lecture des secteurs d'enseignement au prisme de l'identité d'établissement envisage le collège comme le résultat d'un travail de construction spécifique (Cousin, 1993).

Chaque espace scolaire implanté dans une zone spécifiée et spécifique a ses règles et ses équilibres propres, avec un univers de discours, de pratiques propres à ses membres, un système interne et externe d'interactions, un style de direction, une implication et mobilisation des acteurs, un projet pédagogique et éducatif, des objectifs et des représentations, des valeurs partagées par ses membres. A partir de là, il produit des effets qui ne peuvent être totalement réduits à ses variables de composition, mais tiennent au fait qu'il est une configuration particulière de variables (Dubet, Cousin, & Guillemet, 1989 ; Grisay, 1993 ; Paty, 1997), et cette combinaison construite de composantes qui va nous permettre de comprendre des trajectoires différentes d'élèves de valeur scolaire et de milieu social comparables. Il s'agit de considérer l'efficacité comme résultante d'un processus de construction, par les acteurs concernés, d'une représentation des objectifs et des effets de leur action commune.

3.2. Enquête microsociologique

À partir de l'analyse de quatre établissements bretons, la méthodologie d'enquête est essentiellement qualitative auquel s'ajoute un complément quantitatif. Pendant l'année scolaire 2008/2009, l'enquête de terrain se déroule dans quatre collèges de tailles différentes, où il s'agit de comparer, par couple, des collèges privés et des collèges publics situés dans une même commune, implantés en milieu rural (commune autour de 2 000 habitants) ou urbain (petite ville d'environ 10 000 habitants), dont la sociologie des élèves montre une surreprésentation des PCS défavorisées (plus de 30 %) au regard de la moyenne académique. L'approche ethnographique des secteurs public et privé d'enseignement en Bretagne se veut porteuse d'horizons nouveaux, avec les règles et enjeux inhérents à l'association de cet objet de recherche et ce choix méthodologique. Comprendre comment deux collèges privés et deux collèges publics de deux communes fonctionnent de l'intérieur requiert l'entrée et l'immersion de l'ethnographe dans des milieux en concurrence (Woods, 1990). La conquête de son espace-temps d'enquête exige l'acquisition d'un ensemble de réflexes qui permet de déceler l'implicite de la vie sociale dans les établissements enquêtés et d'adopter une position, un langage propre à chaque monde. Explorer des constructions locales nécessite par conséquent des ajustements quotidiens de la part du chercheur. Chaque terrain est approprié en tant que lieu, objet et pratique : il ne s'agit pas de se focaliser sur la dualité public/privé, mais sur l'unité éducative et sociale que constitue chaque établissement dans son environnement propre. L'observation directe porte sur des « univers de relations » (Beaud & Weber, 2003, p. 39) qui sont plus spécifiquement étudiés dans deux classes de chacun des collèges. L'enquêteur suit ainsi une classe de sixième et une classe de troisième dans les quatre établissements. Le recueil de données repose sur près de quatre-vingt entretiens avec les acteurs de l'institution scolaire (chefs d'établissement, enseignants, conseillers principaux d'éducation, surveillants, élèves) et des observations dans divers lieux (en classe, dans la cour, au self, à la vie scolaire, l'administration). A ce corpus s'ajoute une trentaine d'interviews avec des parents d'élèves des classes suivies pour comprendre l'image organisationnelle du collège choisi et leurs rôles dans la scolarité de leur enfant. L'orientation du regard du chercheur est localisée, microsociologique et attentive à la subjectivité des acteurs, à leurs langages, places, pratiques sociales, en étant présent dans la situation où elles se

développent et en interrogeant les enquêtés. En fin d'année scolaire, des questionnaires ont été passés aux collégiens et professeurs des quatre écoles. Les réponses permettent d'obtenir une perspective d'ensemble du niveau de contexte choisi qu'est l'établissement, et de l'échelle de comparaison établie qu'est le secteur.

3.3. Perspectives croisées

Loin de considérer les secteurs d'enseignement comme deux entités homogènes, cette démarche comparative souhaite caractériser les ressemblances et différences en fonction des axes d'étude retenus, afin d'apporter notamment une connaissance inédite sur les logiques de fonctionnement d'établissements privés. Il s'agit plus globalement de saisir l'identité d'établissements privé et public, et ses liens avec les scolarités d'élèves. En s'intéressant à toutes les scènes d'un établissement scolaire, le chercheur étudie les places des divers types d'acteurs et la répartition des pouvoirs au sein de chaque collège des deux secteurs. Par exemple, la pluralité des missions des personnels des établissements privés rend l'organisation moins hiérarchique et plus globale. De plus, dans le modèle de la dynamique identitaire organisationnelle (Hatch & Schultz, 2002), l'identité du secteur privé est plus proche du modèle communautaire, en ce sens que le dialogue entre l'image organisationnelle et la culture organisationnelle est porté par les acteurs du collège privé et ses usagers. On peut alors penser que certains jeunes de classe populaire intègrent mieux l'établissement privé, car il existe moins de distorsion entre ce qu'ils vivent à l'école et leur socialisation familiale : des liens facilités entre deux mondes plus proches. La « communauté scolaire », en rapport avec un modèle de mobilisation collective dans l'établissement, relève d'un « idéal diffus » dans le secteur public, alors qu'il est « spontanément développé par l'enseignement privé, dont un des arguments est la supériorité de l'éducation sur l'instruction » (Derouet, 1987, p. 99). A contrario, l'unité éducative et sociale plus forte des collèges privés observés entraînent une crainte chez une partie des élèves de « l'après », du lycée, et le sentiment de ne pas vouloir quitter le collège. Dans le secteur public, les liens entre image et culture sont moins articulés et incorporés : le fonctionnement des collèges publics se révèle plus proche du modèle bureaucratique, mais aussi plus proche d'une ouverture vers l'extérieur, ce qui engendre des élèves plus informés sur les voies possibles après le collège. Il s'avère aussi que l'implantation géographique du collège et ses liens avec l'extérieur entraînent des aspirations plus ou moins élevées des élèves. Le contexte de scolarisation crée alors un environnement particulier qui colore la scolarité des élèves, car ces derniers s'approprieraient en quelque sorte la définition identitaire de leur établissement. Cette appropriation différenciée a en partie des effets sur l'orientation en voie générale, technologique ou en voie professionnelle des élèves de troisième interrogés.

Dans un croisement de regards et de méthodologies, la recherche se centre sur les élèves et leur rapport à l'établissement. Chaque collège se définit par une multitude de dimensions communes aux établissements des deux secteurs mais où chacune a une position particulière. C'est la combinaison de composantes qui peut expliquer les aspects objectifs et subjectifs différenciés des scolarités d'élèves, les conditions de construction des trajectoires scolaires. Le contexte est le cadre de l'action qui est défini et approprié variablement selon les individus

co-présents. La description des quatre sphères comme tremplin de théorisation permet d'établir des liens entre les composantes de chacune d'elles. Dans un dialogue entre théorie et terrain, le chercheur construit un savoir empirique, contextualisé et transversal, qui forme une architecture conceptuelle de décodage des rhétoriques, interactions, pratiques propres aux réseaux d'enseignement.

4. Conclusion

En France, les établissements privés accueillent un collégien sur cinq, mais cette proportion ne rend pas compte de l'ampleur des transferts d'élèves entre public et privé, et de l'offre scolaire locale différenciée. On se doit par conséquent d'enrichir nos connaissances scientifiques sur ce réseau d'enseignement, d'autant plus que les études réalisées amènent à nous demander s'il n'existe pas un effet d'établissement spécifiquement attaché aux collèges privés. Les secteurs d'enseignement se situent entre rapprochement institutionnel et distance identitaire. Dans la continuité des questionnements, décrire et analyser les caractéristiques des contextes de scolarisation de collèges des secteurs privé et public, sous la focale d'une approche qualitative et quantitative, se justifie par la recherche d'une meilleure intelligibilité des phénomènes appréhendés dans leur complexité : chercher dans les mots et les nombres à la fois le particulier et le général, les faits et leur sens.

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The Effectiveness of Brain Based Teaching Approach in Dealing with the Problems of Students' Conceptual Understanding and Learning Motivation towards Physics

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Abstract

Teachers of science based education in Malaysian secondary schools, especially those in the field of Physics, often find their students facing huge difficulties in dealing with conceptual ideas in Physics, resulting thus in a lack of interest towards the subject. The aim of this study was to assess the effectiveness of the Brain Based Teaching Approach (henceforth BBTA) in dealing with the issues of the conceptual understanding of Newtonian Physics of Form Four students in Secondary Science Schools in the state of Kedah, situated in the northern region of Peninsular Malaysia, and also their learning motivation towards the subject of Physics. The BBTA is based on the Brain Based Learning Principles developed by Caine & Caine (1991, 2005), Jensen (1996) and Sousa (1995), where detailed attention is given to seven main steps: (i) Activation, (ii) Clarify the outcome and paint big picture of the lesson, (iii) Making connection, (iv) Doing the learning activity, (v) Demonstrate student understanding, (vi) Review for student recall and retention/Closure, and (vii) Preview the new topic. The effectiveness of the BBTA within the targeted context was then assessed in a quasi-experimental research approach involving 100 Form Four students from two Secondary Science Schools. Data collected using the Test of Newtonian Physics Conceptual Understanding and the Questionnaire of Physics Learning Motivation were then analyzed descriptively and inferentially. The results obtained revealed that the BBTA was in fact exceedingly effective in dealing with the problems aforementioned. It was found that students who received Physics education taught using the BBTA possessed a better conceptual understanding of Newtonian Physics and also a higher learning motivation in the subject of Physics, compared to students who received Physics education taught using conventional teaching methods.

Keywords: Science education - Physics teaching - Brain Based Teaching Approach - conceptual understanding - learning motivation

1. Introduction

In Malaysia, studies have shown that science (especially Physics) is considered as among the most difficult subjects to be understood, and not a subject of interest in school. More students have been found to choose the field of social sciences and humanities rather than science and technology (Indicators of Science and Technology Malaysia, 2004). Apart from that, 32.4% of Malaysians also consider science teaching in educational institutions "too academic" (Report of Public Awareness of Science Research and Technology, 2004). Hence, it would not be too extreme to say that there are still a lot of weaknesses in the process

of science teaching in Malaysian schools. Current instructional methods used are said to have not attracted enough interest to cater to the needs of the majority of the students (Robiah Sidin, 2003). Rote learning approaches, such as memorizing, notes copying, easier topic targeting and predicting, which are exam oriented, accompanied by teacher centered strategy and linear instructions, have been identified as the causing factors for the problems of conceptual understanding and lack of interest towards the science subjects among students. (Sharifah Maimunah Syed Zin & Lewin, 1993; Sulaiman Ngah Razali, Siow, Wong, Lim, Lew & Daniel, 1996; Robiah Sidin, 2003).

At present, to conform to a more complex learning environment, the school education process requires more than what was expected in the past. Latest developments in the field of Neuroscience have shown that in order to ensure the effectiveness of the teaching and learning process, the more significant teaching method would be the Inclusive Approach (Caine & Caine, 1991; Jensen 1996). These developments have contributed to the exploration of brain compatible technique known as Brain Based Teaching Approach.

Brain Based Teaching Approach is a strategy implemented based on the Brain Based Learning Principles developed by Caine & Caine (1991, 2003), Jensen (1996) and Sousa (1995) through related brain research. It was designed in such a way so that the approach will be more compatible to the structure, tendency and optimum functions of the human brain, and to ensure the effectiveness of the individual learning process (Caine & Caine, 1991, 2003; Jensen, 1996; Sousa, 1995). Although all teaching processes essentially are brain based, compared to other methods, the Brain Based Teaching Approach is a strategy specifically created to value the true potential of the brain in a learning process (Caine & Caine, 1991). Unlike traditional methods, this approach is based on the theory that everyone keeps on learning, as long as the human brain is not prohibited from undergoing its routine processes (Caine & Caine, 1991; Jensen, 1996). The assumption is made based on the fact that the human brain is an organ of extremely high potential and that every student is able to learn effectively, if their brain is given the opportunity to function in an optimum manner. Children of all learning styles will benefit from this kind of teaching approach.

The Brain Based Teaching Approach advocates three instructional techniques: Orchestrated Immersion, which creates a learning environment that fully immerses students in many educational experiences; Relaxed Alertness, which eliminates fear in the learners while maintaining highly challenging environments; and, Active Processing, which allows the learner to consolidate and internalize information by actively processing it (Caine & Caine, 1991). The integration of these learning optimum-state elements is believed to be able to fulfil various learning requirements whilst fostering interest among students. Based on these characteristics, the Brain Based Teaching Approach is expected to be a new breakthrough in dealing with the issues related to students' conceptual understanding of Newtonian Physics.

2. Brain Based Learning Principles

According to this theory (Caine & Caine 1991, 2003; Jensen 1996; Sousa 1995), each education should integrate all of these elements:

(a) Relaxed Alertness – emotional climate

- The brain learns best in its optimal state
- The brain's bio-cognitive cycle influences the learning process
- Emotions are critical to the brain's patterning process
- Learning is enhanced by challenge and inhibited by threat.
- Positive climate stimulates brain function
- Appropriate environment, music and aroma excite brain activity

(b) Orchestrated Immersion – instruction

- The brain is unique and is a parallel processor (able to perform several activities at the same time).
- Search for meaning comes through brain patterning process.
- The brain processor works in wholes and parts simultaneously
- Complex and active experiences involving movements stimulate the brain development
- Learning engages the whole physiology

(c) Active Processing – strengthening

- Learning involves both focused attention and peripheral perception
- Learning involves both conscious and unconscious processes
- Learning always takes place in two memory approaches - to retain facts, skills and procedures; and/or making sense of experience
- The brain can easily grasp and remember facts and skills embedded in its memory space

3. Implementation of the Brain Based Teaching Approach

The Brain Based Teaching Approach in this research was generally implemented based on the integration of 'Brain Based Learning Principles' (Caine & Caine, 1991, 2003; Sousa, 1995; Jensen, 1996) through seven brain compatible instructional phases (Sousa, 1995; Smith, 2003): (i) Activation; (ii) Clarification of the outcome and painting the big picture of the lesson; (iii) Making the connection; (iv) Doing the learning activity; (v) Demonstration of student understanding; (vi) Review of student recall and retention / Closure; and (vii) Previewing the new topic. Optimal learning state is the main feature of this approach.

A. Instructional Phase

| PHASE | FEATURES | BRAIN BASED LEARNING PRINCIPLES |
|-------------------|---|---|
| <i>Activation</i> | Activate the memory processor system and student's prior knowledge to stimulate | (i) Brain learns best in its optimal state (ii) Learning is enhanced by challenge and inhibited by |

| | | | |
|---|---|---|--|
| | the transfer process. | (iii) | threat. Brain processor works in wholes and parts simultaneously |
| <i>Clarify the outcomes and paint the big picture</i> | <ul style="list-style-type: none"> - Have the students affirm for themselves personal performance target (Smith, 2003). - Activate the right brain processor prior to the left brain (Sousa, 1995) - Alleviate anxieties over the accessibility and relevance of the material (Smith, 2003; Sousa, 1995). | (i) (ii) | <p>The brain is unique and a parallel processor (able to perform several activities at the same time).</p> <p>Brain processor works in wholes and parts simultaneously</p> |
| <i>Making connection and develop meaning</i> | <ul style="list-style-type: none"> - The stage where the topic or unit of work about to be completed is connected with what has gone before and what is to come (Smith, 2003). - It builds on what the learners already know and understand and helps them assimilate and integrate new information (Caine & Caine, 1991, 2003; Smith, 2003). | (i) (ii) (iii) (iv) | <p>Learning involves both focused attention and peripheral perception</p> <p>Learning involves both conscious and unconscious processes.</p> <p>Learning always takes place in two memory approaches, to retain facts, skills and procedures or making sense of experience</p> <p>Brain can easily grasp and remember facts and skills embedded in its memory space.</p> |
| <i>Doing the learning activity</i> | <ul style="list-style-type: none"> - The stage for digesting, thinking about, reflecting on and making sense of experience utilizing visualization, auditory, kinesthetic in multiple contexts. - Access all of the multiple intelligences (Jensen, 1996; Smith, 2003). | (i) (ii) (iii) (iv) (v) | <p>The brain is unique and a parallel processor</p> <p>The search for meaning comes through brain patterning process.</p> <p>Brain processor works in wholes and parts simultaneously</p> <p>Learning involves both conscious and unconscious processes.</p> <p>Complex and active</p> |

| | | |
|--|--|--|
| | | experience involving movement stimulate brain development |
| | | (vi) Learning engages whole physiology |
| <i>Application and integration / Demonstrate student's understanding</i> | The stage for brain active processing (Caine & Caine, 1991, 2003; Smith, 2003). | (i) The brain is unique and a parallel processor (able to perform several activities at the same time). (ii) Learning always takes place in two memory approaches, to retain facts, skills and procedures or making sense of experience |
| <i>Review for students retention / Closure</i> | The activity stimulates working memory to summarize the lesson (Sousa, 1995) | Learning involves both conscious and unconscious processes. |
| <i>Preview the next topic</i> | The experience helps brain pre-processor and reptilian brain to focus on the new lesson (Sara & Trevor, 1998). | Learning involves both focused attention and peripheral perception |

B. Optimal Learning State

| STRATEGY | | BRAIN BASED LEARNING PRINCIPLES |
|---|----------------------|---|
| Pulse learning episode. Theory (prime time) alternately with learning activity (down time) (Sousa, 1995). | (i) (ii) | Brain learns best in its optimal state Brain bio-cognitive cycle influence learning process |
| The usage of appropriate aroma and music (Jensen, 1996). | (i) (ii) (iii) | Positive climate stimulates brain function Appropriate environment, music and aroma excite brain activity Emotions are critical to brain patterning process |
| Active learning and students centered strategies (Caine & Caine 1991, 2003; Jensen, 1996; Sousa, 1995). | (i) (ii) (iii) | Learning involves both focused attention and peripheral perception Learning involves both conscious and unconscious processes. Learning always takes place in two |

- | | |
|--|--|
| | memory approaches, to retain facts, skills and procedures or making sense of experience |
| | (iv) Brain can easily grasp and remember facts and skills embedded in its memory space. |
| Emotion in learning experience (Caine & Caine, 1991; Jensen, 1996; Sousa, 1995). | (i) Positive climate stimulates brain function Learning is enhanced by challenge and inhibited by threat. |
| | (ii) • |
| Real-life experience (Caine & Caine, 1991; Jensen, 1996; Sousa, 1995). | (i) Learning involves both focused attention and peripheral perception |
| | (ii) Learning involves both conscious and unconscious processes. |
| | (iii) Learning always takes place in two memory approaches, to retain facts, skills and procedures or making sense of experience |
| | (iv) Search for meaning comes through brain patterning process. |
| | (v) Brain processor works in wholes and parts simultaneously |

4. Research Methodology

The aim of this study was to assess the effectiveness of the Brain Based Teaching Approach in dealing with problems related to students' conceptual understanding of Newtonian Physics, and their learning motivation towards the subject of Physics, in the context of Form Four Physics instruction in Malaysian secondary schools. The research was conducted using the design of quasi-experimental approach involving 100 form four students: 50 in an experimental group, and the other 50 in a control group. These students were randomly selected from two equivalent schools to represent the population of form four Science Secondary School students in the northern peninsular Malaysia. The experimental group was then given the Brain Based Teaching Approach while the control group followed the conventional method, in learning the topic of Force and Motion, according to the current Form Four Physics syllabus. Students' conceptual understanding and learning motivation towards Physics were measured before and after the intervention through the Test of Newtonian Physics Conceptual Understanding and Questionnaire of Students Motivation Towards Physics in order to determine the effectiveness of the implemented Brain Based Teaching Approach. Data collected were then analyzed descriptively and inferentially.

5. Findings

Before the intervention, it was found that generally, students from both groups (experimental and control) obtained almost equivalent Physics achievement mean scores in the pre-test administered. The scores were 6.42 for experimental group and 6.52 for control group. However, in a test administered after the intervention, the experimental group was found to obtain a better achievement in Physics compared to the other group. Students from the experimental group obtained a higher mean score than the students from the control group, with scores ranging from 14.48 to 19.62. In addition, it was also found that the gain score for the experimental group was higher than that of the control group. The gain score for the experimental group was 13.20 whereas for control group, the gain was 7.96. The result from the independent sample t-test analysis has shown that there was a significant difference between the scores obtained by students in the experimental group ($M = 19.62$, $SL = 3.827$) and those in the control group ($M = 14.48$, $SL = 3.092$), with $t = -7.387$ and $p=0.000$, $p<0.05$. These findings confirmed that the Brain Based Teaching Approach was more effective in developing students' conceptual understanding as compared to the conventional method. Results obtained are shown in the following tables 1 and 2.

Table 1 Student's mean score, standard deviation and gain score in pre and post test of Newtonian Physics Conceptual Understanding between experimental and control groups.

| Group | Teaching approach | Pre test mean score | Post test mean score | Gain score |
|-----------------------|-------------------------------|---------------------|----------------------|------------|
| Experimental (N = 50) | Brain Based Teaching Approach | 6.42 | 19.62 | 13.20 |
| Control (N = 50) | Conventional | 6.52 | 14.48 | 7.76 |

Table 2 Independent sample t test for Newtonian Physics conceptual understanding in post test between experimental and control groups.

| Independent sample t-test | | | | | | |
|---------------------------|----|------------------|-----------------|-----------------------|--|--------|
| T | F | Sig (two-tailed) | Mean Difference | Std. Error Difference | 95 % Confidence Interval of Difference | |
| | | | | | Lower | Upper |
| -7.387 | 98 | 0.000 | -5.140 | 0.696 | -6.521 | -3.759 |

Significant level, $p = 0.05$

The same results apply to students' learning motivation towards Physics. Before the intervention, students from both groups (experimental and control) obtained almost equivalent Physics learning motivation mean scores in the pre-test administered. The scores were 2.15 at the Likert scale for experimental group

and 2.13 for control group. However, in a test administered after the intervention, the experimental group was found to have a better learning motivation towards Physics compared to the other group. Students from the experimental group had obtained a higher mean score, 2.82 than the students from the control group, with scores of 2.41. In addition, it was also found that the gain score for the experimental group was higher than that of the control group. The gain score for the experimental group was 0.67 whereas for control group, the gain was 0.28. The result from the independent sample t-test analysis has shown that there was a significant difference between the scores obtained by students in the experimental group ($M = 2.82$, $SL = 0.354$) and those in the control group ($M = 2.41$, $SL = 0.489$), with $t = -4.752$ and $p = 0.00$, $p < 0.05$. These findings confirmed that the Brain Based Teaching Approach was more effective in stimulating students' learning motivation towards Physics as compared to the conventional method. Results obtained are shown in the following tables 3 and 4.

Table 3 Student's mean score, standard deviation and gain score in pre and post test of Questionnaire of Students' Motivation Towards Physics between experimental and control groups.

| Group | Teaching approach | Pre test mean score | Post test mean score | Gain score |
|-----------------------|-------------------------------|---------------------|----------------------|------------|
| Experimental (N = 50) | Brain Based Teaching Approach | 2.15 | 2.82 | 0.67 |
| Control (N = 50) | Conventional | 2.13 | 2.41 | 0.28 |

Table 4 Independent sample t test for the score of learning motivation towards Physics in post test between experimental and control groups.

| Independent sample t-test | | | | | | |
|---------------------------|--------|------------------|-----------------|-----------------------|--|--------|
| T | F | Sig (two-tailed) | Mean Difference | Std. Error Difference | 95 % Confidence Interval of Difference | |
| | | | | | Lower | Upper |
| -4.752 | 89.298 | 0.000 | -0.406 | -0.085 | -0.575 | -0.236 |

Significant level, $p = 0.050$

6. Discussion

These research findings have shown that the Brain Based Teaching Approach was effective in enhancing student's conceptual understanding and learning motivation towards Physics subject. Besides being applicable to the Malaysian secondary school situation, the results obtained also confirmed previous related findings which have found that brain compatible teaching and learning approaches were effective in improving student's achievement cognitively and

affectively (Goh, 1997; Shamsun Nisa, 2005). Brain compatible elements are believed to be able to lighten the concept learning process, as well as stimulate motivation among students.

In this research, students' understanding of the subject matter was formed based on the implementation of brain compatible strategy. Students' exposure towards the phases of activation, clarification of the outcomes and the painting of the big picture, enabled them to be more focused and gave them a better ability to confront the learning process. These factors indirectly contribute to the students' optimal learning state. The Brain Based Teaching Approach, which focuses on the activity of "making connections", heightened students' awareness of their learning process (White & Gunstone, 1989). Various learning experiences, inputs (visualization, auditory, kinesthetic), contexts which involved emotion and physiology aspects in the optimal state of doing the learning activity phase, encouraged students to make connections, for the development of the accepted pattern. The acquired meaning was then strengthened with the active processing based strategy via inductive techniques, discussions, evaluations and problem solving activities (Caine & Caine, 1991). These teaching and learning activities have been shown to enhance information transferring process among students.

The application of pulse learning style, active learning and students centered strategy, emotions and real life experiences, in addition to the usage of aroma and music, were also found very effective in ensuring the optimum brain state of students. It was also observed that by practicing these types of techniques, students seemed to enjoy their learning process even more. The variety of choices provided by this teaching method made concept learning much more assessable and easier for students to grab.

Evidently, through the brain based teaching technique, students were also exposed to various concrete learning experiences for exploring the abstract concept learned. According to Brain Neuroplasticity (Diamond, 1988; Jacobs, Schall & Scheibel, 1993) and Proster Theory (Hart, 1975, 1983), these learning experiences indirectly increase synapse connections and neuron complexities to help the right connection on internalized concepts. The process eventually encouraged students' conceptual understanding of the matter and the correct pattern of meaning then was formed.

In contrast, students' readiness, focus on making the connection process, various learning experiences and active processing, are not really considered in classrooms that follow the conventional teaching method. A teacher centered teaching and learning process has always been the norm. The teacher often focuses his or her teaching towards concept exposure, drilling and lab activity. Conceptual understanding was never the aim of the teaching and learning process. The most vital component of the learning process was the ability of the students to answer exam questions.

The Brain Based Teaching Approach was also found to be effective in developing students' learning motivation towards Physics subject due to the implementation of brain compatible strategy, which includes focusing on the element of relaxed alertness in students' learning context. The implementation of this approach is

done based on the aim of generating appropriate emotions among students to enhance the learning process. This situation is stimulated through the formation of optimum environment and positive relationship in the students surrounding to make them feel more appreciated. Emotions that match to the learning situation were found capable of stimulating the brain to generate a better perception (Jensen, 1996). This means that when students are in a relaxed alertness state, they can organize their learning experiences more systematically and efficiently to easily internalize and retained the information obtained (Caine & Caine, 1991; Jensen, 1990). Therefore, the learning process becomes easier and learning motivation among students is further enhanced.

The strategies of orchestrated immersion and active processing implemented through the intervention of the Brain Based Teaching Approach also provides a variety of learning experience options through the various inputs and contexts by stimulating interest among students towards the subject taught (Caine & Caine, 1991; Jensen, 1996). Learning activities involving the entire physiological component cause students to make sense of fun and stay proactive in carrying out their roles (Jensen, 1996). Apart from successfully attracting students to study Physics, the implementation of the more effective reinforcement strategy, such as the activity of concepts' application in students' daily experiences, has also contributed to a simpler learning process (Sousa, 1995). Integration of all these elements have been found to lead to optimal teaching and learning situations in the classroom (Caine & Caine, 1991; Jensen, 1996), which eventually creates the conditions for compatibility between students' interest and excitement and the created environment to generate the desired learning motivation.

Compared to Brain Based teaching approach, the formation of appropriate emotions among the students is found not to be the main goal of the conventional teaching method. Most of the times, an emotional element is not inserted directly in the learning activities conducted. Consideration of the factors such as individual needs, optimum environment, positive relationship, the choice of learning experiences, physiological aspects and students' reinforcement activities is also less emphasized. As stated by Sharifah Maimunah Syed Zin and Lewin (1993) and Sulaiman et al. (1996), aside from just pursuing to complete the syllabus, teachers are still found to stick to the practices of linear teacher centered strategy. This situation contributes indirectly to a less desirable learning environment and eventually creates a stressful situation for the students. Negative emotions established from these types of environments tend to hinder the effectiveness of the restructuring process of learning experiences and cause difficulty in the internationalization of information (Jensen, 1996). As a result, students easily become bored and are less motivated to learn.

7. Conclusion

In conclusion, it has been found and proven that the Brain Based Teaching Approach was effective in encouraging conceptual understanding and learning motivation toward Physics among students. Results obtained have shown that there was a significant difference between the achievements of conceptual understanding and learning motivation for students that followed the Brain Based

Teaching Approach as compared to those who followed the conventional teaching method. The brain based learning group had obtained a significantly higher Newtonian Physics conceptual understanding and learning motivation score as compared to the conventional group. Therefore, it is concluded that the Brain Based Teaching Approach is effective in dealing with students' conceptual understanding and learning motivation towards the subject of Physics in schools.

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Creating the Classrooms of the Future: From Learning Management to Distributed Learning

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Abstract

Learning management (LM) software and learning content management (LCM) software such as Blackboard improved upon traditional content delivery systems characterized by talking head lecture classrooms. However, LM/LCM platforms were constructed for the Web 1.0 environment, with emphasis on control or management of the student by the teacher. With the growth of Web 2.0 we are ready to move beyond the management model to distributed learning. This presentation will describe the road we will take to the classroom of the future, and some of the difficulties that will be faced along the way. The insights to be provided are based on my research and experience during the past three years using social networks in a Japanese university classroom.

Keywords: learning management - distributed learning

1. Introduction

Teachers are struggling. They no longer have a clear idea of their role in the classroom. The facts they possess seem outdated and no longer useful to students. Students have a better understanding of new technologies and disruptive innovations than teachers. What can teachers offer to students in a world turned upside down?

The role of technology in extending the human potential and defining the skills required for the 21st century is an important and necessary consideration if we are to adequately understand what will constitute learning in the future. Computers and communications technologies have made possible computations and rapid access to facts that our minds could not even had dared to imagine a mere decade or two ago. Therefore, to insist, as do some educational psychologists such as Kirschner, Sweller and Clark (2006: 77), that "the aim of all instruction is to alter long-term memory. If nothing has changed in long-term memory, nothing has been learned," limits the human potential to an age now long gone. This view also threatens to move teachers back into classrooms dominated by rote learning, and a "return to basics". Pedagogical theories uninformed by technological innovation cannot adequately explain either what education is, or how learning will take place in the future.

As Jensen (2008: 225) has noted, "even though the dictionary definition of learning is quite simple - to gain knowledge and understanding, or skill by study or experience - when we attempt to measure learning, the complexity of the definition emerges." In fact, providing a definition for "learning" is such a difficult task that most textbooks on the subject simply attempt to avoid it. The result is

that teachers, and much research on education, commonly fall back on the behaviorist assumption that "children enter school with empty minds, and the role of school is to fill up those minds with knowledge." (Sawyer, 2006: 11) This represents an immense error in a world where information is easily available and in vast quantities to both student and teacher alike - in a world where Google and other search engines have the ability to function as our collective long-term memory.

In fact, the basic fallacy of Kirschner, Sweller and Clark and others arguing from a similar perspective is they perceive the role of the teacher as "teaching a discipline as a body of knowledge" (2006: 78), with that body of knowledge organized "in the mind of the teacher." (Shulman, 1986: 9) Certainly, there is knowledge and there are skills that our students need to acquire if they are to be prepared to function in society. However, we need to give more thought to what those skills might be, rather than merely accepting that they are the skills once considered to be part of every "good" education. We also need to more clearly define the role of the teacher in a world where knowledge - the focus of traditional teacher training - becomes obsolete almost as soon as it is created.

2. Future Skills and the Learning Process

In the pedagogical framework provided by Humphrey and Stokes (1999), some of the skills identified as being important to our students in a technology-mediated future) are 1) People skills (including listening and communication skills) 2) Team skills 3) Coaching skills 4) (Business) Analysis skills 5) Continuous improvement skills 6) Computer (technical) skills 7) Project management skills 8) Writing skills 9) Resource management skills. Trilling and Fadel (2009) identify the following more general skills as important for the 21st century 1) Learning and innovation skills (including critical thinking, communication, collaboration skills, and creativity) 2) Digital skills (including information literacy, media literacy, and ICT literacy) 3) Career skills (including flexibility and adaptability, initiative and self-direction, social and cross-cultural awareness and interaction, productivity and accountability, and leadership and responsibility).

In regard to the learning process itself, Hung and Chen (2001) have identified four principles upon which learning must be anchored. They are 1) Situatedness 2) Commonality 3) Interdependency and 4) Infrastructure. The concept of situatedness means simply that most interesting information is socially situated, socially constructed, and thus impossible to merely package into neat units of knowledge that are easily and wholly transferable to another individual. Dewey might have said that "knowledge requires meaning and meaning requires relations between experiences." (Shook, 2000: 66) These relations are impossible, of course, to merely transfer intact from one individual to another.

Hung and Chen's emphasis on the importance of commonality is supported by the observations of Rogoff (1990) and Lave and Wenger (1991) that people construct meaning together, based on and adhering to appropriate cultural norms. Through the process of working together in common areas and interests, the participants bond or identify with one another, forming what Lave and

Wenger called communities of practice (CoPs). In an educational setting, CoPs are created by groups of people who participate in joint activities in order to create and share knowledge, and are more commonly called "knowledge networks," or "learning networks." CoPs are characterized by 1) a shared domain of interest and a desire to develop competency in that domain 2) community activities through which learning experiences are shared and 3) the development of shared resources. (Anklam 2007)

Interdependency, the third of Hung and Chen's four dimensions of learning, is important to the learning process because it "connects participants to each other in ways that are diverse and complex," (Wenger, 1999: 77) allowing those participants to "interact based on the varying needs, expertise (knowledge and skills), perspectives and opinions" that are to be found within any diverse group. (Hung and Chen, 2001: 7) Interdependency within learning communities thus allows each participant to make use of another's abilities. As Hung and Chen note, by utilizing diverse expertise the learning community "can deal with problems and issues that are too difficult for any one individual to handle. An individual learns not just from the activities that they carry out themselves but from different members of the community."

Hung and Chen's ideas about infrastructure, the fourth dimension of their learning framework, imply there must be a means for the environment to engage participants in activities that will facilitate learning, but it is equally important that this learning be driven by appropriate accountability structures. Since it is the participants themselves who create these accountability structures, the instructor must stand ready as a guide to assist in the creation of rules and norms that allow participants to depend upon each other. Bielaczyc and Collins (1999) specifically mention such norms as "sharing principle," "negotiation principle," "respect-for-others principle," and "multiple-ways-to-participate principle," among others, that must operate within the teacher-student environments created in the classrooms of the future. traditional teacher training - becomes obsolete almost as soon as it is created.

Clearly, the evolving concept of the teacher as guide will move pedagogical theory in new directions, and demand a new set of skills from teachers. In the words of Brown and Druguid, "practice is an effective teacher and community of practice an ideal learning environment." (2000: 127). The future classroom will therefore be a networked, peer-guided learning environment that operates on the principle of what I call distributed learning. Distributed learning is in essence a type of self-directed learning, with the results of the learning to be shared by the community. The teacher, as just another information processor, no longer determines what is appropriate to study, or how information should be processed. Rather, the community, with its shared domain of interest and needs, will determine the the course of study, and the teacher will work in parallel with the students to produce a truly collaborative learning experience.

This model, of course, threatens the privileged position of the teacher in the present educational system. One might even jump to the unfortunate and mistaken conclusion that there is no longer any need for the teacher in such a system. Yet, within this system there is as much need for the teacher as there is for the student. In fact, there is perhaps more need for the teacher than there is

in our present educational system, and the reason this is so should serve to re-define the importance and role of the teacher within society, as well as concepts of leadership. Quite simply, our present educational system, and society as a whole, has lost sight of the fact that a network is only as strong as its membership, not its leadership. This is a theme that Tapscott and Williams (2006), Rheingold (2003), Shirky (2008) and many others have recently re-discovered.

This does not mean, however, that the leadership qualities a teacher can bring to the learning community are useless. A teacher who is able to motivate other members of the learning community, and contribute to the learning goals of the community with knowledge and skills, has performed an invaluable service to the community. The learning community is much stronger as a result of the efforts of the teacher than it would have been in his or her absence. However, all community members have a responsibility to contribute to the network, and to actively work to make it a success. Students must become active learners and take responsibility for their own education. They must become shareholders in the learning community. If they fail to do this the learning network fails, and in order to prevent this schools today must work to promote a culture of learning. I came to realize the importance of the learning culture as a result of my work on social networks within the Japanese learning culture.

3. An Experiment with Distributed Learning and Social Networks

In an effort to create educationally significant interactions and the appropriate conditions for learning I have described, I decided in the spring of 2006 to develop a social networking site for my students at a Japanese university in Kobe, Japan. This decision seemed like an organic development from my past work with learning management (LM) and learning content management (LCM) software. After four years of working in a Moodle learning content management environment I had decided to move on to a more collaborative software platform, to Lave and Wenger's (1991) learning through peripheral participation. I felt the new direction would allow me to update my own skills and give my students the benefits of a more authentic learning environment. Over the years I had become increasingly concerned that all of my efforts with LM systems such as Moodle amounted to little more than pouring old wine into new bottles. As Herrington, Oliver, Herrington and Sparrow noted in a conference paper presented to the Australian Society for Computers in Learning in Tertiary Education (2000), traditional top-down education is still alive and well on the Internet, thriving in LM and LCM environments. I was worried the content-driven, teacher-centered approach to education Cuban (1993) criticized was not providing my students with the learning culture or skills they would need to take with them into the 21st century.

My students were initially impressed with the concept of learning networks, but the excitement rapidly faded when it became apparent they would require a lot of hard work to maintain. After three years of disappointing results in promoting active student participation within the network," I began to understand it was not an easy ask to grow a vibrant educational community, or change a learning culture. Japan's most successful social network, Mixi, had made growing a

network seem so easy, but the more I learned about the secret for Mixi's success, the more I came to understand the limitations of social networking for promoting my original pedagogical goals within the broader Japanese culture.

The social network I was attempting to create among the students at my university was, of course, more than just a means for friends to stay in touch with each other. My intention was to create a distributed or parallel learning community, characterized by self-directed knowledge exchange within the network. The exchange of knowledge was to be facilitated by the ability to post blogs, video and audio resources, initiate forums and discussions, and post other information via the social networking software. The degree to which the network would successfully function as a vehicle for the exchange of knowledge was directly related to the quantity of information published, and its relevance to the lives of the members. I was, unfortunately, extremely disappointed by the failure of my Japanese students to embrace the network as a vehicle for the posting and exchange of information.

Unfortunately, my Japanese students remained directive-motivated. They were not motivated to explore the network and its possibilities on their own, and did not actively use it as a means to engage in information sharing. Little knowledge was created on the network unless it was produced as a result of an assignment required by the teacher. Blog pages remained empty until themes were assigned, forums were deserted, and postings in general were for the most part absent. In short, the network failed to sustain itself and would doubtlessly have failed in the absence of direction provided by the teacher. This conclusion correlates with similar findings on the weak nature of self-directed learning among Asian-American students in research performed by Iyenga and Lepper. (1999)

4. Learning Culture and the Implications of the Study

The paucity of information generated by the students on their own volition was the major reason I judged my experiment with distributed learning a failure, and the reason for the failure led me to a deeper investigation of the importance of the "learning culture" (or actually its lack) created by the Japanese educational system. The American educational system, although plagued with numerous weaknesses, exhibits great strength in its ability to nourish inquisitive minds that question "known" facts, accepted authority, and commonly held beliefs in a constructive manner. These strengths are, for the most part, entirely lacking in the Japanese educational system. As a result, textbooks are accepted as unerring, teachers as authorities, and questions as signs of either disrespect or ignorance. (Warrington 2005) These factors all work against the sharing of information and knowledge.

The virtual environment of the online social network can help to ease the inhibitions of the Japanese student, but it cannot erase them entirely. Likewise, the power structures of the real world do not disappear into total insignificance in a Japanese learning community. In my experience the students were as likely to look to the teacher for direction and "expert" knowledge in the virtual world as they were in the real world. They were also as likely to accord respect (or at least avoid confrontation) as they were in the real world.

This is true because when students enter our classrooms they bring with them their personalities, belief systems and cultures. They do not shed these when they join an online community, though their identities may become more plastic in a world where factors such as race, nationality, and first language do not immediately define who they are. My research has shown that identities are not so much re-defined as amplified in an online community. Few online participants are truly able to leave their real-world culture behind merely as a consequence of joining an online community. Basic cultural assumptions continue in the online world, perhaps because we feel most at ease while operating within the parameters established by the culture in which we were raised. Although there may be a momentary feeling of freedom within an online community, as there is for some people as a result of foreign travel, few people are prepared to leave behind the comfort of the world they know best and actively participate in a community where the culture is radically different from their real-world culture.

One of the great lessons to be learned from globalization is that cultures that readily embrace change and emphasize their similarities with other cultures prepare their citizens to feel at ease in the broader world, while cultures that stand apart from the outside world and emphasize differences with the rest of humanity prepare their citizens to feel at ease only in the local culture. When confronted with another culture these products of cultural isolation experience uncertainty in negotiating within the new culture and a great deal of unease with an unfamiliar situation, as was true in the case of my students. Unfortunately, the Japanese sense of "haji," or shame, at making a mistake during communication, further shuts down the communication process. (Nakai 2002)

Like species, cultures become dominant or fade into extinction as a result of their ability to adapt to the environment. In a world of global networks and information exchange it is essential individuals and nations examine the degree to which their own culture and personality contributes to global information exchange and internationalization, or fails to embrace emerging trends. It has become, in fact, a strategic necessity for nations and a survival imperative for individuals that they nourish a "learning culture" and seek out lifelong learning opportunities. Cultures that have become insular and closed, as has Japanese culture, will need to transform themselves if they hope to survive in the globally networked society of the 21st century.

In regard to the education, it is clear that cultures and teachers that promote active participation in the learning process best serve the interests of their students. Teachers need to abandon their role as "expert," and embrace their role as appointed moderator of the educational process. There is certain to be a great deal of reluctance to abandon a privileged position, but the disruptive technologies shaking the educational establishment make the outcome a forgone conclusion.

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Risks, Ambivalences, and Reorientations of Educational Processes in Globalized Societies

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Abstract

In a more interconnected world, powerful forces and growing challenges place particular demands on education, calling on people to interact and compete in the globalized environment. Much is therefore asked of contemporary education which must deal with increasing complexity, diversity and ambiguity. Education systems, which are both shaped and transformed by globalization phenomena, are required to develop new strategies for dealing with the current events. The effects and consequences caused by globalization processes thus have to be addressed, defined, examined and reconsidered within the discourse of education. Additionally, there is the need for people to obtain greater multifaceted skills, competences and interpersonal sensitivity in order to be able to master their personal and professional lives in the new millennium. This analysis focuses on broader and more innovative educational concepts, strategies and perspectives as well as on the development of a global consciousness which encourage people to become more informed, engaged and critical world citizens

Keywords: globalization – education – competences – inequality - global consciousness

1. Perspectives on and Impacts of Globalization

Globalization can be historically described as an ancient dynamic that likely arose around 60,000 years ago when humans, as a species, first started to expand out of the African savannah in order to explore and much later, to transform the globe (Suárez-Orozco/Sattin, 2007: 7). In view of such expansion the historical, cultural, technological and demographic changes brought on by globalization carry with them major implications. Without a historical narrative, it is difficult to distinguish between the duplications and repetitions of previous globalization processes and to differentiate them from previous cycles of globalization. Prominent scholars such as Amartya Sen (2000), Michael Hard and Antonio Negri (2000) claim that globalization can be defined as part of a long-term process, pointing out that certain features of globalization such as large-scale migration and international capital flows are thus not necessarily new (Suárez-Orozco/Quin-Hilliard, 2004: 15).

Before taking a detailed look at the connections between globalization and education, globalization will first be described in more detail (Suárez-Orozco/Quin-Hilliard, 2004: 14). The term globalization is quite broad and lacks well-defined boundaries; it is used interchangeably with concepts such as transnationalism or post-nationality and imperialism or neo-colonialism. It is regularly equated with free markets and is often a replacement term for Americanization. It is also used to examine themes that in earlier scholarly works have been analyzed under the rubric of development or world systems theory

(ibid.: 9). Although globalization is a very prevalent topic of discussion, there are many different opinions concerning its meaning, origins and long-term implications (Camilleri, 2008). While for some globalization is nothing more than a simple although important extension of how the world has been integrating economically for centuries, others view the globalization phenomena as something profound; as a collection of rapid and fundamental changes that are transforming worldwide culture and the makeup of societies. According to David Held and Anthony Mc Grew (2002), globalization, which connects distant communities and expands the sphere of power relations to distant regions, can be defined as a shift or transformation at the level of human organization. From this viewpoint, globalization is accepted as a transformational process in the order of the world that addresses constraints such as space and time, for example relationships between territory and socio-economic aspects and politics (Jotia, 2009: 2). For Deane Neubauer, contemporary globalization is as far-reaching as the history of the industrial revolution, including the political and economic shifts that followed, because globalization has shaped transformations to a similar degree in areas of information and knowledge generation, capital-flow and energy consumption on a local, national and transnational level. Moreover, there are changes in how states interact and how supra-state and non-state actors organize and affect human behavior (Neubauer, 2006: 1). However, each scientific discipline has generated its own particular use and approach to the term globalization, though there are certain characteristics which seem to converge. Globalization can then be characterized "as a set of processes that tend to de-territorialize important economic, social, and cultural practices from their traditional boundaries in nation-states". The Polish-British sociologist and philosopher Zygmunt Bauman (1998) claims in this context that globalization involves a "post-geography" (Suárez-Orozco/Quin-Hilliard, 2004: 14).

In order to understand globalization processes, it should be pointed out that globalization is structured by four interrelated formations: first, by post-national forms of production and distribution of goods and services, growing levels of international trade, foreign direct investment and capital flows; second, increasing worldwide migration; third, cultural transformations and exchanges challenge traditional values and norms; fourth, information, communication and media technologies facilitate exchange, connect people around the world and increase the value knowledge-intensive work (Suárez-Orozco/Quin-Hilliard, 2004: 14). The current globalization phenomena is to a certain extent the product of these new technologies that directly connect people, organizations and systems around the world and which have the potential to free people from the constraints of space and time and to better create and circulate images, data and other media. Such technologies rapidly and irreversibly change the nature of learning and education and have a huge impact on local cultures around the world. The new technologies generate powerful and seductive images of "the good things" that make "the good life" and circulate them worldwide, creating new globalized structures of desires and wishes along with feelings of relative deprivation. One of the central discourses in the study of globalization is the cultural homogeneity hypothesis which predicts that global change processes will certainly lead to a more homogeneous world culture (ibid.: 17).

However even though people still live in local realities, their increasingly globalized realities are challenged by and integrated into larger global networks

(Suárez-Orozco/Quin-Hilliard, 2004: 2). To maintain, nurture and validate local knowledge, languages and natural resources as well as to strengthen local cultures is a critical task (Bloom, 2004: 73). In conclusion, it is clear that while some observers interpret globalization processes as positive developments, for example the promotion of economic development or intercultural exchange, others point to its corrosive dynamics such as threats to age-old traditions, religious identities, authority structures, values, worldviews and much more (Suárez-Orozco/Quin-Hilliard, 2004: 7).

2. Implications for Education

Education characteristically changes because of shifts in values, new scientific breakthroughs and sweeping historical and social shifts along with other factors such as globalization (Suárez-Orozco/Sattin, 2007: 7). This article proceeds from the premise that contemporary globalization processes demand a fundamental rethinking of the aims and processes of education (Suárez-Orozco/Quin-Hilliard, 2004: 14). This leaves open the question as to how education is transformed by globalization processes and how it shapes and deals with the mechanisms of globalization. Taking this as a starting point, there seems to be the need for a better theoretical understanding of the economic, demographic, social and cultural implications of globalization; a necessity to examine how education supports the participation and engagement in global processes; and the requirement for a dialogue between scholars, practitioners and policy makers (ibid.: 25).

Because of the realization that success in today's economy depends greatly on an individual's education, the demand for education is currently growing very rapidly (Bloom, 2004: 72). But what are the implications for education relating to the global economic dynamics? Harvard economist David Bloom (2004) asserts that education is more important than ever before, claiming that growing worldwide inequality, based on increasing gaps in income and well-being, leads to a continuing and growing global gap in education (Suárez-Orozco/Quin-Hilliard, 2004: 16). In the same vein, Bernard Hugonnier (2007: 138f.), Deputy Director of the Directorate for Education at the OECD, maintains that "Globalization increases social and income disparities at the expense of social cohesion, necessitating improvement in equality of access to quality education and equality of educational outcomes". The phenomenon of globalization is commonly connected to the increasing inequalities of income and wealth in both developed and developing nations. Inequalities of income thereby signal relative inequality in gaining access to goods and services such as food, water, shelter and healthcare, the security of law and order and above all education (Neubauer, 2006: 11). The problem is that the globalization of inequality has not only been tolerated as a byproduct of current globalization processes, it has additionally served as a required component of the global order. But the gap between the richest and the poorest nations has begun to expose the limits of the exploitative character of globalization, while these restrictions are mainly noticed by states residing at the periphery (Dunklin, 2005). The growing inequalities of course have considerable negative impacts on how education will develop over the coming decades. For many parts of the world, the fundamental educational task,

which is enormously impeded by these growing and persistent inequalities, will be to increase the capacity for elementary education (Neubauer, 2006: 12).

But globalization processes also bring many challenges and create new opportunities for education. Taking advantage of international knowledge sharing facilitated by globalization can help educators to adopt new approaches. The technological improvements that globalization has accelerated facilitate knowledge transfer between countries and between education systems (Bloom, 2004: 72ff.). However, there are currently direct and indirect implications for education through the growth of the knowledge economy and the use of information and communication technologies (Hugonnier, 2007: 137). It can be concluded that the effects of the global communication networks have profound consequences for formal education processes because they facilitate the deterritorialization of entire economic sectors and knowledge-intensive work in general (Suárez-Orozco/Sattin, 2007: 12).

Consideration of Skills, Sensitivities and Competencies

The next section deals with the fact that globalization brings with it both opportunities and threats and can best be addressed by an educated populace. The aim of education should then be to generate knowledgeable, skilled and competent individuals who are able to make the most of the globalization benefits while they are simultaneously able to manage its threats (Bloom, 2004: 75). It is possible to assert that the task of education in the twenty-first century is to nurture and stimulate cognitive and meta-cognitive skills, strengthen communication competences and understanding, cultivate interpersonal sensibilities and values, encourage cultural sophistication, (Suárez-Orozco/Sattin, 2007: 12) promote an open-minded attitude, broaden knowledge, competences and experiences and help people to deal with issues that transverse borders such as environmental degradation, international migration and security (Bloom, 2004: 69).

The complexity behind many problems caused by globalization processes requires deep disciplinary grounding and the ability to multi-disciplinarily reach understanding, collaboration and solutions. Interdisciplinary concerns are at the foreground in an increasingly globalized society. Issues such as poverty reduction, ecological balance, energy conservation, anti-terrorism and numerous others call for input from and syntheses of different forms of disciplinary knowledge and methods. In the face of globalization, the task of contemporary education is then to nurture the cognitive and interpersonal aptitudes which are required for problem defining and problem solving processes as well as the ability to articulating arguments and make use of verifiable facts. These skills, sensitivities and competences are compulsory if one is to engage in the larger world, to master its greatest challenges and to transform it for the betterment of humanity (Suárez-Orozco/Quin-Hilliard, 2004: 6). An education for the global era therefore has to include lifelong cognitive, behavioral and relational engagement with the world. To possess the competency to identify, analyze and solve problems from multiple perspectives requires cognitive flexibility, toleration of ambiguity and the synthesis of knowledge within and across disciplines (Suárez-Orozco/Sattin, 2007: 19). The development of societal and individual

competencies such as flexibility and adaptiveness, mobility, creativity, critical thinking, digital literacy and networking ability are of crucial importance. Besides, contemporary developments require a better balance among the different education levels, the recognition of the necessity of lifelong learning processes, the centralization of the learner in educational strategies, the shifting of the focus from the supply-side to the demand-side of learning, the need for self-directed learning and the recognition of both formal and informal learning (Hugonnier, 2007: 140ff.). To summarize briefly, lacking human competencies are the source of many problems and education can therefore have a powerful effect on human development. Likewise, high-quality education improves the status of women in society and, to the extent that people are able to develop their capabilities, it reduces poverty (Bloom, 2004: 57).

3. Reflections on Global Consciousness

In this final part of the article, the focus of attention is on global consciousness, a cognitive-affective construct, which can be defined as first the degree to which the beliefs and orientations that represent specific forms of global consciousness operate as well-articulated belief systems or conversely loose collection of at times contradictory ideas (Mansilla/Gardner, 2007: 62f.). Veronica Boix Mansilla and Howard Gardner (ibid.: 48) from the Harvard Graduate School of Education argue that "Learning should be inspired by the goal of developing global consciousness – a mindful way of being in the world today". Global consciousness includes the ability to take account of global dimensions of contemporary experiences; reflects on tensions, issues and options, creating cognizant categories and modes of thinking; and defines the individual identity as a part of complex global political, social, economic and environmental spheres. Because individuals situate themselves differently in geopolitical, cultural and environmental landscapes, the content and orientation of global consciousness varies across cultures and regions and thus the enquiry into global consciousness must be cross-cultural (ibid.: 62f.).

Global consciousness places the self on an axis of contemporary space which is comparable to the way historical consciousness places the self along an axis of time. At the heart of global consciousness lie three cognitive-affective capacities: *global sensitivity*, *global understanding* and *global self-representation*. *Global sensitivity* can be described as the awareness of local experience as a manifestation of broader developments on the planet. Individuals around the world experience globalization not in its fullest complexity; however their daily lives are affected by contemporary processes in concrete ways such as changes in governance, cultural exchange, new forms of production, novel modes of working, consumption and communication. Moreover, global sensitivity entails selective attention to issues noticeably shaped by or shaping global interconnectedness. Daily experiences are then considered as instances of the world's increasing local presence and thus, a globally conscious mind is adjusted to local expressions of global phenomena. Cultural diversity dominates contemporary daily life in post-industrial as well as in developing nations and various forms of media transport cultural symbols transnationally, rendering popular culture as a central agent in the selection and representation of global things. Transnational media production is hence creating new international and

intranational inequalities and social unrest; this is noticed selectively by the globally conscious mind as experiences of increasing interconnectedness and tension. *Global understanding* is the capacity to think in flexible and competent ways about contemporary global developments. Global consciousness requires a knowledge and understanding of contemporary global developments within a framework via which daily practices and products can be interpreted and organized. But the global consciousness does not blindly absorb, consume or resist the products and practices yielded by the accelerated global exchange; instead it aims to locate them reflectively within believable explanations, trustworthy narratives and informed considerations of how local cultures deal with experiences of global transformation or of views on how the world works. While historical consciousness is unachievable without an understanding of history, global consciousness is unattainable without an understanding of the rapidly changing world. *Global self-representation* is the perception of humans as being global actors which can be translated as a sense of planetary belonging and membership in humanity that guides actions and drives communal commitments. Global consciousness therefore constructs a representation of the self as a protagonist in the global matrix. Through contact with people, products and daily situations which are contextualized in a broader global framework, humans acknowledge these experiences, inclinations, relationships, commitments, and concerns that advance the understanding of the world and the relation to it as well as to others. Global consciousness equips the self with a transformed sense of relationship to people and issues. These transformations cross personal, family, local, cultural, national, regional and global landscapes, regardless whether or not these relationships are harmonic or problematic. Additionally, the global consciousness performs its orienting function by interpreting and positioning the self as a global actor. At present, people are called on to position themselves and master new situations in everyday life in this rapidly globalizing world (for example as actors promoting economic liberalization, as compensatory agents struggling against growing inequality, etc.) However, global consciousness does not generate one single normative path to guide practical action; instead, the sensitivity toward, understanding of and personal engagement with global matters offers a stage from which numerous feasible actions can be arrived at which also includes the option to not act at all (Mansilla/Gardner, 2007: 59ff.).

Looking at global consciousness through the lens of education or observing it as a developing psychological capacity, the most essential meaning of global consciousness for individuals in the 21st century is to give coherence to otherwise fragmented experiences. Global consciousness situates individuals in unifying narratives and explanations that helps them to make sense of every day developments; this process is not without stress. It is possible to assert that global consciousness expands the human self beyond the limits of the here and now, revealing new aspects of identity in relation to others as well as to the world (Mansilla/Gardner, 2007: 63). To conclude, the concept of global consciousness is a desirable long-term goal for contemporary education (ibid.: 48).

4. Concluding Thoughts

Through globalization the movement of people, goods and ideas between countries and regions increases. Globalization is therefore deeply involved in nearly all major concerns of the new millennium such as free trade, protectionism, population growth, poverty reduction, social justice, the environment, diseases, terrorism, etc. Current globalization processes hence generate considerable interest and controversy in economic, political and grassroots circles; in social sciences and the humanities; within corporations and among the informed public at large. However, the accelerating transnational dynamics affecting educational processes have up to now barely been considered (Suárez-Orozco/Quin-Hilliard, 2004: 1). The specific objective of this paper is to acknowledge that globalization increases the importance of education because of the growing competitiveness of the world economy, the rising interdependence of countries and the strengthening links between human development and economic growth (Bloom, 2004: 72). There is a gap between what education is and what it needs to be and thus, education faces new challenges. Today much is therefore asked of contemporary formal education; there is the need for multifaceted competences such as cultural sophistication, skills for critical thinking, interpersonal sensitivity, better communication and collaboration skills as well as cognitive and metacognitive abilities for reflecting on learning processes to be able to become lifelong learners (Suárez-Orozco/Sattin, 2007: 2f.). However, the challenges and opportunities brought about by globalization offer opportunities for education, particularly through new technologies which can improve both the quantity and quality of education worldwide (Suárez-Orozco/Quin-Hilliard, 2004: 17).

Globalization brings nations closer together and increases the importance of cross-national communication. Through increased trade and international mobility, countries are economically, socially and politically interdependent and thus interaction with people from other countries and cultures is becoming more important. Extensive cross-cultural interchange currently takes place at many levels of society and creates a "teachable moment" that allows for reflecting on other cultures as well as on the view of other cultures (Bloom, 2004: 68f.). Consequentially, globalization leads to more economic exchanges and interchanges between countries as well as to greater social heterogeneity in terms of culture, ethnicity, language and religion. Social capital (values and principles such as tolerance, cooperation, solidarity) has then to be developed, and individuals are expected to know more about foreign cultures and learn foreign languages (Hugonnier, 2007: 138). In an increasingly globalized world, awareness of the global society in which everyone's actions have effects on others and the responsibility for one's actions extends beyond the local community and beyond national borders is unquestionably needed. To be aware of these new realities is an important step in adapting and improving, and education plays an essential role in forging this understanding. Accordingly, one of the central goals of contemporary education is to help individuals to be part of the contemporary world (Bloom, 2004: 73).

Whereas some regions of the world deal with globalization relatively well, for example much of East Asia which has achieved unprecedented economic growth and well-being, the forces of globalization have intensified patterns of inequality

and human suffering in other regions of the world (Suárez-Orozco/Quin-Hilliard, 2004: 16). Quality education is therefore crucially important in combating the inequalities that are intensified by globalization processes. Nevertheless, globalization continues to impose demands and distribute benefits unequally, and education will therefore not be the complete answer to this problem; it can however be a significant part of the solution (Coatsworth, 2004: 53). The cultivation of the skills, sensitivities and competencies which are required for productive and critical participation can thus be seen to be vital (Suárez-Orozco/Sattin, 2007: 20). Marcelo M. Suárez-Orozco and Carolyn Sattin (ibid.: 19) from the New York University articulate in this context: "An intellectually curious, cognitively autonomous, socially responsible, democratically engaged, productive, and globally conscious member of the human family in the twenty-first century cannot be educated in the twentieth-century factory model of education."

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Identities within Globalization – Cultural Visions on Contemporary India

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Abstract

The balance of power among the world's regions and states is changing, and these shifts are presently profoundly affecting India. This study in the area of social science shows that the Indian subcontinent is being forced to respond to challenges of the globalization process such as multiculturalism, homogenization, pluralization, growing pressures within societies, conflicting value systems and diversity in lifestyles. Because of these substantial large-scale changes, traditional, social, and cultural identities are being called into question around the globe. The aim of the paper, which is based on an interdisciplinary literature analyses, is to describe India's prospects. India is confronted with a high degree of social change, the integration of its economy into the world market, the education its people who are often illiterate and poorly qualified, the integration of millions of young people into employment-related processes and many other challenges.

Keywords: India - identity building – globalization - new information technology - Indian middle class

1. Economic Perspective on Contemporary India

In the early years of the twenty-first century, an independent India has brought itself onto the international economic scene primarily through its high economic growth rate. Although its role in decision making on international trade issues is still modest, it has become increasingly active in working out bilateral and regional preferential trading arrangements (cf. Nayar, 2007: 32). India started its economic reforms in 1991 and since then has been one of the fastest growing developing countries in the world; it is the fourth largest economy in the world after the USA, China and Japan. As research conducted by the global investment banking and securities firm Goldman Sachs suggests, India can exceed the economic growth of China as early as 2015, Britain in 2022 and Japan in 2032 (cf. Murthy, 2009: 55). Observing the breathtaking changes and shifts in India since the early 1990s, it is not surprising that India is expected to become one of the largest economic powers in the new millennium (cf. Mohn, 2005: 16).

As this study in the field of social science shows, while at present India has a 21st century manufacturing and education system (in terms of higher education) and a services sector focusing on software and outsourcing, it still has a 19th century rural economy (cf. Boecker, Debroy, Wieck, 2005: 7). The majority of the employment is outside the formally recognized employment sector; this means that most people who are employed (more than 90 percent) work in the unorganized sector – a giant black economy which is outside the reach of labor

laws and the income tax system. India's manufacturing sector is also not large enough or successful enough to take on the rural workers. Additionally, poorly qualified rural workers will be of little use in the immediate future because many of India's rapidly growing service sector companies require well-educated employees (cf. Smith, 2008: 184). This huge gap between the organized and unorganized India is what makes the country's economy so peculiar. In 2005, India employed only seven million people in the formal manufacturing sector, compared to China which employed more than a hundred million in this sector. The country therefore has to build a bridge between the traditional and the modern world, providing jobs for unskilled and semi-skilled workers in the manufacturing sector (cf. Luce, 2007: 49).

A closer look reveals that the attempts by India's governments to move industry, job creation and investment into rural regions have failed entirely because of the absence of even minimal infrastructure in rural areas. About 28 percent of India's villages lack a primary school, 54 percent of villages are far away from the nearest healthcare facility, and 40 percent of India's rural areas lack roads which are useable throughout the year. The consequences of these figures are that India's urban economy grew at an average of 7.3 percent over the last decade, while the rural economy grew only at an average of 1.9 percent. Another effect of this situation is that the average urban income is twice that of rural areas and the contribution of rural workers is therefore much less than that of workers in the urban economy (cf. Murthy, 2009: 103). Taking these facts and figures as a starting point for this study, it is notable that the Indian economy has appeared to be skipping a normal stage of economic development and thus the usual flow from primary agriculture into secondary industry and tertiary services hardly exists (cf. Smith, 2008: 184).

Unemployed Young Indian Identities

While India is on the one hand confident and booming, it is on the other hand still unable to provide secure employment for the majority of its people (cf. Luce, 2007: 49). On the Indian subcontinent, unemployment is estimated to be at around 10 percent. India will add 325 million people to its working population by 2016 – an advantage for the country if it is able to provide gainful employment for its youth; however, it will be a curse if the youth remain idle and hopeless (cf. Murthy, 2009: 10). This statistics is alarming when one realizes that about 70 percent of these young people, specifically those between eighteen and twenty-five, are illiterate or barely literate. A number of estimates claim that the number of unemployed lies at around 250 to 300 million on the Indian subcontinent, and that every year about 15 to 20 million new job seekers are added to this already massive number (ibid.: 260). If current trends continue, this prognosis will lead to extremely widespread unemployment, mostly for Indian youth, which will in many unpredictable ways yield a substantially negative socioeconomic situation. Being confronted with likely the world's worst youth unemployment situation is a worrying prospect in terms of India's future development (cf. Smith, 2008: 185). This is particularly true if one notes that the country has been able to generate scarcely 2 to 3 million jobs per year. A further dimension is that about 92 percent of these jobs are in the unorganized sector. In this labor sector, the salaries are low and the benefits are non-existent.

Another aspect of the current situation is that about 65 percent of the population or about 650 million Indians are living and working in rural areas. Their primary income is from agriculture and related services, which only adds 26 percent to the GDP which is less than 40 Rupees (0.71 Euro) a day. As a consequence, there are two considerable problems which India is confronted with in the immediate future: first, generating employment for 15 to 20 million new entrants in the job market every year, and second enhancing the per capita income for the vast majority of the 650 million Indians who are employed in agriculture and related sectors in the rural countryside (cf. Murthy, 2009: 260). The impact of globalization in India has been anything but unified because most people do not benefit from the expanding Indian economy (cf. Derné, 2008: 34). There are already signs that the price India may have to pay for a largely jobless recovery is widespread political instability (cf. Smith, 2008: 168). This analytical investigation points out the fact that excessively optimistic projections of future growth should therefore be treated with scepticism, however if the high growth projections turn out to be true for India, it creates a new set of macroeconomic problems and consequences for the country, especially in the manufacturing sector (cf. Kapur, 2007: 403).

2. Changing Identities: India, China and Europe

As globalization progresses, Europe and India grow increasingly interdependent economically and politically. As a result, these changes bring with them economic prosperity and sociopolitical challenges. The analysis of this development shows that India, like Europe, is being forced to respond to the growing competition, pluralization, multiculturalism and international exchange that characterize the current age. As interdisciplinary study shows, nowadays, through the changes in value systems and lifestyles, traditional social and cultural identities are called into question and thus both Europe and India face similar challenges: they have to resolve the growing pressures within their own societies to accommodate a range of cultures and ethnic groups and to find solutions to an intolerance which arises from differing religious beliefs and ethnic identities. On an international level, both are in the focus of global actors as religious fundamentalism and cross-border terrorism threatens their security (cf. Boecker, Debroy, Wieck, 2005: 10).

However, at the moment India is more closely connected to the United States than to Europe, which is at present working on becoming more unified within. This direction has been the result of India's growing perception that the United States has been more sensitive to India's aspirations and security concerns. While European powers like the United Kingdom, France and Germany have cooperated intensively with India in recent years, this has not been translated into a coherent position on Europe in India (cf. Mohan, 2005: 55). Comparisons between India and China would be out of the question were it not for their near simultaneous economic emergence and high population growth rates (cf. Smith, 2008: 172). However, the powerful geopolitical shift which is happening presently via the rise of China and India (cf. Nayar, 2007: 42) is occasionally called "the rise of 'Chindia'". While the nineteenth century can be described as European and the twentieth century as American, the twenty-first century is likely going to be Chinese and Indian, though we are only a few years in. The

monumental accomplishments and the contributions of and consequences for other members of the regional and global communities are certainly profound (cf. Smith, 2008: 171f.) and thus, the outlook for India's and China's rise brings challenges that are perceived of as being enormously threatening by many nation-states (cf. Nayar, 2007: 42).

Similarly to China, India is nowadays quite hopeful and confident about its future development and potential while Europe has become more and more defensive because of the fundamental redistribution of global economic power (cf. Boecker, Debroy, Wieck, 2005: 7). While India and China are experiencing new forms of optimism, Europe is increasingly burdened with a sweeping pessimism because of high unemployment, low growth rates, opposition to the integration of skilled migrants, etc. In summary, the rise of India and China has made Europe's economic future uncertain since China takes away manufacturing jobs and India is so dominant in the service sector. A relocation of the production to India and China seems inevitable if the present trends in global demography and the rising costs of production of goods, services and knowledge in the West continue (cf. Mohan, 2005: 51).

3. Indian Identities within Globalization

Local developments, i.e. developments in specific cultures, always coexist with the development of a global culture. The existence of a variety of cultural frameworks, within which and between which people must orient themselves, means that cultural identity must no longer be conceived of as a one-way connection to a particular cultural framework but rather as a complex set of circumstances. This complexity is increased by the fact that people change their cultural identity according to biography and situation, i.e. they embody it. Individuals can develop their identity in several cultural frameworks, be it through the sense of a feeling of belonging, via real belonging or through the development of a complex cultural self-perception. The question is whether the term 'cultural identity' can still be used in the singular, since it now describes a complex identity that points to a variety of cultural frameworks (cf. Flechsig, 2002: 67). Cultural globalization intrinsically affects structural arrangements and the meanings people attached to those arrangements (cf. Derné, 2008: 162). Through the exposure to different value systems and lifestyles, traditional social and cultural identities are called into question worldwide. Societies currently have to react to the challenges presented by cultural differences and social transformation and thus cultural identity is becoming the flashpoint of social change (cf. Boecker, Debroy & Wieck, 2005: 10). A willingness to respect the cultural identity of different nations, societies and individuals as well as a respect for local cultural roots is therefore needed (cf. Körber, 2006: 85). In conclusion, it is clear that the ability to "take the world into perspective" is of central importance to the structuring of individual lives and identity-building processes. The examination of and reflection upon contradictory phenomena connected to the processes of globalization can then assist in forming individual identities (cf. Welter, 2009: 154).

3.1. Professional Indian Identities

At present, India is the leading nation in the field of software production – an area of high technology categorized as part of the service industry. In addition, the country has a leading position in the field of outsourcing services (cf. Müller/Rauch, 2008: 10). The most important consequence of the success of the Indian IT sector is on the country's confidence. India had lost faith in itself in the late 1980s when the country struggled with the reality of the growing relative backwardness, particularly in comparison to other Asian countries. The success of the IT sector then served to legitimize the introduction of capitalism to India's political and economical elite who only reluctantly accepted the reforms of the 1990s (cf. Kapur, 2007: 406). The principle reason for India's IT success seems to be its human capital (cf. Smith, 2008: 136). The country currently possesses a great reservoir of scientist, engineers and computer specialists, even though the India of the not too distant past was seen as the world's poorest region with the highest number of illiterate people (cf. Ihlau, 2008: 4). Due to the use of English as the national language after independence, India has a large pool of workers who are able to speak English fluently and therefore contribute to India's comparative advantage in software and IT-related services (cf. Kapur, 2007: 392).

The country, with its large pool of skilled as well as semi-skilled professionals, is today able to handle not only routine office tasks but also highly skilled professional activities such as medical transcription, insurance claim processing, payroll and human resource services, customer service, data entry, geographical information systems and online education (ibid.: 387). The software and IT sectors also have large spill-over effects on other economic sectors. In other words: the competencies built up in the software area can easily be transferred to other high technology fields such as bio-informatics, pharmaceuticals, media and entertainment (ibid.: 403). The world has changed from an industrial to an information economy and the success in the IT sector is the first evidence that it works to India's advantage (cf. Das, 2002: xi). Considering that today one in three IT experts around the world is from India, India's modern heroes are the professionals who are developing the technology of tomorrow (cf. Follath/Padma, 2005: 80).

3.2. Indian Middle Class Identity

The rise of the IT sector brought with it the rise of the "Indian middle class". The term relates to the urban English speaking elite (world travelers, email users, adherents of the Western lifestyle) and thus applies to only a few Indians (cf. Derné, 2008: 40). The rich English speaking elite, which constitutes perhaps the top 10 percent of the urban population, think of themselves as "middle class" on a global scale (ibid.: 44); they see themselves as being between the poor Indian masses and the more wealthy cosmopolitan middle classes of Europe and North America. The "Indian middle classes" construct their identities in opposition to their class 'outsiders' (ibid.: 18). The urban elite, who usually employ at least one full-time servant and who depend heavily on low wage labour to maintain their middle class lifestyles, certainly have no interest in the "general middle classing of society". Also, they have little interest in improving the standards in

government schools because they can afford private English-language schools for their children; this gives them a better chance at securing places at specialized Indian universities (ibid.: 41f.).

Remarkably many 'ordinary' Indians who own scooters and televisions, though they can hardly dream of the lifestyles of the rich, also view themselves as "middle class"; they exist between the Indian elite and the poor Indians who live on their day-to-day earnings. While the affluent Indians present their cosmopolitanism in opposition to the 'vulgar' tastes and traditional gender arrangements of the poorer Indians, the "ordinary middle class Indians" focus both on their cosmopolitan aim to define themselves in opposition to the poor as well as on an Indian identity which is rooted in sexual propriety and specified gender arrangements. This defines them in opposition to the 'vulgar' Indian elite (ibid.: 18). The "ordinary middle class Indians" often have a college degree and a good job but lack the English language skills and global connections which would allow them to be part of the global economy (ibid.: 44). Their positive notion of their middle class status centers on having a house in a neighborhood with other "middle class people" and on exhibiting signs of being a member of the middle class such as cleanliness, nice clothing, a healthy appearance, etc. (cf. Derné, 2008: 45f.).

But while globalization processes have tremendously transformed the life possibilities for the urban English speaking elite, the effects on "ordinary middle class Indians" have been limited (ibid.: 47). It is in this context that the "non-élite", "non-cosmopolitan urban Indians", the so-called "ordinary middle class", "the non-élite middle class" or, more theoretically, the "locally-oriented middle class" (ibid.: 44) have been unable to take off with the global economy and culture and have therefore been transformed only in a modest way by globalization processes (ibid.: 16f.). Rather, it can be concluded that the "ordinary middle class Indians" are highly aware of the widening gap between themselves and the more privileged and thus they worry about the threat of real poverty and the loss of the few advantages they have. Seeing the desperate conditions of the poor, the ordinary middle class thus feels highly insecure at the present time (ibid.: 45).

4. Concluding Thoughts

To summarize briefly, it is evident that the process of economic advancement cannot be detached from the cultivation and enhancement of social opportunities on a more widespread basis. Education and other social systems are essential elements for bringing forth human capabilities and ensuring life quality. These capabilities can help in generating economic success of a more standard kind, which in turn can contribute to enhancing the quality of human lives in general (cf. Sen, 2006: 197f.). There are over 25 million children in India who do not attend school, the country currently has the largest illiteracy rate in the world with over 300 million illiterate people; its adult illiteracy rate is around 39 percent (cf. Murthy, 2009: 10). India therefore needs employment opportunities which are not in software development, quality education outside top universities and the development of an infrastructure in order to build a bridge between its two divided worlds (cf. Muscat, 2006: 1).

This leaves the question whether India's economic success can be undermined by its lack of inclusiveness and therefore leaves the country behind in terms of global participation. Conversely, is India destined to be an economy with great prosperity and business success which co-exists with extreme poverty and economic failure as it seems to be now? The truth about India's prospects probably lies somewhere in between these two extremes. However, almost certainly, many problems will remain for a very long time (cf. Smith, 2008: 168). Concluding, it is possible to refer to the famous Indian entrepreneur Nandan Nilekani (in Smith, 2008: 133) who argues that in the next ten years there will be spectacular changes and India will be at the forefront of this new technological revolution. Nilekani argues that there can be no turning back for technology, and there can be no turning back for India. In his opinion, it is necessary to design public policies that are humane and equitable or, in other words, reforms with a human face.

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Multidimensional evaluation in higher education

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Abstract

The present abstract concerns research results connected to a National Research Programme, entitled The evaluation of teaching in higher education, developed in the period 2003-4 with R. Semeraro as national director, aimed at exploring bottom-up approaches in evaluation processes. The national research programme was carried out with the joint work of professors and researchers of several Italian universities (local research groups: Bologna, Lecce, Padova, RomaTre, Salerno, Torino Universities) whose aims lay in analysing the different evaluation models underlying the diverse conceptions of academic quality, highlighting the widening gap between policies and scientific research results produced in some universities in different areas of the world. The frame of reference is connected to the international processes leading European countries to policies for the creation of a European Higher Education Area (EHEA), according to the prevailing global trends (Bologna Process, International Network for Quality Assurance Agencies in Higher Education - INQAAHE). The results of the local research project of the Department of Educational Sciences of Padua University entitled Multidimensional evaluation of teaching in higher education (Research group: Raffaella Semeraro (Coordinator), Cristina Amplatz, Michele Biasutti, Ettore Felisatti, Marina Santi, Emiliana Bonanno, Elisabetta Ghedin, Debora Aquario) set out to evaluate the reliability of a multidimensional approach to teaching evaluation in higher education, according to international research directions. The results derived from interviews with students and professors from some faculties of the Padua University strengthened the multidimensional approach validity, producing evaluation instruments connected to collaborative evaluation, where teachers and students become active actors in evaluation processes. These same results aroused the interest of the Governing Council of Padua University, which promoted a new project about Teaching self-evaluation, started in 2006, developed in 2007, and now still running. Under the same direction of R. Semeraro (invited by the Rector for the project "The evaluation of higher education teaching and the accreditation of courses of study"), it is aimed at focusing the attention of the academic teaching staff from all faculties, on a teaching self-evaluation tool, which was developed following up on a comparative analysis of similar tools in use in major universities in the world. At the end of 2007, all academic teaching staff from thirteen faculties were sent the aforesaid evaluation tool, developed by a working group including representatives from all faculties. Academic teaching staff yielded answers amounting to 60% of the overall teaching population of the Padua University. Data results show evaluative criteria transversal to all faculties together with specific criteria linked to each faculty.

Keywords: Higher education – Evaluation

1. The University in transition

The reorganization of university systems in Europe and the United States indicates the presence of a period of profound transformation in educational planning and the organization of university studies, strictly deriving from

profound social changes. Among these changes one notes the ever-increasing need to use procedures and instruments for evaluating the university system in general, and the educational offerings within the universities, with a view towards evaluating not only the quality, efficiency and efficacy, but also in consideration of the beginning (or the stabilization, in some cases) of a new rapport between university education and social and professional needs. In the last two decades in particular, on both continents, here considered as a frame of reference (Europe and the United States), there has arisen a managerial paradigm deriving from the affirmation of a capitalistic logic, leading to the diffusion of a culture that assumes the market principles as key points of reference, generating attention to the relationship between costs and benefits, to competitiveness, to the primary importance of business even in the management of public services. Naturally there are differences in the weight that these principles carry in the European and American environments (and within each of these), but there are also interesting similarities to point out, in consideration of the fact that these similarities constitute the justifications of models and procedures of evaluation of the productivity of higher education. The role of the university in the everyday social context is changing, due to political and economical transformations within society, but also due to the internationalization of development systems, the massification, and modifications of culture and of communication and information systems.

Performance models are imposing their importance on the international level in advanced capitalistic countries (Harris, 1998); such models are found among various ideologies that justify university reforms, new forms of public administration, pressures deriving from social progress, which are all factors pushing towards the evaluation of these performances, requiring institutional accountability, stimulating the distribution of needed services, creating systems of evaluation that borrow the same criteria used in the world of management, business and the market, and apply them to the university.

2. Social change and reconfiguration of academic profession

Institutional management presupposes new forms in the distribution of power and decision-making and has consequences in the necessary reorganization of the universities, creating difficulties in the relationships among the political, economic and entrepreneurial classes (which can have weak or strong strategic visions regarding the role of the universities in the development of the country), the academic world, the administrative and management structures.

The typologies of decisions and of activities of the academic body change, the rapport between research activity and didactic activity mutates, professors' work conditions are transformed, so that the economic-financial aspect is becoming more important than the traditionally central dimension in the university, tied to the primacy of scientific research as the foundation for theoretical and practical education of students.

Regarding the impact of these transformations onto the university context, the change in work conditions, recruitment systems for the academic staff, of the status, functions and role of the academic staff, and the progressive divergence

between research and didactic activity, it is interesting to compare the results of surveys conducted in the United States and Europe.

In 1996 Philip Altbach published a study commissioned by the Carnegie Foundation (Altbach, 1996) regarding the changes in the profession of university professors due to the profound transformations in the social situation. The study, across fourteen states (the United States, and several European countries) indicates the presence of growing problems in academia stemming from the change in the essential roles of research and teaching.

At the same time, Richard Chait, director of the Harvard Project on Faculty Appointments at Harvard University, analyzed the terms and labor conditions of professors in American universities, identifying the difficulties. Later the general plan of the research was applied in Europe and published in a special edition of the journal *Higher Education* (Altbach and Chait, 2000), revealing the current problems of the academic profession, with reference to several European nations (France, Germany, Great Britain, Italy, the Netherlands, Spain, Sweden). On the basis of these problems, today the relationship between general transformations of university and globalisation is debated (CERI, 2009). These transformations are induced by the current social changes at national and international levels. The need to reconfigure the academic profession is indicated, yet at the same time the deep difficulties involved are revealed. It involves, in fact, creating and stabilizing a delicate equilibrium between the traditional characteristics of the university in the social context (places designated for the development of scientific research and higher education) and the pressures deriving from political and economic factors, from the change in the relationship between the state, market, and academic hierarchy, themselves found within a context of decisions that are increasingly involved in the processes of internationalization. One continually affirms, based largely on these processes, the request to apply typologies of productivity that come from the private sector to the university activity, transferring the same logical frames used for material production to cultural production. In parallel, criteria, methods and instruments of university evaluation and of the complex activity that characterizes them, are transferred from the private sector to the public.

3. Quality assurance in higher education

The criteria and methods that are actually used in the European context to evaluate the university systems are centered around the concept of quality. This concept is particularly highlighted in the Bologna Process started in 1997 and includes today almost 70 countries belonging to International Network for Quality Assurance Agencies in Higher Education.

The main European body concerned with this topic is the European Association for Quality Assurance in Higher Education.

Quality assessment of the university system in its various articulations is similar in some aspects to the management model for quality described in the European Foundation for Quality Management. The fact that key terms used for quality assessment of universities and the units of which they are composed are

analogous to the terms used for quality assessment in business, is striking. In both cases one refers to quality assurance, quality assessment, quality audit, and these terms are fundamental aspects of total quality management.

Naturally the central problem concerns the meaning attributed to the term "quality." The changes arisen in the modalities of conceptualizing such terms can be schematized, as regards material production, in a process involving four fundamental logical phases, representing the levels of development and sophistication of quality management (Dale, 1999; Garvin, 1988). Referring to a historic reconstruction of the evolution of the concept of quality (Juran, 1995), one can identify the following phases leading to a progressively more complex concept: product control, quality control, quality assurance, total quality management, or better, the total management of quality, or even better yet, total management for quality.

Considering the first phase, product control corresponds to a quality management idea based on auditing (by means of measurements, tests and exams) the uniformity of product characteristics, so that that which does not conform is discarded, reprogrammed or rejected (removal of non-quality). The second phase, quality control, signals an evolution with respect to the first phase, and corresponds to a widening of the object of reference for quality management, in which attention is focused on the production process, rather than only on the product. The third phase, quality assurance, extends the focus even further, from the production process to the whole of the activities that interact with such processes and the respective products (the subsystem relative to the life-cycle of the product). The fourth phase refers to the actual concept of total quality management, which corresponds to such a management approach that on one side expands the object of reference even further (not only the subsystem relative to the life-cycle of the product, but all the activities of the business system in its entirety), and on the other side enriches the concept of prevention of non-conformity of the product, with the idea that the continual improvement of the performances should not only be focused on client satisfaction, but represent a fundamental competitive weapon of the business system itself.

Naturally, even this last and more complex type of quality management, identified as total quality management, entrusts itself to different interpretations of the characteristics of such a form of quality, strictly connected to the meanings attributed to organizational culture and its values. Thus it is necessary to shift the attention from the productive process as such to the organizational culture, which constitutes the frame of reference in which this process is at work. In general, the objective of evaluative procedures is that of expressing judgments on the carrying out of various processes in the organization, analyzing both the response of these processes to their goals, and the modalities of possible change of the processes (in case of unsatisfactory judgment of the situation), or the stabilization of the processes (in case of positive judgment). Regarding the dimensions to be judged, a collection of competencies has been built, and methods and survey techniques, which are identified with the term evaluation.

It emerges the importance of considering the evaluative processes as interactive negotiations, rather than as rational courses of information collection. Only by avoiding such rationalist prejudice can the conditions be created to allow different individuals, who express differing interests and world views, to identify dynamics of interaction and integration, from which to begin the evaluative activities (and next put them to the test, with different procedures, internally complementary though diverse). In this perspective it would be necessary to ask oneself if the various interested parties should comprehend primarily the why of the evaluation and then derive from these justifications the evaluation methods. On the contrary, treating the evaluation as an ensemble of methods and neutral instruments, one can produce data that are formally unassailable from a technical standpoint, but ineffective from the standpoint of making real change in the university, which is what the evaluation should be aiming at.

In fact, the true challenge before the universities in the twenty-first century is a profound transformation of their meaning in contemporary social contexts, which should spur them towards new values and new forms of knowing for the promotion of the knowledge society. In fact the educational end of the university needs to be redefined, repositioning the significance of education in the public sphere, directed towards a renewal of the social context to affirm the democratization of knowledge. In this perspective the evaluative processes should aim for a more profound assumption of responsibility by the decision-makers and all those involved in the university activity, but above all they should be seen as protagonists having various statuses in the projection and realization of such processes.

4. Evaluation of University Teaching: a National Research Project

The scientific literature on teaching evaluation, very articulated and rich at the international level validates the need for a complex approach, with different forms of participation so that the evaluative processes reflect as much as possible not only the multiple dimensions of university teaching, but also the participation of more subjects and the involvement of the universities.

There are many instruments designed in an increasingly precise way to make the evaluation by the students more adequate. They range from those, among the most noted, designed by P. Ramsden (the Course Experience Questionnaire), by P.A. Cohen (1981), by H.W. Marsh (the Student Evaluation of Educational Quality Questionnaire – SEEQ) (Marsh, 1991), to those more recently designed by research groups that work in this field, mostly at the European, USA, Australian, and Canadian university campuses.

The prevalent use of student opinions is seen as biased, beyond generating cautious attitudes regarding the validity of the data, since the different characteristics of the students undoubtedly condition the potential comparative value of their responses. Regarding this, other researchers propose other models for university teaching evaluation, broadening not only the evaluative modalities, but also involving more subjects in the evaluation. Regarding this, teaching evaluation procedures are increasingly used that derive not only from the administration of questionnaires, but also from group activities of peer evaluation and/or self-assessment, referring to both students and professors, or procedures

that involve the institutional subsystems of the universities (institutional self-assessment), in the first place the faculties (Arreola, 1995; Centra, 1993; Mills and Hyle, 1999).

From the literature emerges, the attention to the actual contexts of activities (that generate a community of practices), recognising the necessity to involve all the agents working in educational contexts, the adoption of evaluation procedures and techniques that are multiple and differentiated, following a multiperspective approach that responds to the criteria of quality evaluation in institutional contexts, in each of which the organizational culture, already present in the involved subjects, plays an important role, a culture that is transformed by the soliciting of innovation deriving from the mode in which the institutions themselves operate.

What has been presented and discussed so far indicates the need is born to question oneself about the possibility of exploring and putting to the test, even in the Italian universities, the application of criteria, procedures and instruments of teaching evaluation that should be, on the one hand, adequate to the complexity of the teaching process (and that would foresee therefore a multiplicity of methods for collecting data), and on the other, that demonstrate themselves to be capable of considering the differences that the specific contextual situations impose on the completion of didactic activity.

In order to find an answer to these two types of questions it was designed the proposal for a national research project regarding Evaluation of University Teaching (*La valutazione della didattica universitaria*), coordinated by the author of this article. The biennial project (which began in 2003) was financed jointly by the Ministry of Instruction, University and Research and by the universities/faculties/departments of the campuses involved. The Padua University (Padua) became the national coordinating body, promoting the collaboration with five other Italian universities (Bologna, Lecce, Roma, Salerno, Torino), within which are active research groups coordinated by professors who are participating in the project.

The project has as its realm of consideration the Italian situation, in which the recent reform, which brought about a shift in the courses of study within the two types of degrees of first and second level (and of the different educational objectives that characterize them), has changed the significance of the courses and changed the task of the professors, burdening them also with the considerable task of reorganizing the didactic activity within the faculties.

The complexity of the task increased for the professors, who must measure up to profound processes of transformation and reconfigure their own activity, which cannot be like that previous to the reform, but cannot at the same time be completely dissociated from their prior experiences. It follows that in university teaching evaluation one should keep in mind this new articulation of educational processes, putting the general criteria with which to evaluate the actual university teaching processes in relation with the educational goals specific to these processes, as well as considering the actual contexts in which the didactic activity is carried out, and that is, in the single faculties.

For the evaluation of university teaching, in addition to the paradigm of complexity, which leads now more than ever to a multidimensional vision of the teaching processes (and of the consequent need for multiple evaluative procedures), one must thus consider also the paradigm of contextuality (the faculties as organizational contexts of teaching; the courses of study as the educational plans to be referred to, characterized by cultural and specific professional coordinates).

The hypotheses, which will be tested by means of the research project, concern the connection between general and specific dimensions of university teaching that can be considered a process characterized by complexity.

If the connection between general and specific dimensions of university teaching is proven, one could draw the following conclusion: criteria, methods and instruments for teaching evaluation that are only uniform, or only differentiated, are not fully adequate. The first because they are of a higher character, since they are applied to aspects that are similar among all the university courses proposed by the universities; the second because they are too dependent on the specific contexts, like those that could be used by the individual universities for the internal teaching evaluations. To respond adequately to the goal it would be necessary, on the contrary, to proceed to the construction of lists of indicators deriving from the intersection of these two types of criteria (and to the standardization of consequent evaluation instruments), as well as involving the contribution of various subjects, institutional and non-institutional (universities, faculties, professors, students) for an adequate evaluation of university teaching. The articulation of the specific projects of the research groups involved allows analysis from this perspective of the most important dimensions that characterize university teaching today, from which can be constructed adequate methods and evaluation instruments. With this aim, each group will make a comparison between several faculties within their respective universities, will keep in mind the actual type of degree, and will involve the most directly interested parties in the research, in the first place professors and students. Each of the following research groups will analyse in depth the possible intersection between general and specific aspects of university teaching.

The project aims lay in analysing the different evaluation models underlying the diverse conceptions of academic quality, highlighting the widening gap between policies and scientific research results produced in some universities in different areas of the world. The frame of reference is connected to the international processes leading European countries to policies for the creation of a European Higher Education Area (EHEA), according to the prevailing global trends (Bologna Process, International Network for Quality Assurance Agencies in Higher Education - INQAAHE). The results of the local research project of the Department of Educational Sciences of Padua University entitled Multidimensional evaluation of teaching in higher education (Research group: Raffaella Semeraro (Coordinator), Cristina Amplatz, Michele Biasutti, Ettore Felisatti, Marina Santi, Emiliana Bonanno, Elisabetta Ghedin, Debora Aquario) set out to evaluate the reliability of a multidimensional approach to teaching evaluation in higher education, according to international research directions. The results derived from interviews with students and professors from some faculties of the Padua University strengthened the multidimensional approach validity, producing

evaluation instruments connected to collaborative evaluation, where teachers and students become active actors in evaluation processes.

These same results aroused the interest of the Governing Council of Padua University, which promoted a new project about Teaching self-evaluation, started in 2006, developed in 2007, and now still running. Under the same direction of R. Semeraro (invited by the Rector for the project "The evaluation of higher education teaching and the accreditation of courses of study"), it is aimed at focusing the attention of the academic teaching staff from all faculties, on a teaching self-evaluation tool, which was developed following up on a comparative analysis of similar tools in use in major universities in the world. At the end of 2007, all academic teaching staff from thirteen faculties were sent the aforesaid evaluation tool, developed by a working group including representatives from all faculties. Academic teaching staff yielded answers amounting to 60% of the overall teaching population of the Padua University. Data results show evaluative criteria transversal to all faculties together with specific criteria linked to each faculty.

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Appearance of social organ for education in Iran Saljuks era and subjugating Shi'ite learning

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Abstract

Objective: Education is one of manifestations of Islamic and Iranian civilization which has main role in universal education history. Educational course of Iran in Seljuks era dedicated permanent scientific and religious works to the world. Schools and training institutes such as (Nezamieh schools) have been founded in various cities of Iran. Result: continuation of Iranian Shi'ite movement in Seljuks era was transformation of scientific institutes into classic education organ i.e. school, which is the root of first European universities. In these schools the main activity was undertaken by religious organ and training organ gained state quality. Training methods gained it's classic form and performed as a pattern throughout the Islamic world. Methodology: This work has been done by description and analysis of existing reports in books and articles of middle Ages history. Conclusion: Training movement in Seljuks era has succeeded in creating appropriate and successful function to refining economic, politics, military, religious and social conditions of Iranian society and was the routes of Iranian training evolution and deriving various classes of Iranian people.

Key words: universal - school is society

Introduction : entrance of budian to Iran

Seljuks (1040 – 1194, A.D.) was a group of Transoxania Turks that were entered Iran by calling Baqdad suni caliph for falling Iranian government, Buyids (932 – 1062 A.D.). They caused politically and culturally great changes in Iran, Transoxania, Asia Minor and Baqdad. They ruled a big area from Transoxania to Mediterranean. Baghdad caliph named them as Iranian kings. They couldn't control the government because they were budian and they were missing the liability of management and Aministration. (Brockelman, P, 137). Therefore they offered it special affair of education to Iranians ministeres. They reached the great scientific and educational revolution which was started by Buyids, to its climax. Its top cultural revolution of Saljuks period was appearance of Islamic classic educational system.

Background of Islamic education and shi'ite position on it

Education is one of clear aspects of Islamic culture and civilization and it returned to 900 years ago. According to Islamic civilization and culture, they produced five domains; Arabic, turkey, Iranian, European and Bebers. Their works changed classic forms and special instruments and means are used to teach Moslems in organizations. Islamic education is one of manifestations of

Islamic thoughts that were formed by unmoslems' national civilization and cultural heritage. It derived from impact of Jondishapur on Islamic educational system and it is used in different parts of science texts and educational organization and has been demonstrated in historical texts but the nature of Islamic educational system is different from educational organization of pre-Islamic civilization because Moslems have been faced with great changes in quality and quantity of educational organization. They have created a special form of pivot-God educational system. And its aim was making human. The first Islamic university was in universal mosque of Medina, kofeh and Najaf.

Shi'ite played main role in making Islamic education organization. The first universal center for teach of islam science established in medina in period of imam Baqir (lalani, p, 60, 162, 137) The character of imam Baqir (712. A.D) and imam Sadeq (765 .A.D) had effect on classic forms of scientific centers in kofeh and Egypt and Najaf (kofeh community has been compared with Cambridge university, (Ghonaymeh, P, 110). They are similar to European universities. Other cities such as Ray, Qom, Basreh, Hamedan, Kerman, Nyshabour were active with Islamic growth in development of Islamic educational system. The first connecting point of Islamic educational history in MEDINA, KOFEH, BASREH was foundation of Baqdad's NezaMeyh and Bytol-Hekmah (house of knowledge and philosophy).

Shi'ite and Iranian population, Akhvan AL-safa (Berathern of pure), was a new point in Islamic educations. Iranian and shi'ite educational potentials that were low and hidden during 3 centuries, reached its top point in Alboveh era that is Islamic educational classic period. Its great results were shown in texts and scientists. The first step for foundation of independent educational organizations was Darolalem institute (house of knowledge). The Islamic educational scientific language was indicated by producing numbers of scientific texts. When Iranians were in top of Islamic education, they faced saljuks attack because Abasiad government ordered to native of oghoz (Branch of turks) for controlling the movement of Iran- shi'ite education in Iran.

Development of Islamic educational system was in top during seljuks era so educational institutes and instruments and teaching and educational methods. It obtained the final form of its classic. In Iranian –seljuks educational system, shafei Sunnite conducted its political- religious aims in educational forms stayed from Bovehi period Shi'ite in universal mosques and darolelm (house of science) These institute combined by khajehNzamolmolk and produce the school.

Iranian educational system of seljuks era is a perfect model of Islamic education that has been common to ten century in Islamic period and that was the best human production in universal history of education. The general characteristics of this system are Iranian educational movement and its shi'ite education.

The change of Institute of educations and religions according to sociologists' view points

Before introduction of educational organization in Seljuks era, we will pay attention to education institute of cultural production, that are just for development society of humanity. According to my view point, it must be said there is no independent educational institute in the Seljuks period. Just, they were interchanged. We see the centers belonged to Seljuks government and must perform political purpose. They didn't have impact on proving social relation and transing cultural inheritance. They didn't follow the development of scientific research. Xiiam (1110 A.D) (kendy, P, 26) was the only one and his effort did not led to establish independence in education in iran and did not create peaceful relations Between Iranian natives. They didn't help creating religious unity and experimental science was stopped among Moslems and started Moslems' though decline.

The single acceptable problem about this center is successful form of the school as paradigm that has stability and continued in limited parts of Islamic world to several centuries. Its conditions and traditions were permanent and stable. There weren't other organizations with educational institute of the seljuks. It spent most time educational activities for special political purpose. Its most important duties is protectingthe profit of Abasid government and preventing its extinction (spuller, p, 131).Therefore, in the era of seljuks religious institute and government did work of educational institutes. And they have conducted education to each other (Holt, p, 212).

Movement of schools

In Islamic world, educational process resulted from Islamic east world and Iranians were its leaders. School was one of the gradual developments of Islamic educational systems in 5 century (Borockelman, P, 170). It settled affair Nazamoalmolktoosi, so that changes to common cultural activities. The present and next government mentioned making school and placed it in their work and try (shahidy Pak, P, 97). any athure called seljukskingdom has remembered their making school (Ravandy ,P ,137). It indicates prosperity of the government. Ibn ToqTaqi named that government as wonderful government (Ibn Taba Taba, P.25) because IT SHOWED developing and expanding of making school. This Iranian school is in top of the cultural phenomenon and called main agent of Seljuks.

Iranian cultural government has started in the Arabic conquest of Iran when Islam appeared.

However it is clear, iranians reached Moslem'education system where it composed with Maktabkhaneh(kindergarten) and mosques and darol elm (house of science) and complex needs in education in 5 century and in 12 A.D. The school created the top level of moslem's education. Its model was offered by Nezamo Almolak and it was followed in Islamic worldwide for some centuries. Islamic world reached west through the method and it was a model for the great

European universities (sarton , v1,p,62). Sobky has said about making school of nezamolmolk (sobky, v2, p. 255). It included people from any classes. The end of the Nezamyeh work was in Isfahan (active in 1292 A.D). There are documents about Harat and Nyshabour Nezamyeh School.

Shi'ite Instruction and education

Organization of the educational shi'ite was born in Iran and obtained its peak of magnificence in the buyahide period. Ibn sina is production of the shi'ite-iranian educational movement and it occurred when the affair was controlled by kings of the Seljuks. Educational and cultural systems and organizations of the Seljuks government that was opposed shi'ite educational development in Iran couldn't stop the educational and research process of the shi'ite. In Iran, the many abbasidcalif and Seljuks government agents were shi'ite. In spite of sunni's oppositions, they were successful in their works. The most important of the ministries if the Seljuks government belonged to Iranian central area. There were iranian ministries in Seljuks government so that some researchers supposed Khaje Nezamolmolk, the top seljuks agent, was shi'ite.

Mjd Al molk qomi (1034 A.D) was vindicator of saljokingdom the Bar Kiarq and Malkshah. Anoshirvan Masod kasshi was the Seljuks's minister and Abasi's ministers who offered services to shi'ite. Many buildings and saint places were re-made in this period. Ibn Alqami (1256 A.D), Mo'staem' minister , Ababasid calif established a big library in Bagdad. And seyfo-AL-doleh sadegh ibn mansore hali (1107) was a shi'ite king and founded some school in Azarbayjan just for shi'ite. Report of the book NAQZ (book of 12 A.D) indicated there were educational centers in QOM , KASHAN, RAY , AVEH, VARAMMIN and they were research centers for shi'ite (razi.p,p,34,35,194,200).

The great holy places, tombs Haram, Mashhad of sanit imams and his children were active educational centers in Seljuks era. There were schools in MASHHAD, QOM, KARBALA , and NAJAF (Al-doja yli,p100). In their schools and mosques were held studing meetings. There were some shi'ite educational centers in some references. The scientists' houses were the best places for education in the Seljuks. The book Naqz indicated there was a teaching place in the shirin of Ftemeh Masurnah in Qom (Razi, p, 195). It is usual to hold the study meeting in the house of scientists and person of distinction in QOM. This book pointed it out several times. IBN HAMAMI (1407 A.D) house was remembered as great instructing center in BAQDAD (baqaday .p, 140). SAYYD IBN TAVOS (1264 A.D) was the center of shi'ite education in EGYPT and he wrote many shi'ie texts at that time. He introduced some of the shi'ite Astronomers in the book with the title "FARJALMAHMUM FI ELM AL NOJOM". Ali IBN ZEYD BEYHAGHI wrote TARIKH BEYHAQI, LOBAB ALANSAB.SHIKH MONTAKHABOAL DIN (1111 A.D) was focus of the shi'ite instructions in the SELJUKI period. He wrote ALTADVİN FITARIKH QAZVIN AND ALFEHREST. ArbLi (1229 A.D) wrote some of the educational shi'ite texts.

Appearance of Islamic Classic Educational System

Seljuks educational system was used for the educational centers , for example, in financial fee , social situation of the professor and students and interpersonal relation between professor and student and instructional methods and educational texts for several centuries. The Islamic educational system became classic from the end of the 4 century on. It produced a stable and fix form in Islamic lands. There is a report related to Islamic east world in 1585, zynoAldin Ameli (1559 A.D) one of the shi'ite scientist (AL-ZEREKLI, P64) who write this report in the book with tittle: «MONIYEH ALMORID». He was a specialist in education and visited ASIA MINOR, IRAQ, and EGYPT, and he collected something about educational conditions in Islamic lands. He asked some question from educational indirections in any parts. He knew all of the sciences and was teach in most of the Islamic land. He went to KHORASAN and traveled to EGYPT in 1535 or 1595 A.D and to HEJAZ in 1538 A.D and IRAQ and holy places in 1539, and he entered JERUSALEM in 1541. He resided in CONSTANTINOPLE in 1545 A.D. He visited GHAZI ASGAR MOHAMMAD IBN GHOTBOLDIN ROMI in Asia Minor in the seljuks era and asked him some questions about the regulations that had been ruled to educational institutions, and studied professors and teachers' daily notebooks.

Then he provided a report from the educational centers. He could teach in NORIYEH BALBK SCHOOL allowed by KING OTMAN EMPAIR BAYZID. Then he left there and went to ESKEDAR. He was arrested there because of the establishing the shi'ite Islam and was killed in ESTAMBOL. Anyway he collected pieces for describing Islamic educational system. It is a report for 10 century of Islamic education and it shows the classic system of Islamic education. In (amin, v.7, p.145, 151) ASIA MINUR, SHAMT(Syria, Lebanon, jordan), this book indicate the educational Islamic organization has been classified in 12 century of A.D an continued to 18 century of A.D the compares of any character of the educational systems in Islamic word from 12 century of A.D to 18 century of A.D presents their similarities.

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Delivering web-based courses to high school students in isolated aboriginal communities: Challenges and options

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Abstract

The need for distance delivered education in rural regions within Canada is well recognized and is of particular importance in isolated Aboriginal communities that struggle to offer a full range of courses needed for high school graduation. Completion of such courses directly impacts student graduation and transition into the work force. This paper will report the results of a community-university research alliance project that is examining ways to increase Aboriginal student success with e-learning. Both qualitative and quantitative data have been gathered to ascertain current success rates in e-learning and also determine appropriate interventions that could positively impact student success. The results were analyzed using motivational, contextual, communication and organizational factors as constructs. Key findings indicate the need for a coordinated delivery system, on-site student monitoring, the development of student attributes conducive to independent learning prior to their senior high school years, and developed expertise with distance learning technology.

Keywords: Web-delivery - e-learning - aboriginal education - rural education

1. Introduction

The delivery of quality programming to rural schools is an increasing challenge in the Canadian context. With a large geography, harsh climates and a population base that is shifting to urban settings (Statistics Canada, 2008a), the small and dispersed rural population results in low school enrolments with limited educational resources and appropriate numbers of trained teachers. Schools are subsequently challenged in their ability to provide even a basic high school program, much less a comprehensive one that will afford diverse post-secondary options (Eggertson, 2007). Additional complexities compound the delivery of needed high school education, including the funding of education for Aboriginal people in an era of tighter budgets, accountability and cost-effective programs.

Data from Statistics Canada (2008a) show that the Aboriginal population is mushrooming at a pace more than six times faster than the general population and now comprises 3.8% of the total population. It is also a group that has been traditionally haunted by systemic social, economic and health issues as well as very limited success with formal schooling (Council of Ministers of Education, 2004). Education concerns are so widespread that it led Canada's Auditor General to conclude "that a significant education gap exists between First Nations people living on reserves and the Canadian population as a whole and that the time estimated to close this gap has increased slightly, from about 27 to

28 years” (Office of the Auditor General, 2004, Section 5.2). Such issues add to the challenge of developing and delivering a viable high school education with successful results.

Given the scarcity of school resources to deliver a full program for graduation in many the isolated rural locations, e-learning emerges as a potential solution which will help resolve the challenges facing the delivery of quality education. It is seen as being able to transcend the limits of geography and provide access to education in rural communities (Cummins & Sayers, 1995; Mood, 1995; Rossman & Rossman, 1995; Dillon & Cintron, 1997; Sanchez, Stuckey & Morris, 1998; Rowlandson, 2000; Galway, 2004; Ramirez, Aitken, Jamieson, & Richardson, 2004; Bale, 2005; Grossman, 2005; Smith & Magee, 2006). Greenall and Loizedes (2001) identify five important benefits and the potential of e-learning for Aboriginal peoples: (a) attraction and retention of students; (b) enhancement of learning, knowledge and personal development; (c) contribution to self-sufficiency; (d) protection and preservation of culture and heritage; and (e) community economic opportunity. In the Canadian context, Belcourt, et al. (2005) report that educators and policy makers also see it as a set of powerful new tools in promoting Aboriginal educational participation, retention and graduation rates. However, good acceptable results are often elusive despite the many cited potential benefits of e-learning.

Also, despite the possibilities that e-learning may provide for rural communities and Aboriginal students, there are challenges associated with its delivery. According to Downing (2002), Aboriginal communities in Canada face a three-fold challenge: (a) a learning divide, which refers to low relative access to and completion of education and training; (b) a socio-economic divide, meaning poor economic, health and social conditions; and (c) a digital divide, meaning less connectivity, access to internet and use of computer technologies in homes and communities at large. These sentiments are echoed by Greenall and Loizedes (2001) in their Pan-Canadian study of Aboriginal e-learning and its relationship to health, socioeconomic development and education. They discuss five challenges to the implementation of e-learning technologies in Aboriginal communities: (a) insufficient financial resources; (b) inadequate human resources and technical support; (c) limited physical and telecommunication infrastructures; (d) lack of an enabling social and economic environment; and (e) limited control over education and training. Thus, while a consistent and strong message in the literature is that e-learning is a positive contribution to the educational and social challenges that Aboriginal rural and remote communities face, it is one that requires careful attention and improvement at all levels in order to address student success rates. The need for the latter is very evident and forms the basis for our research. This paper outlines the results of an initial investigation that was the first phase of a three year study to identify and implement changes to address e-learning success for Aboriginal students in high school.

2. A Provincial Context

The Canadian Province of Newfoundland and Labrador affords an excellent context within which to explore the use of e-learning among Aboriginal students

at the high school level. With its rural and dispersed population, e-learning has been in wide use in the Province since 1998 and continues to expand and grow in popularity (Government of Newfoundland, 2008). The Province, located along Canada's Atlantic coast, has a population of approximately half a million people, 4.1% of whom are Aboriginal (Statistics Canada, 2006). The majority of this Aboriginal population lives along coastal Labrador, an area identified by the 2003 *International Adult Literacy and Skills Survey* as being well below the national average in all areas of literacy (Statistics Canada, 2003). More recently, the 2007 *Program for International Student Assessment (PISA)*, (Statistics Canada, 2006) identifies students in the Province, particularly rural and Aboriginal students, as continuing to consistently perform below average ranges in achievement. The largest Aboriginal group in this region is the Inuit, a group of indigenous people of Canada's north who are now self-managed by the Nunatsiavut government via a federal funding agreement with the Government of Canada. Numbering at approximately 5500 (Government of Nunatsiavut, 2010), the Inuit have a median age that is 11 years younger than the national average, 28.98 years compared to 40 years for Canada as a whole (Statistics Canada, 2008b). Like their national and international peers, the Inuit have struggled with formal education; and the isolated schools of these rural communities are challenged to recruit qualified teachers in a number of disciplines. As a consequence, they have turned to e-learning as a viable and alternative delivery mode.

In recent years the Province as a whole has, for many high school courses, also increasingly relied on e-learning to ensure comprehensive secondary programs for rural communities. Beginning as a pilot in 10 schools in 2001, the model of delivery has grown rapidly to where 39 different courses are now offered to students across the Province with 1498 individual course registrations during the 2007-08 school year (Department of Education, 2008). It affords students in rural communities the opportunity to take courses needed to fulfill high school educational requirements as well as the option to take elective courses not normally offered in their schools. The Provincial Department of Education unit, the Centre for Distance Learning and Innovation (CDLI) is responsible for this e-learning initiative. Courses are prepared and delivered by specifically recruited e-teachers and delivered through a web-based synchronous format. Consequently, students graduate from schools in rural settings where a growing portion of their high school experience involves distance-delivered e-courses. In the Aboriginal context, certainly in coastal Labrador, e-learning is seen by school district administrators as being essential to ensuring even basic program options for students.

3. Current Study

In attempting to seek improvement and give attention to a mode of instruction that is increasingly seen as essential, this study sought to explore the experiences and perspectives of Aboriginal students who are currently availing of web courses in coastal Labrador, along with their parents and teachers. The goal was to identify factors that could potentially enhance the use of web delivery in these communities through increased student success rates and inform educators engaged in the use of e-learning for other Aboriginal youth. The study

was a part of a larger Social Sciences and Humanities Council (SSHRC) of Canada funded Community-University Research Alliance (CURA), established at the Memorial University of Newfoundland to foster innovative research, training, and the generation of new knowledge on the use of e-learning, particularly as it relates to opportunities in rural, isolated areas. The focus is on K-12 students, and directly involves consultation with partners within the alliance. The main goals of the CURA are to build capacity for high-quality research in e-learning, increasing the amount of high quality research in e-learning, and enhance effective knowledge exchange in e-learning within community partners and stakeholders groups.

While Inuit communities are federally funded and self-managed, educational services are delivered via agreements with the provincial government so that students have access to the provincial curriculum. Statistics provided by the provincial Department of Education (2008) identify that, while birth rate in those communities remain relatively stable, there has been a 24.3% decrease in school enrolment due to students dropping out. Likewise, of the approximately 185 students eligible to graduate since 2001, only 71.35% did so and 68.94% of those received a basic high school leaving certificate giving limited post-secondary options. Moreover, of the 66 students enrolled in Grade 6 during the 2001/2 school year who should have been in Grade 12 (the final year of senior high school) during the 2007/8 school year, only 24 (36%) of them remained on track to graduate.

As mentioned previously, responsibility for high school distance courses resides with the Provincial government. These are delivered synchronously throughout the year to rural schools by the CDLI unit in cooperation with all school districts using the Desire2Learn web-based platform along with Elluminate Live. Each course is typically comprised of a mix of students from across the Province, including in some courses, a number of Aboriginal students from coastal Labrador communities. Each session is recorded and accessible to students who may miss any of the synchronous sessions. Also, additional course resources are available online.

In the five Inuit communities included in this study, the 2007-08 school year had 35 students completing 93 course enrolments (total number of individual registrations in web-based courses). On average, high school Inuit students in these communities take 2 or 3 web courses each year, however in some instances this may rise to as many as 6 web courses a year, especially in the very small all-grade schools, to meet graduation requirements. Table 1 presents the enrolments in these five communities, as well as in Labrador and the Province as a whole for comparison purposes.

Overall, the project sought to examine the success of e-learning among this population of students and also to identify factors that could optimize its use. Key informants were identified as teachers, school administrators, parents, and students from those five communities who are directly involved in e-learning. Qualitative data were collected onsite through individual interviews (n=29) and focus groups (n=4) from all students engaged in these courses during 2007-08 and from their parents and school-based personnel. Letters of introduction and consent forms were sent outlining that participation was completely voluntary. Participation rates were exceptionally strong: students 72%, parents 46%, and

administrators and teachers 100%. A research associate familiar with and known in these communities visited each community to conduct the data collection. All recordings were subsequently transcribed and analyzed using a grounded theory approach to identifying emergent themes. In addition, quantitative data was obtained from school district, provincial and CDLI sources to track student attendance and examine student success rates over a four year period, including the year of this study. Final marks for each student in these courses were collected and compared to the average provincial mark for that course.

Table 1: Enrolments in web courses for 2007-08

| | # of Web courses as of Sept/07 | # of Students Sept/07 | Total course enrolments in Sept/07 | # of students June/08 | Total course enrolments in June/08 |
|-----------|--------------------------------|-----------------------|------------------------------------|-----------------------|------------------------------------|
| Province | 39 | 1004 | 1781 | | |
| Labrador | 29 | 76 | 161 | | |
| Postville | 6 | 12 | 24 | 12 | 23 |
| Nain | 6 | 4 | 7 | 4 | 7 |
| Rigolet | 17 | 10 | 42 | 8 | 30 |
| Hopedale | 2 | 1 | 2 | 0 | 0 |
| Makkovik | 9 | 8 | 17 | 7 | 16 |

4. Findings

What emerged was a wealth of data which identifies mixed success rates among students as well as numerous areas for improvement. For the most part, students were successful in that 91% completed their web course, but there were mixed achievement levels in terms of final course marks. Students and their parents reported being surprised that they (the students) were able to interact with their provincial peers and meet with success. They each outlined that such a realization did much to boost self-esteem and encourage continued academic studies. This helped contribute to wide support for e-learning among students, families and educators who increasingly see it as essential to high school completion. A central factor in this success was the quality of the e-teachers, who were widely seen as being extremely competent, helpful, understanding and approachable.

However, results should be interpreted with some caution since it was also noted by school personnel that high dropout rates, low confidence and systemic social issues in the communities result in only the more academically motivated students remaining in school to participate in e-learning and a continued high school education. Such circumstances no doubt contributed to the high (91%) success rate of the study group. A number of factors also emerged from the data that were grouped under the four themes of organizational, communication, motivational and contextual improvements (see Table 2).

Table 2: Areas for Improvement

| Organizational | Communication | Motivational | Contextual |
|--|--|--|--|
| Improve scheduling of all synchronous sessions | Improve communication between e- teachers and parents | Improve student readiness skills for web courses prior to senior high school | Improve the physical space and location for students taking web courses in schools |
| Improve onsite supervision of all e-learning sessions | Improve communication between parents and school | Identify and develop student attributes for success in web courses | Improve technical support |
| Limit student access to distractions such as Facebook | Improve communication between e-teachers and students | Improve design of those web courses that are too text-based | Provide curriculum subject specialist supports for these schools |
| Increase financial support for web courses in school to purchase materials, etc. | Improve communication between e- teachers and school staff | | Provide support for student social and emotional issues |
| Improve onsite technical support | | | |

Many of the organizational factors were related to the limited resources in the region and the demands placed on school staffs. There was wide recognition that supervision and support was a concern since teachers were typically busy with other classes and school administrators were already overwhelmed with their countless duties without the additional burden of CDLI course organization. Such perspectives are partially explained by the reality of small schools with limited staff and space. It was also apparent that individual schools need to cooperate and align their school class schedules so that some students did not have to miss whole or parts of available onsite courses when enrolled in e-courses. The 30 minute time zone difference between Labrador and the island of Newfoundland further exacerbated this scheduling problem in some courses.

Communication concerns stemmed, in part from both the growing interest in e-learning as well as recognition that it was an essential part of the student's high school program. Parents wanted to know more about their child's progress and how they could support success. Students themselves also reported challenges in accessing information, false assumptions that they had the computer literacy skills to use the technology, an absence of available training using some of the technology, and the inability of onsite teachers to help them with many of their

subject specialized courses. The pronounced disconnect between e-teachers and onsite teachers often resulted in scheduling issues, lack of ability of onsite teachers to help students and e-teachers not being informed of events and activities at individual schools. This was compounded in the context of these Aboriginal communities where social issues are part of the reality of the life of students in these schools. These issues formed a significant obstacle as the e-teacher moved on with new curriculum despite disruptions in the school, community and/or a student's personal life.

Motivational issues named by the students themselves included a need for support in terms of being more prepared to participate in e-learning at the high school level. They named text-based curriculum, heavy reading loads and fast paced curriculum delivery as problematic. These issues were exacerbated by the assumption that they had the time management skills and self-discipline to stay on task. In the absence of direct classroom supervision, and in the context of non-directive parenting typical of many Aboriginal families, this added to the challenges of their e-learning experience.

Finally, contextual concerns unique to the region were identified as including band-width availability, technology support for the communities and specialist teachers in curriculum areas to help students. Lack of appropriate physical space in individual schools for e-learning students was a common issue. Students often reported having to use computers in either an isolated space without support or in highly distracting environments such as the back of classrooms where other onsite courses were being taught at the same time. Other concerns included a need for counseling/social support to effectively deal with the ongoing issues which often plague Aboriginal communities and sabotage academic involvement and success.

5. Summary

The findings of this study lend promise to the continued use of e-learning by Aboriginal students and the opportunity to deliver a quality curriculum to isolated populations. Our study findings identified several challenges associated with this mode of delivery along with potential areas for improvement to increase student success. E-learning provides educators with a viable and informed option to complement existing school programs, to access quality instruction in several academic courses, and thereby open access to greater post-secondary participation and opportunity. Equally important, it provides these Aboriginal students in isolated Labrador communities with the opportunity to interact with a broader peer group and realize innate ability and strengthen self-perception.

The organizational, communication, motivational and contextual obstacles identified in this study help underscore the importance of being attuned to the needs of students. It also validates existing knowledge (Cummins & Sayers, 1995; Dillon & Cintron, 1997; Mood, 1995; Rossman & Rossman, 1995; Sanchez, Stuckey & Morris, 1998) that not all students have the pre-requisite personal, scholastic and motivational attributes as well as the technical skills necessary for success in an e-learning environment. One of our most significant findings calls for some curriculum delivery changes at the intermediate school

level to help prepare students not only for the personal attributes and motivational issues required for e-learning success, but for the computer literacy and other skills required prior to their engagement in senior high school courses needed for graduation and/or further education. If e-learning is indeed essential in the provision of quality high school programs in these isolated communities, then educators must embrace this reality and ready students to use the technology more effectively. While the technology affords opportunities, it also calls for careful planning, dialogue and support so that it can properly complement existing school efforts and on-site teaching. Fortunately, several of the identified factors related to improving student success are organizational and communication issues that are not particularly difficult to address.

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Leading Toward Change in Higher Education: A Personal Response to Economic Conditions

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Abstract

In the current economic climate of our state, the funding for programs, faculty, and services in higher education has become problematic, to say the least. Morale among some faculty and staff is low as a result, making leading an educational unit difficult on several fronts. How can one provide effective leadership and motivate others promoting positive change in the face of these challenges? The author's personal response as department leader is an anecdotal case study which outlines her strategies over the course of 18 months to foster change during challenging economic conditions. This paper will discuss the following strategies: The Open Door: Literally and Virtually; Collegial Empowerment; Cutting Back Without Cutting Out; Doing the Same Things Differently; and, Choosing Attitude. The author's experiences are articulated within the framework of best leadership practices culled from books, journal articles, and other resources.

Keywords: higher education – economy - leadership

1. Introduction

Prior to assuming the reins as department head in late May of 2008, I planned to heed the advice of a former school administrator with whom I had worked closely in the past: do not make any major changes right away, listen and observe, get a feel for the culture of the department, and ask questions and take note of responses from colleagues and other department heads. This advice, at the time, seemed wise and appropriate.

I soon, discovered, however, that in the face of the current economy and the impact of budget cuts on our department, college, and the university system as a whole, waiting to make changes did not seem to be an option. I felt an obligation to act and become a catalytic agent of change to preserve positions, and to protect the quality and integrity of our program. To paraphrase the great basketball player, Michael Jordan: "Some people make change, some people watch change happen, and some people wondered what happened." I had to make change happen!

1.1. The Open Door: Literally and Virtually

In order to move in the direction of positive change while being mindful of our economic situation, I realized I needed to listen to my colleagues' concerns, criticisms, and ideas. I needed and wanted to hear about their professional goals as well as their personal lives (at least as much as they felt comfortable sharing.

My colleagues, like those in Weiler's (1988) research, "are controlled and shaped by material as well as ideological forces" (p. 12). I needed to be sensitive to those forces if my leadership was to be effective.

One of the best strategies I could think of to show evidence of my desire to be a good listener was to literally, keep my office door open as much as possible. Heller (1999) also promotes this strategy in his statement: "Never hide behind the closed doors of private offices" (p. 47). While this "openness" has not always been conducive to my personal productivity, the open door invites colleagues and students to stop in for brief (or extended) discussions, sharing of ideas, seeking or supplying answers to questions, and to the building of a collegial community.

I also keep my "virtual door" open to faculty, staff, students, and others by sharing my email address, inviting correspondence, and responding to emails promptly.

Further, I attempt to be as transparent in my leadership as possible, often consulting with more veteran faculty prior to making decisions. I can, and must, be able to provide a sound rationale for, and open to discussion about, decisions which affect our departmental community.

Another "open door" policy strategy is to be open to creating collaborative partnerships with stakeholder groups both inside and outside the university community. As an example: our Education Department is engaged in a partnership with three technical colleges in our area to facilitate the enrolment of students into our Early Childhood Education program once they have completed their two-year Associate Degrees at their respective technical colleges. This proposed program envisions a "bridge course" to introduce students to the university program and plans to offer classes either via distance learning or on-site at the respective technical college campuses to enable students, most of whom are or will be employed, to easily attend classes without travelling great distances. This program will benefit all involved, but with respect to our program, the increased enrolment from these courses will ensure full workloads for our professors and increase revenue for our program. As an added benefit of the collaboration, grant writers from one of the partner schools wrote a large grant for this effort, a monumental and time-consuming task which would have otherwise fallen to our department personnel. Being open to this and other partnership opportunities benefits us in multiple ways, not the least of which is increased program stability during difficult financial times.

1.2. Collegial Empowerment

I espouse a "power with" approach to administration (Shaw, 2001). Building upon the "power to" approach advocated by Brunner (1994) and Brunner and Duncan (1994), the "power with" approach is "based upon the recognition of (colleagues') own power as well as that of others, and that goal attainment is accomplished in concert with other stakeholder groups as they exercise their individual power together (p. 163).

During stressful economic conditions, changes are often imposed upon people and organizations that are seen as necessary for the survival of the unit or program. Any change involves a degree of risk (Heller, 1999, p. 68) Reactions to change and perceived impositions can vary from positive willingness and acceptance to ignoring change directives and/or subverting them. Allowing colleagues to voice their concerns and have voice in how changes can be implemented or at least coped with can be empowering to them. The following is an example of an imposed economic change and our department's reaction to it.

The State of Wisconsin has mandated unpaid furlough days for the next two years for all state employees (which includes all employees at the state-funded schools). During state-mandated furlough days, employees are not supposed to perform any work-related duties, including reading and responding to email, answering telephone calls, and so forth. These unpaid days for faculty members resulted in a 3.065 percent pay reduction in salary (in addition to the rescinded 2 percent pay raise). Many faculty felt unappreciated and, not surprisingly, a decline in morale ensued.

To cope with this mandate, together we contrived "politically correct" messages to those to try to contact us on furlough days via email, in person, or by telephone to inform them about the mandate and to invite them to contact their legislators about the effect of furlough days on their education. While our efforts could not change the mandate, having a strong response to it left many faculty and staff feeling empowered.

Other changes are being foisted upon our faculty as well, resulting in changes not appreciated by all. Because some of these changes will become effective in the future, we have formed two committees chaired by department members (other than me), for the purposes of investigating the effects of the changes on our department and ways we need to prepare to be proactive in adopting them. Faculty and staff members have self-selected the committee on which they wish to serve and all have equal voices in the discussions. The result of these actions has, for the most part, generated feelings of excitement and opportunity instead of powerlessness and dread.

1.3. Cutting Back Without Cutting Out

As the entire university, including our college and department, continue to face budget difficulties, there was need to examine where cuts could be made. These reductions, however, could not compromise the quality and integrity of our program.

Looking at expenditures over a period of time, I found several areas where reductions could be implemented while still maintaining program excellence. Although savings in some areas seemed miniscule within the larger budget "picture", over time the savings have become substantial. The following paragraphs highlight two of these reductions.

Every department colleague, as well as each of our two student offices, had at least one telephone. Some offices had as many as three telephone lines as well

as a fax line. Research on the telephone and fax usage in all offices resulted in the realization that several telephone lines were seldom, if ever, used yet we continued to pay monthly service fees! The outcome of this effort was the disconnection of several telephone lines and one fax line and a savings of close to \$2000 in the first year following this action. It must be noted that all faculty, staff, and our student organization office have the equipment and access they need to maintain quality in their communications.

A second realization for the need for change centered on expenses incurred (food, lodging, and travel) by supervisors of student teachers in our program. Supervisors typically documented the "allowable per diem" for food and often used their own vehicles (as opposed to a state-owned vehicle) for travel. Because the amount budgeted for these expenses has remained at the same level for almost ten years, despite rising costs, changes in travel and recording of expenses were needed to stay within our budget. Thus, supervisors were instructed to record exact (versus "allowable") amounts for food. In addition, personal vehicle use was permitted only if state vehicles were not available or if the use of a personal vehicle was more cost effective due to miles travelled.

During the first year after implementing these changes, the department saved over \$700. The savings have been even greater in the following year due to diligence on the part of supervisors in geographically coordinating visits as well as increased attention to detail in their reporting of expenses. Supervisors still received compensation for their travel; however, the parameters of allowable expenses and the use of state vehicles has reduced the cost to the department.

1.4. Doing the Same Things Differently

Our faculty like many of our counterparts in other institutions require supplemental reading beyond course textbooks. These readings, in many cases, come in the form of paper copies of articles that are distributed to students during the course of class sessions. I learned that while our departmental usage of photocopied handouts was not considered excessive when compared to other departments within our college, I wanted to reduce the dependency on paper for both financial and ecological reasons.

Within our university system, we have an outstanding online course management system, *Desire2Learn (D2L)*, which allows instructors to post articles, syllabi, links to internet resources, video clips, and other forms of media. The system also has a depository for student work, can manage grades in multiple formats, and enables multiple forms of communication between instructors and students.

I have strongly encouraged my colleagues to use this system, even with their face-to-face classes, as a means of reducing paper consumption and providing students with any-time access to all course materials and grades. Further, the cost of purchasing supplemental course materials incurred by students is eliminated because all materials can be accessed on line free of charge during the course. Hard copies may be printed from the system, if students choose to do so. An additional benefit to students is the ability to access this material, with

instructor permission, even after the course is completed, again with no charge. Because instructors can copy their course materials from one semester to another, importing all the course elements, the one-time expenditures of time and effort in the initial set up of supplemental do not have to be duplicated each time the course is offered.

Instructors have also been encouraged to use a second option in posting reading material to our Electronic Reserve system. This option also requires more work on the part of the instructor prior to the onset of the class; however, students have electronic access to these materials for the duration of the class and may, if they choose, print hard copies of the articles.

These two options provide necessary materials to students in formats other than in the traditional hard copies while reducing costs to them and to our department.

1.5. Choosing Attitude

Charles Swindoll (1996) wrote, "I believe the single most significant decision I can make on a day-to-day basis is my choice of attitude. It is more important than my past, my education, my bankroll, my successes or failures, fame or pain, what other people think of me or say about me, my circumstances, or my position. Attitude keeps me going or cripples my progress. It alone fuels my fire or assaults my hope. When my attitudes are right, there is no barrier too high, no valley too deep, no dream no extreme, no challenge too great for me" (p. 64).

As mentioned in the description of mandatory furlough days above, one's attitude toward change, dire economic conditions, and the feeling of being "done to" can have either positive or negative impact on motivation, work performance, and morale. My attitude, however, can also have an impact on the way my colleagues view change.

In *Lesson in Loyalty* (2005), Lorraine Grubbs-West outlines nine "lessons" that can have a positive impact on any organization. Two of the lessons which most apply to this discussion have been selected for deeper consideration.

First, "Loyalty Lesson #4: People Give as Good as They Get" (p. 52). Included in this lesson is the principle that an employer/administrator shows colleagues they are highly valued. Here is how I have attempted to follow this principle in a fiscally responsible manner:

Show gratitude for everything, for example, timely responses to correspondence, service on committees, exemplary teaching, scholarship, and/or service, help in problem solving, and so forth.

Recognize days/times that may be special to colleagues: birthdays, inquiring about family or health, celebration of successes in teaching, scholarship, and service, especially if noted in the media.

Nominate colleagues for recognition for exemplary teaching, scholarship, and service.

Maintain an open door policy that sends the message to colleagues, "I am available and reading to listen.

Second, "Loyalty Lesson #8: Do What's Right" (p. 101). This lesson reinforces earlier statements about collegial empowerment and expands that concept to encourage colleagues to not just "do what's right by the book" but to "do the right thing" (p. 94), use common sense, and make suggestions that will benefit the greater good. Trusting colleagues to perform in this manner is empowering to them and reinforces Loyalty Lesson #4 above.

2. Conclusion: Challenges and Opportunities of Change

With each challenge comes an opportunity, and with each opportunity comes a challenge. As the department leader, it is my job to minimize the discomfort of challenges and tout the opportunities of change. This is no small task and in the words of Dr. Joan North (2008): "Everybody has an ideal about how you ought to lead, even you. Run from them all and find the real you (the only you) and operate from there, without apology. This is a life-long marathon. Think of the various challenges—budget, quirky personality snags, lack of help, weeds of all sorts—as board games. They offer you challenges for your intellect and instinct to solve. They are fun. Don't get sucked into them emotionally or they are not fun. Don't spend much of your time with this fun. Make room for your number one job of establishing the college climate."

This personal anecdotal case study has focused on challenges I have encountered during my first two years as the department chair. Absent from much of this discussion has been a listing, or endorsement, if you will, of the strengths or limitations of various leadership theories and approaches. Rather, this paper has been a reflection of a personal call to action in the face of economic conditions and the ways in which practical applications have helped me lead toward change in my department.

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Relationship between managers' skills and effectiveness of schools in the Kerman (Iran)

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Abstract

Educational managers have pivotal role in education. Manager effectiveness depends on performance school and in turn effectiveness of schools is depended on goal achievement, therefore managers' task is leading the educational organ to goal achievement. Effectiveness of schools is one of the first priorities for education which it depended on managers' skills. Statistical population was all of managers in pre-university and high schools. Ninety managers selected by consensus method. The gathering tools were two questionnaires about managers' skills with 27 items and effectiveness of schools with 23 items. Content validity used for both questionnaire and 0.83 for managers' skills and 0.93 for effectiveness of schools obtained. Reliability of both questionnaires was 0.82 and 0.80 accordingly. Data analyzed by spss software. The participants were schools 90 managers, with average age of 43.3, female (% 58.9) and male.%93.3 of the samples had BA and only %26.1 had BA in the educational administration.

Keywords

Managers skills- effectiveness of schools-Managers

1. Introduction

Education is the most important factor in the community development. Therefore, all governments have been spending most of investment for improvement its quality and effectiveness. Considering this importance, management and leadership of employees are factors in the organization and society. If educational managers have sufficient knowledge and skills in the society, without any doubt, educational system will have high efficacy, efficiency and accreditation (Mirkamali, 1994). Prentis (1984) identified critical skills as follow:

1. Listening
2. Communication
3. Problem solving
4. Time management
5. Adapting with change
6. Interpersoal relations
7. Stress management (Kameron, 1997).

Keleman et al(1995) have written in their review literature that some skills for managers are : communication , conflict management, motivating, performance appraisal, decision making, time management, stress management, creativity and invention, organization and coordination(Zimmerman, 2000). Skills and knowledge are effective on human resource development and improvement of organizational performance (Moshabbaki, (1998). Managerial skills divided into categories;

1. Skills of human behaviour in the organization and how the organ turns.
2. Skills of knowledge related to the content of work in the organ (John, 1998), then the future of schools and their development depended upon effective management of managers ((Mirkamali, 1994).

Experts of organ and educationists have increasingly interested in organ effectiveness due to increasing of globally competition. After approval of «No Child Left Behind Act of 2001", critical skills should teach and train to students for success on the globally economic challenges(Us Department of Education2007).

The high schools managers are having three managerial as named technical, human, and conceptual skills and they utilize them in the management process, they achieve the high schools effectiveness. Some experts and educationists listed the effective skills for school managers as follow: conceptual, human, professional and technical skills which these skills ensure managers success in their mission and objectives (Soltani, 1996).Organ effectiveness refers to ability for goal achievement in the organ (Alaghaband, 1999). Kolobandi, (1995) wrote that organ effectiveness depended on

1. Growth and survival of organ,
2. Goal achievement,
3. Control and supervision.

Moradi (1985) concluded that there are eight factors for effectiveness based on competition approach ; Flexibility, resource collection, planning, profitability, data gathering, stability , integrated work force and expert work force. Research assumptions are: There is a relation between managers' skills and high school effectiveness. There is a relation between three skills of technical, human, and conceptual with eight factors of effectiveness (Flexibility, resource collection, planning, profitability, data gathering, stability, integrated work force and expert work force).

2. Method

This is a descriptive correlation type. Statistical population was all of managers in pre-university and high schools. Ninety managers selected by consensus method. The gathering tools were two questionnaires about managers' skills with 27 items and effectiveness of schools with 23 items. Content validity used for both questionnaire and 0.83 for managers' skills and 0.93 for effectiveness of schools obtained. Reliability of both questionnaires was 0.82 and 0.80 accordingly.

3. Results

Finding showed that there is direct and significant relationship between managers skills and pre-university high school and high schools effectiveness. These findings is same as results of Delkhosh Kassmaee, (1992), Mossavian Najafabadi, (1993) and Robert Katz Robins, (1996). Then, It concluded that three skills of managers are necessitate for both high school managers to improve education quality and high schools effectiveness. Also, there was a direct and significant relationship between technical and conceptual skills with eight factor of effectiveness (Flexibility, resource collection, planning, profitability, data gathering, stability, integrated work force and expert work force). These results is parallel to, (Pardakhtchi, (1995), Nayeli, (1991), Alaghband ((1999). Other findings and results will present in the conference.

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The leadership role of elementary school principals

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Abstract

The aim of this thesis is to demonstrate basic issues of management and leadership which have been presented through studies over the last three decades. The practical level is also analysed through research which investigates the ways in which elementary schools in Thessaloniki, Greece are run by the administrators. From the total of 181 administrators of school units, 82 were given the questionnaire and it was completed by 65. The questionnaire, by means of a Likert attitude scale, elicited whether the 'ergocentric' or the 'humancentric' model of administration was used. The findings show that the principals of elementary schools mainly use an 'ergocentric' model and that their gender did not influence which model was chosen. It also appears that there is a positive relation between the increase of age and the use of each model of administration.

Keywords: leadership-management-elementary school principals

1. Introduction

In the 70s the studies for the administration of schools in USA and Europe were in the first stages and they were interested mainly in the characteristics of the efficient schools.⁸ According to the research there are five common points: a) the powerful exercise of leadership, b) the emphasis on the educational objectives, c) the high expectations, d) the healthy and disciplined environment, and e) the frequent enhancement of school performance. These studies are inspired by the perception that the effectiveness of the school and educational changes are directed towards goals, in an administrative-managerial perception of the exercise of leadership and in the admission that a distinguishable linear relation of reason and result exists between distinct variables of the school process (Papanaoum, Z. P. 1995). It becomes progressively acceptable that different factors intervene between the activities of the directors and the effects on the students and that the work of the director is associated as much with elements of himself as an individual as with the particularities of each school.

In the '80s two main models concerning the exercise of leadership in the school appeared. According to studies the effective leader is described as an exceptional

⁸ Efficient schools were considered the schools that had high records in the education of children of minorities, with low socio-economic origin.

rationalist and pragmatist who adopts suitable goals for the school and chooses the appropriate solutions, and if this is not effective, the leader proposes another solution related to the objective. The director of the school is the 'key' person for the effectiveness of the school. According to this model the importance of the role of the director springs from his position. The second model, that emanates from research of case studies, stresses the cultural dimension of leadership and implies that leadership is considerably limited by the cultural background. According to this model, the leader establishes the culture of the school. The aim of the research was to locate those skills that lead to the effective exercise of leadership and which could be improved through the suitable choice and education of directors. According to this model not only the directors have a leading role, especially in the secondary schools, but also the teachers and their exercise of leadership constitute an important aspect of improvement of the schools. Progressively, the emphasis in the style of the leadership and in the culture of the school led to an approach that places as demand the transformational leadership.

From the bibliography and literature of the two last decades we observe two basic types of models of (educational) leadership: a) The transformational leadership model conceptualizes school leadership along a number of dimensions including building school vision, establishing commitment to agreed goals, providing intellectual stimulation, offering individualized support and encouraging high expectations both on behalf of the principal and the school staff. This indicates that this model of school leadership focuses on the people involved-relationships -in particular- and requires an approach that seeks to transform staff feelings, attitudes and beliefs. b) The instructional or pedagogical leadership model assumes that the critical focus for attention by school leaders should be the behaviour of staff as they engage in activities directly affecting the quality of teaching and learning in the pursuit of enhanced pupil outcomes. Central to this is the need for leaders to think critically about how to develop a greater capacity to articulate specific educational values around the teacher (Gold, 2003).

2. The study

This section refers to the participants of the study, the data collection instrument and the data analysis procedures. Each of these issues will be dealt in detail.

2.1. The aim of the study

In this paper we present the results of our empirical research that concerns the assessments gathered from 65 elementary school principals. It was the intention of this study to explore the attitudes and the ways that the school principals run their schools. The definition of the way principals manage their school units is expected to contribute to the effort for a better and more efficient school and also to become a helpful instrument in the implementation of an educational programme for educational administrators. The second purpose of the research was to examine if and how the demographic factors, such as age, gender and educational level affect the school administrators in the way they run their schools.

2.2. Measurements

The questionnaire consists of two parts. The first part involves statistical data concerning the individual situation and employment status of the principals taking part. The second part contains the questionnaire: "The Description of Supervisory Behavior" (Fleishman, 1953). The questionnaire consists of basic statements which are intended to identify the way in which elementary school administrators managed their schools. Through the use of this research tool we hope that we can establish, to a satisfactory extent and with a satisfactory degree of reliability, how the principals administrate their school units.

The questionnaire measures two relatively independent leadership dimensions, - "Consideration" (humancentric model) and "Initiating Structure" (ergocentric model).

Consideration or humancentric model: Twenty-eight items in the "Consideration" dimension reflect the "human relations" aspects of group leadership. The "Consideration" dimension is portrayed in the behaviour of the leader who acts in a warm and supporting way, promotes companionship and reciprocal confidence, respects the relations between himself and his subordinates as well as the latter towards each other. The leader is also interested in the prosperity of the members of his team and is distinguished by a high degree of sociability, attendance, politeness and feeling of equality.

Initiative structure or ergocentric model: Twenty items in the "Initiative Structure" dimension reflected the extent to which the leader defined or facilitated group interactions toward *goal attainment*. He does this by planning, communicating, scheduling, criticising and trying out new ideas. The "Initiative Structure" dimension of administration describes the behaviour of the manager who organises the work without consulting the staff, who plans his work in every detail and the methods of communication between himself and his team and insists on keeping the deadlines. Although these two dimensions have been found meaningful in the industrial situation, this research is studying the leadership behaviour in educational organisations. In each statement the subjects are called on to express their degree of agreement with its content, according to a Likert scale that oscillates from 1 to 5.

Fleishman and his collaborators consider that the humancentric and ergocentric models are separate variables and that each director can be described by his answers in the two variables. Preliminary analysis showed that both scales (the 'consideration' scale and the 'initiative structure' scale) were reliable (all alpha values $>.83$).

2.3. Participants

All the participants completed the questionnaire between March and June of 2009. From the 82 questionnaires which were distributed, 65 were returned (79.2%). It was emphasized that anonymity would be kept. The statistical

analysis of the data was carried out by making use of the SPSS software programme for Windows Release 17.

A total of 65 principals of both gender participated in this research. They were randomly selected from schools of the Directorate of Primary Education of Western Thessaloniki, Greece. The sample is made up of 73.8% men and 26.1% women, reflecting the tendency for men to outnumber women. A 16.9% of the sample is aged between 40 and 45, 43.07% from 45 to 50 and 24.6% of the sample are aged between 50 and 55.

Table 1. Frequency of the sample regarding age

| Age group | Frequency |
|------------------|------------------|
| 35 to 40 | 2 (3.1%) |
| 40 to 45 | 11 (16.9%) |
| 45 to 50 | 28 (43.07%) |
| 50 to 55 | 16 (24.6%) |
| 55 to 60 | 8 (12.3%) |
| Total | 65 (100%) |

The distribution of the sample by age shows that the entrants to educational management are mainly middle-aged teachers who have years of experience in teaching. But do they have enough experience in management? From the sample, 17.5% has a master's degree and 35.3% has a second degree while 7.9% has both a second and a master's degree.

Table 2. Distribution of the sample according to its educational level

| Educational level | Men | Women | Total |
|---------------------------------|------------|--------------|--------------|
| Master's degree | 6 | 5 | 11 (17.5%) |
| Second degree | 18 | 5 | 23 (35.3%) |
| Master's degree & Second degree | 3 | 2 | 5 (7.9%) |

3. The results of the research

A scatterplot graph was used to investigate the main objective of the research- the study of the way that school principals manage their school units. The results from the analysis of the graph can be seen in the following table 3.

Table 3. Frequency of the modelsh of leadership by primary school principals

| Leadership models | Primary Principals (n=65) | |
|---|------------------------------|------|
| | frequency | % |
| Consideration (humancentric model) | 8 | 12.3 |
| <i>Initiative Srtucture</i> (<i>ergocentric model</i>) | 50 | 76.9 |
| Both dimensions | 9 | 13.8 |

Table 3 demonstrates that the majority of those questioned use the "Initiative Stucture" (ergocentric model) dimension. Fifty (76.9%) principals use the initiative structure dimension, eight (12.3%) use the consideration dimension and nine (13.8%) use both dimensions.

A T-Test was used for independent samples in order to investigate the second objective: how gender affects the way of administration. The results of the analysis can be seen in table 4.

Table 4. Means (and formal divergences) from the reports of directors concerning gender

| | Sex | Number | Means | Standard Deviation |
|---|-------|--------|-------|--------------------|
| Consideration (humancentric model) | Man | 48 | 2.88 | .26 |
| | Woman | 17 | 2.93 | .28 |
| Initiative Structure (ergocentric model) | Man | 48 | 3.09 | .49 |
| | Woman | 17 | 3.11 | .38 |

The results from the T-Test for independent samples, as table 4 shows, indicated that gender did not influence the way that primary school principals administer their schools.

Next, we separated the principals into three groups according to age. The first group comprises of principals aged between 30 and 45 (n=13), the second, principals between 45 and 50 (n=28) and the third, principals from the age of 50 and up (n=24). As we can see in table 5, the results from ANOVA analysis have showed that age influenced the way that school administrators run their schools.

Table 5. Descriptive statistics and findings from ANOVA analysis for the effects of age on leadership performance

| Leadership models | Age | Number | Means | Standard Deviation | p |
|---|-----------------|---------------|--------------|---------------------------|----------|
| Consideration (humancentric model) | <i>Below 45</i> | 13 | 2.75 | .24 | 0.029 |
| | 45 - 50 | 28 | 2.88 | .26 | |
| | <i>Above 50</i> | 24 | 2.98 | .25 | |
| | Sum | 65 | 2.89 | .26 | |
| Initiative Structure (ergocentric model) | <i>Below 45</i> | 13 | 2.87 | .38 | 0.013 |
| | 45 - 50 | 28 | 3.02 | .44 | |
| | <i>Above 50</i> | 24 | 3.30 | .47 | |
| | Sum | 65 | 3.09 | .46 | |

p is significant <0.05

In particular, as we can see in table 5, age influences to a statistically great extent the "Consideration" dimension ($F(2,62)=3.747$, $p=0.029$). We observe that from the three age groups, the ones that differ in a statistically great degree are the group of below 45 and the group above 50. The same occurs with the principals who use the "Initiative Structure" dimension ($F(2,62)=4.697$, $p=0.013$). In conclusion, it was found that the difference between the team below 45 and the team above 50 is statistically important for both types of administration. It seems that the above 50 group declares that it uses each type of administration more dominantly than the other age-related teams, especially with the team below 45.

To facilitate the analysis, two teams of directors according to their educational level were created. The first team is made up of the directors who are graduates of the Pedagogical Academy and the second team is made up of the directors with higher qualifications (holders of a master's degree or second degree). The analysis shows that neither the educational level nor the previous experience in the particular profession influence the way of administration.

4. Discussion

It is worth pointing out the low percentage of women in a managerial position. In total, from 181 directors of elementary school units in the Directorate of Primary Education of Western Thessaloniki of Greece, only 31 are women (17.1%) while the remainder 150 (82.8%) are men. As is supported by various studies, the women do not have or are not given the opportunity to familiarize themselves with the bureaucracy through the distribution of responsibilities and duties. On the contrary, the male directors or executives seek the help of men. It is also supported that the interest and the ambitions of female teachers for professional growth are directed mainly in becoming more effective in teaching rather than in administrative duties (Maragkoudaki, 1997). According to a study throughout Greece that took place in the school year of 2002-2003 with directors of school units of Elementary Education, the subjects of research consider that family obligations, leading administrative competences, knowledge of legislation-

scientific training and trade-union activity constitute important differences that lead men and not women to become directors (Raptis & Bitsilaki 2007).

The data show that the women often feel that they should adopt “male” behaviour in order to become acceptable in such positions (Shakeshaft, 1987) even if a lot of studies show that the women in hierarchical positions are good as their male colleagues and many times even better (Kantartzi, 2003).

Regarding the first objective of the research, that is, examining the way in which administration is exercised by the directors of school units of Primary Education, we observe that substantially most participants administer using the “initiative structure” dimension. This is possibly due to the structure of the Greek educational system and more specifically to its administrative structure. The director is not only the direct hierarchical head of the educational and administrative personnel of a school unit but is also the pedagogic person in charge of the school. The duty of the school principal is to take all the necessary measures for the smooth operation of the school, to coordinate school life, to observe the laws, the circulars and the official commands and to apply the decisions of the school teachers. Consequently, the director mostly functions merely as an executor of the decisions made by the superiors in a traditional and bureaucratic way (Saitis et al 1997 and Andreou, 1998).

The planning of an educational policy takes place in the superior hierarchical levels and from there is channelled, with laws, presidential decrees, decisions and circulars to implementation in the schools of the country. The Ministry of Education determines the objectives of the educational policy, the structure of the educational system, the content of provided knowledge, the legal frame, the hours of operation and in general the total framework of education. This control of the educational process also constitutes the main factor that until now limits the exercise of internal policy of the school unit. Consequently, it doesn't allow the director to be more than a simple processor of decisions of the central educational institution of power rather than a leader who could abandon a way of administration directed to the production of work for a more human-centric model of administration.

Regarding the second objective of research, that is to say how much the various demographic characteristics affect the way of exercise of administration, it was also found that also the two sexes adopt a similar way of administration. Through practising administration they are confronted with the expectations of others regarding the roles of the two sexes that derive from the relative stereotypes. The two different roles, that are considered relative for the understanding of the exercise of administration, are the leading and collective characteristics (Eagly et al 2000). The leading characteristics which are attributed to men rather than women, describe a tendency of imposition, control, logic, determination and certainty. The collective characteristics, which are attributed to the women rather than to the men, concern the prosperity of the other. It is observed that the women that possess administrative positions more and more adopt behaviour and ways of administration similar to the male administrative executives.

Grace (1995) supports that the women directors work and function in the frame of masculine hegemony. As time passed, confusion was created between the traditional masculine characteristics with those of leadership. This had as a result that the administration usually be considered as masculine territory. It is supported that the efforts of women administrators to adapt their behavior to the requirements opposite to the traditional female role and the role of practising administration, can create ways of administration that differ from those of men. The research that examines the combined effect of the roles of sex and administrative roles realises a tendency of resemblance of men and women that practise the same organisational role.

Morrison (Ball & Reay, 2000) found that the psychological profiles of women who succeed in positions of executive leadership may be more like those of their male counterparts than they are like those of women in general. Meta Kruger (1996:454) found in her research of 98 paired male and female headteachers in Holland that women were no different to their male counterparts in terms of "internal communication" and "personnel management". She also researched whether women were 'more involved with others and less task oriented than men' and found that they were not, leading to the conclusion that women in places of leadership hardly differ from their male colleagues in the way in which they experience power. Psychological studies support the view that, as women achieve power, qualities normally associated with femininity are modified (Ball & Reay 2000).

However, the socialization in modern organisations, which face continuously altered and a full of pressures environment, as are the educational organisations, aims at the adoption of new forms of administration. The new situation requires management that has the flexibility of using practices which have been characterized by both the male and female way of administration. In the bibliography the androgyny model of administration is proposed. This term describes, besides the biological sex, the result of a manager combining the better characteristics of a male and female way of administration (Korabik, K. & Ayman, A. 1989).

Concerning the rest of the demographic factors (age, years of previous experience in the particular profession, years of service in the position of director and educational level) we observe that the demographic factor that influences the exercise of administration is age. We realise that among the age-related groups of individuals that use the "Consideration" dimension of administration, the one that uses the "Consideration" type of exercise of administration most dominantly is the group of above 50. The same happens also with the "Initiative Structure" dimension of administration. The above 50 group declares that it uses this type of administration more dominantly than the other age-related teams. This possibly happens because these individuals have already developed a concrete model of administration which they have been applying in their work for many years and do not have the desire to change it or make certain transformations, contrary to the younger ones that are in a position to change or experiment with different styles of leadership.

5. Conclusion

The results of this particular research which took place among 65 primary principals in Thessaloniki, show that the current directors of elementary schools use, in their majority, the "Initiative Structure" (ergocentric model) dimension of administration, without any existing differences between the two sexes. It still appears that there is a positive relation between the increase of age and the exercise of each way of administration.

From a more general view of the role of director of school units in the Greek bibliography but also from the present research, it appears that the administration of a school is a complex operation, not only at an ethical level but also at the level of daily exercise. There are possibilities of individual initiatives and choices. If and how these possibilities will be developed depends on the faculty of each director to extend his field of action and to make the correct choices, without remaining in stereotyped situations and behaviours.

It is an undeniable fact that the bureaucratic model of administration that is substantially imposed by the political leadership helps neither in the effective administration nor in the effectiveness of school units. Certainly, the choice of individuals that is asked to carry out such work, as well as their in-service training (training seminars, establishment of more postgraduate study on the Public-educational Administration) so they can contribute to their own effectiveness, much more if they are accompanied by the convenient orientation for this position, the prospect of professional development, the powerful motives and the continuous support (Papanaoum, 1995). Such types of regulations do not appear to be enough for the essential upgrade of the work of the administration. The effectiveness of the director is not only the interrelation of his character, his education but also depends on each school situation. The administration of a school cannot be seen separately from the system of administration of Greek education, or either from the other factors of the educational process, as are the teachers.

Consequently, the regulations for an effective director should include more extensive planning for the staffing in education, in combination with a more flexible and decentralised structure of administration. The autonomy of a school unit and its connection with the local society can constitute the motive for the director to be in the position to carry out his work by developing the central regulations depending on the particularity of his school.

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Validity of admission criteria in predicting academic success. The case study of the Healthcare Professionals degrees at University of Genoa

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Abstract

This research examined the criteria used by the Italian admission medical school to determine an applicant's academic eligibility to attend the Health Professional degree programs. The objectives were to evaluate the predictive capability of the current criteria.

Keywords: admission criteria - higher education.

1. Introduction

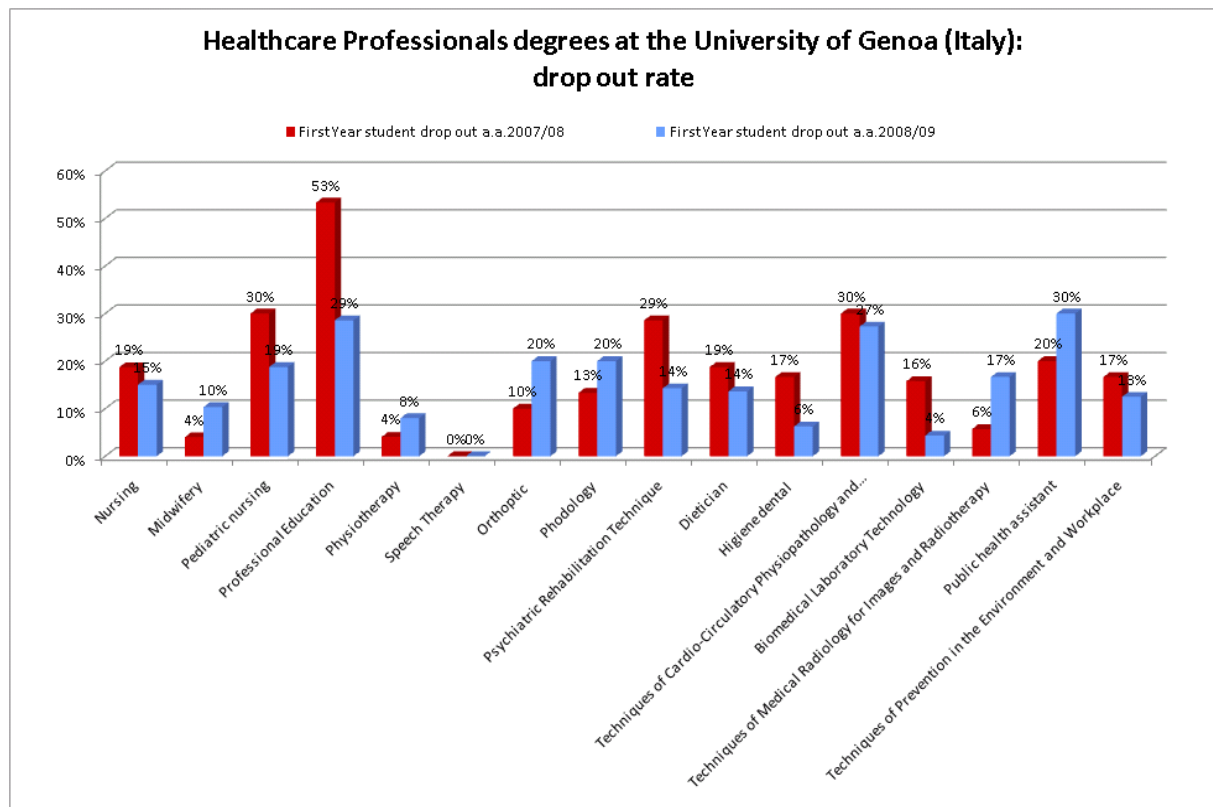
In recent years, the number of students enrolled in Italian university Healthcare programs has shown a substantial increase.

| Academic Year | Available spaces | Applicants |
|------------------|------------------|------------|
| 2006-2007 | 745 | 1.512 |
| 2007-2008 | 725 | 1.550 |
| 2008-2009 | 820 | 1.889 |

But the quality of nursing and allied Health Personnell is likely to decrease instead of improving. Moreover many Healthcare Professionals degrees students are not well motivated and tend to lose their interest in their jobs early.

So the drop out rate is quite high. The OECD's Education at a Glance 2008 indicates alarming drop out rates in Higher education. Italy has the highest rate of student drop outs when compared to the other nation included in the study. In fact, less than half of those who sign up for a college course or university degree go on to complete their studies.

Research has considered the reasons for the university drop out phenomenon and has demonstrated the complex influence of multiple factors (Ehrenfeld et al.,1997; Glossop, 2002).



Researchers (e.g. Van Rooyen P., Dixon A., Dixon G., Wells C., 2006; Ehrenfeld M., Tabak N., 2000; Aber, 1996; Houltram, 1996) reported that the problem seems to be caused by many factors and one of these are the selection criteria for acceptance into the nursing and allied healthcare professions degree course.

2. Background

Admissions Committees who are responsible for selecting candidates for Health Professions degree courses face an important but really difficult task. Since the admission process is typically very competitive with more applicants than available spaces.

Many researchers have studied the relationship between school performance prior to admission to the university program and subsequent academic performance.

The predictor variable typically used in these studies is overall undergraduate grade point average, although the focus of interest in a few cases were also high-school grades or undergraduate science grade point average.

Every profession calls for a special level of knowledge, skills and personal characteristics. Selecting the best candidates for Healthcare Professionals degrees can be achieved when those who are selected have appropriate personality feature, such as caring for others, sense of responsibility and team orientation (Wharrad, Chapple et al. 2003; Wilson, 1999).

So it is incumbent to select candidates from the total applicant pool who are most likely to succeed, not only as students in the program but also as Health Personnel in the future. Current admissions criteria in Italy do not help to select applicants who have a high probability of successfully completing the professional program and who possess the qualities deemed valuable in a Health Personnel, because they are only knowledge test.

Nayer (1992) suggests that the aim of admission procedures is "to select students who will complete the university program and go into professional careers, do well in the program, perform creditably in professional practice and possess the traits of character and ethical values desired of a professional person".

In the literature there is general agreement that the admission process should include assessment of both cognitive and non-cognitive characteristics of applicants and several surveys have revealed that such assessment is common practice among health profession programs (Agho et al., 1998; Johnson and Edwards, 1991; Scott et al., 1995). In Italy these issues have been neglected. The process of choosing candidates in Italy requires new thinking; considering students' personality during the process of admission into universities and recruiting through the new competency based process.

Further research is needed to find more valid ways of assessing the non-cognitive characteristics of applicants and measuring outcomes related to their ultimate success as Health Personnel.

3. Data and Methodology

The goal of this research is to address the effect of admission criteria used in Italy and how they related to student success in completing the nursing program. Our aims were to address the following questions:

1. Do students with higher entry qualifications perform better than those students with lower qualifications?
2. Is academic performance influenced by age?

3.1 Design

An exploratory correlational design was used for this research. Academic achievement at time of entry to the Healthcare Professionals degrees was correlated against performance of students in the first year.

3.2 Sample

The sample consisted of 2.250 first-time student who entered in a course over the three-year period from academic year 2006-07 through academic year 2008-09 and for whom complete admissions data were available.

Data on each student were drawn from University Student Database, which tracks all students after point of entry based on periodic data uploads.

3.3 Predictor Variables

The main predictor variables considered in the study were high-school grade-point average and standardized test scores.

Standardized test scores considered in the analysis consisted of students' scores on each of the four tests required for the Italian University admission during the period under study: Biology, Chemistry, Math and Physical, General Culture. In addition to these academic variables, the analysis also controlled students' high school performance.

Finally, it is important to note several kinds of predictor variables that were not considered here, such as financial, social and academic support.

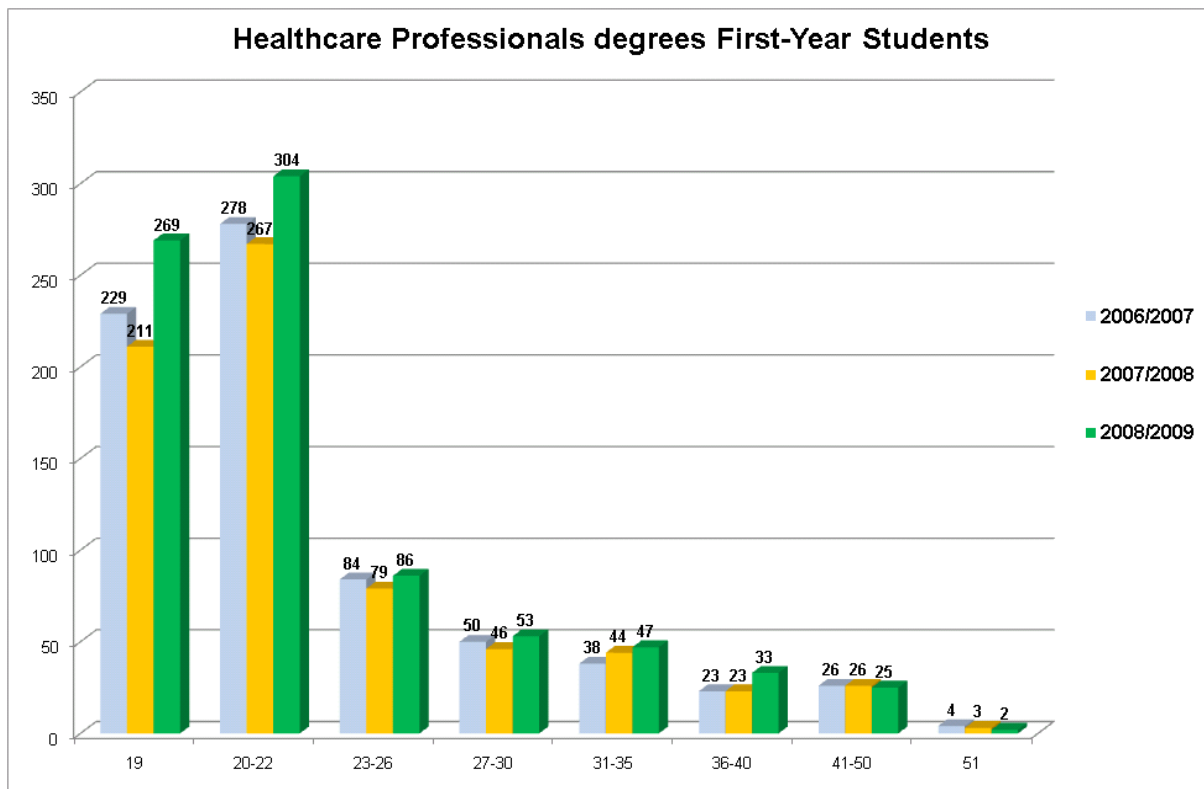
The present study is limited to assessing the predictive validity of academic and other factors known at point of university admission.

4. Results

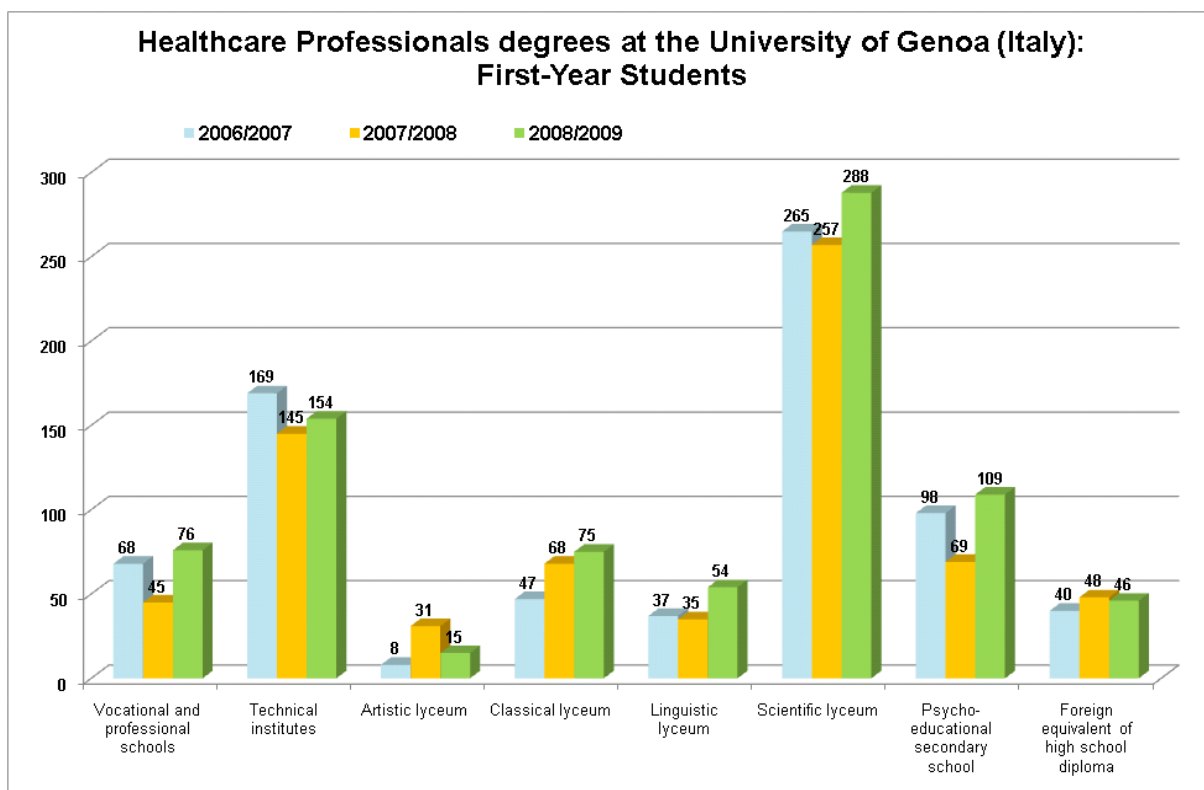
According to the demographic data the total sample (n. 2.250) was split as follow:

| First Year Student enrolled in academic year | M | F | Total |
|---|------------|--------------|--------------|
| 2006/2007 | 227 | 505 | 732 |
| 2007/2008 | 233 | 466 | 699 |
| 2008/2009 | 250 | 569 | 819 |
| Total | 710 | 1.540 | 2.250 |

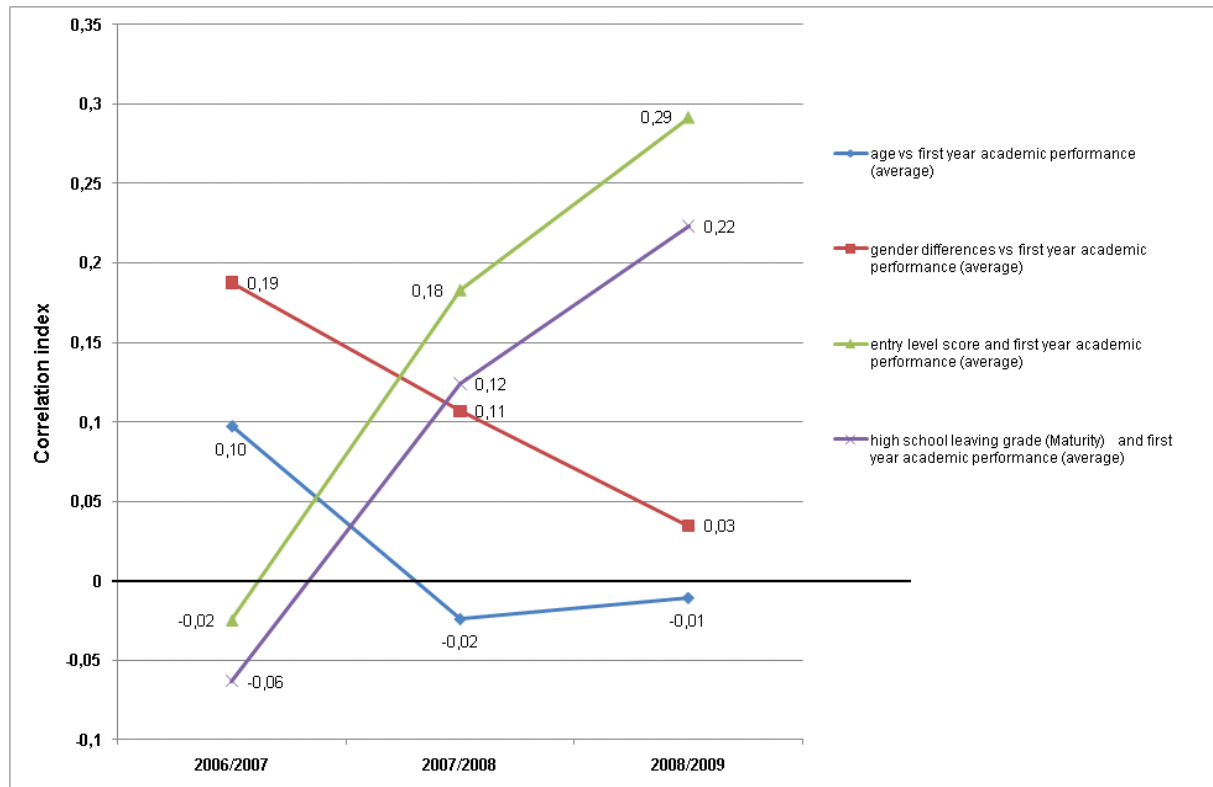
This result mirrors the gender division within Healthcare courses. The data suggest that men currently represent a relatively small percentage of the nursing and allied Health Professionals students. The graph below describes the age of the students in the three academic years investigated.



Many students had scientific lyceum, technical institutes, psycho-educational secondary school and vocational and professional schools background. Classical, linguistic and artistic lyceum follow with a lower number of students.



Students with elevated levels of school leaving grade (Maturity) have also elevated level of academic achievement at time of entry and an elevated number of first year exams passed successfully. But the index of correlation is weak, as shown in the graph below.



The index of correlation between gender and academic achievement shows that females performance better than male, but the trend is decreasing.

Mature students achieved better average marks in examinations than their younger peers until the academic year 2006-07, while in the last two years the trend is negative.

The objectives of this research effort were accomplished. The objective criteria currently used to make academic eligibility decisions provide little predictive validity.

5. Conclusion

The results do not allow to say that those who entered with a high admission test score (and probably will have high performance during the course) have also the skills to become a good health care personnel.

The prediction of academic performance in a program of graduate education is not an easy task. The sources of variation are too numerous to list and nearly impossible to quantify.

The process of choosing candidates to nursing and allied health care programs in Italy requires new thinking; considering students' personality during the process of admission into nursing schools and recruiting through the new competency based process.

It seems that personality tests can help to select the best students for health care personnel degrees from those who show good academic capabilities. This would decrease the rate of attrition and could improve the quality of care.

An admissions process that provides a valid assessment of applicants remains an elusive goal for health profession education programs. Policy maker should guide their decisions related to identifying admission criteria, choosing measures to assess both the cognitive and non-cognitive attributes of applicants, weighting the various components for final selection of students, and evaluating the overall process.

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Inductive Reasoning in Mathematics Supported by Science Simulations: A Discourse of Deriving Mathematics Concepts from a Physical World

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Abstract

Although inductive reasoning produces multiple learning outcomes, this teaching method is rarely applied in high school mathematics classes. Applications of inductive reasoning are mainly centered in the section of mathematics when students prove validity of sums for certain series or in geometry when they, for example, prove relations between the sum of interior angles and the number of sides of a polygon. Is there a possibility of expanding this teaching method to other mathematical sections to expose students to a wider range of its applications? It seems that with a reference to rich science contexts and the process of scientific experiments, inductive reasoning can be widely exercised. New technologies open the doors for trying new teaching strategies and lesson organizations. In this paper, we present an alternative method of exercising inductive reasoning in mathematics classes with the support of physics simulations. Findings of the research conducted in a South-Central Texas high school (Sokolowski, Walters, 2010) show that mathematics students not only enjoy and appreciate the new learning environment but that they also learn more and score higher on standardized tests, especially in areas related to analysis and synthesis.

Keywords: Inductive Reasoning – Induction – Physics Simulations – Mathematics – Teaching Method

The concepts of mathematics are derived by abstraction from direct experience of the physical world, from the generalization and reflective abstraction of previously constructed concepts, by negotiating meanings with others during discourse, or by some combination of these means.

-Paul Ernest

1. Inductive Reasoning as an Effective Teaching Method

Reasoning is a thought process that involves judging, inferring, generalizing, and comparing. Among the many types of reasoning, inductive reasoning is one of the most commonly utilized across all subjects and grade levels (Joyce, 2009). This type of reasoning has vast applications in engineering. Therefore, expanding this discourse in high school education not only serves to enhance the goals of high school mathematics curriculum but also encourages and prepares students to enter the field of engineering, where new knowledge construction is so essential.

Inductive reasoning, or induction, leads to a general law (statement) derived from specific cases. This “bottom up” approach draws inferences from observations in order to make generalizations. Instructional units involving inductive teaching usually contain four stages (Joyce, 2009): focus, conceptual control, inference, and confirmation. In order to parallel this process of epistemology to its scientific counterpart, we modify it by adding another stage: problem statement.

1. *Problem statement* is the form of a question that students answer while working on a given experiment.

2. *Focus* is building (collecting) data and asking students to study the attributes of the data set and formulate the hypothesis.

3. *Conceptual control* (analysis) is classifying the facts and identifying patterns of regularity.

4. *Inference* is a generalization (formulation of a pattern or law) about the relations between the collected facts that leads to acquiring a general (mathematical) equation or function.

5. *Confirmation* is verifying the derived model in new (physical) circumstances conducted through testing inference and further observations.

Inductive reasoning as an instructional method allows for encompassing factual information in an environment that the student retains and can easily apply in other subjects. Students are placed in the role of a scientist who actively constructs new knowledge from abstraction. By exercising inductive thinking, practitioners learn to select information based on scientific validity, a cognitive skill that they can apply in other subject areas as well as in their work places.

2. Why Physics Simulations?

Physics simulations selected for this project are provided free online by The Physics Education Technology Team (PhET) at Colorado University at Boulder. Due to their primary purpose of enhancing the teaching of physics, biology, and chemistry at both the undergraduate and graduate levels, they are carefully designed. Their effectiveness in science classes has been widely documented by the science PhET team.

While working on the virtual labs, students can state hypotheses, observe scientific processes, take measurements, construct mathematical models, and validate derived mathematical functions. The variables of the experiments can be modified, and the outputs can be predicated and verified. With the aide of graphing technology, derived mathematical abstract formulas can be quickly validated. Research conducted by PhET (Finkelstein et al., 2004) showed that the simulations can be substituted effectively for real laboratory equipment in physics classes. Due to these findings, it was hypothesized that these simulations can also enhance the teaching of mathematics and provide a reach field for exercising inductive reasoning.

3. The Structure of the Activity

Presented below is a stem of the activity that shows how the simulation “Wave on a String” is utilized to exercise inductive reasoning in a trigonometry class. The key stages of inductive reasoning are highlighted. Practitioners can work independently in front of the computer, or the simulation can be displayed on a screen and the teacher can guide the students through the process of the experiment and knowledge acquisition.

3.1. Introduction of the Concept and Demonstration of the Simulation

The teacher opens the simulation at http://phet.colorado.edu/teacherideas/view-contribution.php?contribution_id=326 and demonstrates its features, focusing the students’ attention on the shape of the string while it transmits energy.

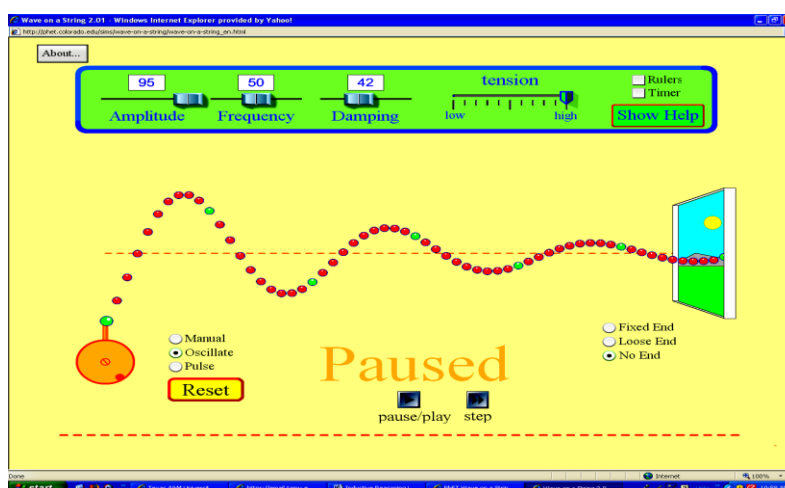


Figure 1: General demonstration of the features of the simulation.

The teacher might direct students’ attention to frequency and amplitude, as these two physical factors relate directly to formulating sinusoidal function.

3.2. Problem Statement

In this stage, the teacher presents the problem statement: Can a *sinusoidal function* be applied to model motion of energy on a string?

3.3. Focus/Gathering Information/Stating Hypothesis

In this part, the teacher discusses in detail the critical components of the sinusoidal functions and how these quantities can be identified in the experiment.

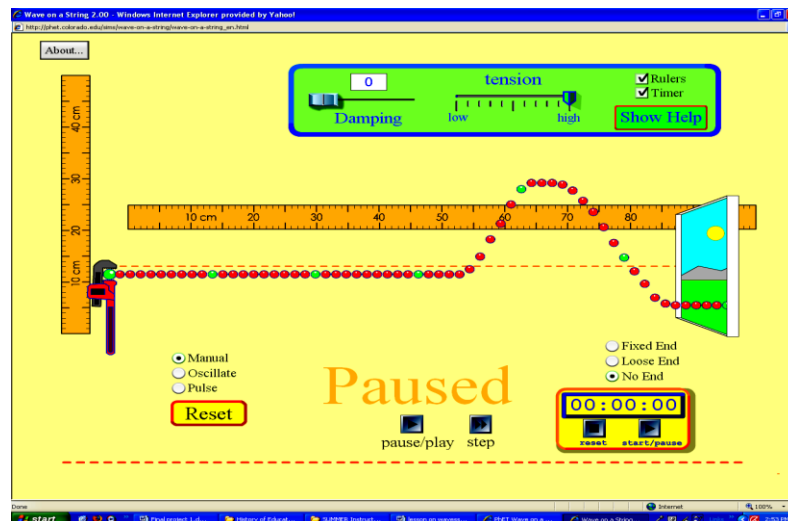


Figure 2: Preparing the simulation to gather necessary parameters.

The teacher also demonstrates the measuring devices, such as the ruler and the stopwatch, that are embedded in the simulation to quantify the values of the highlighted parameters.

3.4. Analysis/Conceptual Control

During this stage, students focus on measuring necessary quantities that will constitute the form of the sinusoidal function such as *period*, *amplitude*, and *vertical transformation* of the wave.

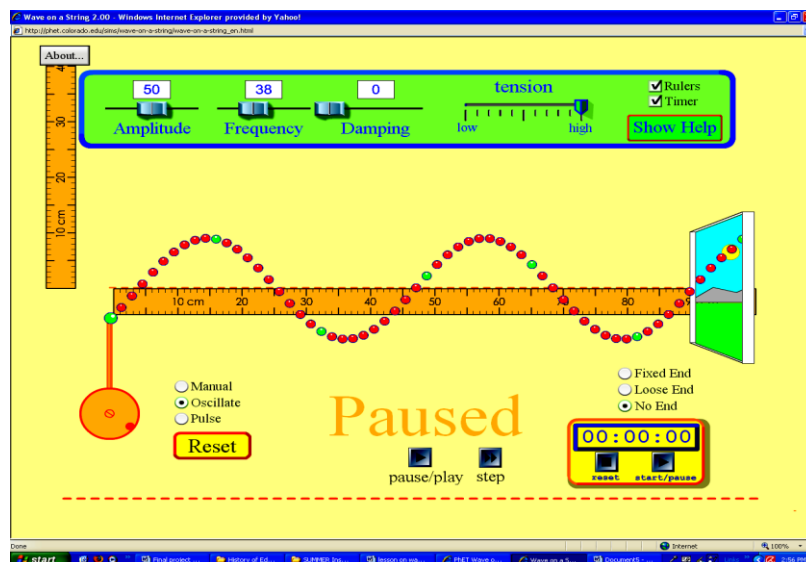


Figure 3: Quantifying parameters.

3.5. Generalization of the Analysis

In this stage, students utilize gathered parameters to transfer them into mathematical abstraction. In order to assist them with this essential process, the

teacher might offer suggestions in the form of answers to multiple-choice questions. Samples of such questions are provided below.

$$y = A \sin\left(\frac{2\pi}{T}t\right)$$

A general form of a sinusoidal function is as follows:

- Select the quantity that represents the measured average time of one full cycle.
 - A. frequency (**f**) B. amplitude (**A**) C. period (**T**) D. general time variable (**t**)
- Select the quantity that represents the “maximum height of the wave” as measured from the rest position.
 - A. general time variable (**t**) B. height of wave (**y**) C. amplitude (**A**) D. period (**T**)
- Select the quantity that represents the dependent variable in this function.
 - A. amplitude (**A**) B. vertical position of wave (**y**) C. general variable (**t**) D. period (**T**)

After students complete the short assessment, the teacher discusses the answers and then lets the students construct the mathematical model. Students substitute the values of these quantified parameters to the general form of

$$y = A \sin\left(\frac{2\pi}{T}t\right)$$

and complete the function equation.

3.6. Verification and Confirmation of the Derived Model

This stage is very important in the process of the lesson. When working on typical paper-and-pencil problems, this element is often omitted because the physical representation is not given. The availability of the simulation provides a great opportunity for contrasting observed motion with the derived model. Students can use a graphing calculator or any technological tool that converts an algebraic function into graph. If graphing technology is not available, students can verify the model the old-fashioned way—using a *table of values*. They may not be excited about using this method, though.

Further testing confirms that the model works not only in the given conditions but also in a modified environment. Questions in regards to this part are presented below.

- Suppose that the x-axis—the draggable reference (dotted) line—is moved 30 cm below the string. Which parameter of the derived function changed?
 - A. wavelength B. vertical transformation C. period D. horizontal compression

Write equation for new function: _____

- Due to modified frequency, there are twice as many waves observed on the string. Which parameter of the sinusoidal function changed?

A. amplitude B. vertical transformation C. period D. horizontal compression

Write equation for new function: _____

- Suppose that the maximum *height* of the wave increased by 10 cm. Which parameter changed?

A. amplitude B. vertical transformation C. period D. horizontal compression

Write equation for new function: _____

3.7. Conclusions

During this part, students conclude their hypotheses, share their thoughts about the experiment, and suggest ways of modifying or improving this new epistemology of knowledge construction.

4. What Impact Do The Simulations Have on Student Learning?

Students find the lessons utilizing simulations very attractive, and they highly praise their learning value. We used the simulations to enhance not only the teaching of trigonometry but also other mathematics sections such as polynomial and transcendental functions. We also utilized these simulations in calculus classes to enhance the teaching of derivatives and integrals. It is important to add that all calculus students in our study group took the Advanced Placement Calculus exam in 2009, and the passing rate on the exam was 100%, with an average score of 4.8 out of 5. In addition, they exceeded the national means by more than 100% in all main calculus sections. Independent *t-tests* also proved statistical significance of these results. We believe that the virtual physical world and applications of math to understand the world helped the students achieve this success. We realize that a need for a more systematic study of the effectiveness of the simulations in mathematical classes is necessary to further promote them. We hope to receive support to continue this study.

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Attitude towards Biology and its Effects on Student's Achievement

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Abstract

The main purpose of this study was to examine the relation between attitudes towards science in biology courses and students' biology achievement. A total of 185 grade 12 (age 17-18 years) students in Isfahan answered to a 30-item questionnaire provided by authors based on STAQ-R inventory. The results showed that among attitude towards science dimensions, only "biology is fun for me", has meaningful and positive relation with students' achievement in biology. Also there was no significant difference between girls and boys in attitude towards biology, although girls had better achievements in biology in comparison with boys.

Keywords: Attitudes towards science - Achievement in biology - Attitude towards biology - Biology education

1. Introduction

With global scientific and technological growth occurring rapidly, declining student interest in science courses and careers is a worldwide concern that has prompted science education reform efforts on an international scale. Since student attitudes toward science effect course and career choices, measuring the impact of reform efforts on student attitudes is important and will require measurement tools with robust psychometric properties (Owen et al, 2008). Attitudinal studies in science education area are mostly pertinent to elementary, middle and high school students', and in some cases college students' attitudes towards science (Turkmen, 2007). As science has become ever more deeply embedded in our everyday life, how ordinary people perceive science has attracted growing attention not only from the scientific community, but also from social scientists (Bak, 2001). A significant amount of research in science education is devoted to understanding ways we can improve the quality of science education and increase enrolment in science courses and degrees. One of the key factors in learning science is students' attitudes and the development of positive attitudes toward science can motivate student interest in science education and science-related careers (George, 2006).

However definition or concept of attitude towards science is vague and ambiguous, but attitude is concept that defines emotional trends in response to affaires, persons, locations, events or ideas Therefore phrases as "I like science" or " I enjoy science courses" enumerate as attitude(Simpson and Oliver, 1990).

There are many factors that influence attitudes and achievement among adolescents. Some of the factors are associated with parental background and family environment. Other factors relate to individual characteristics such as self-concept, locus of control, and achievement motivation. Still other variables are associated with schools influences such as class climate, teachers, and administrative styles (Talton and Simpson, 1985). According to Osborne et al (2003), Studies have incorporated a range of components in their measures of attitudes to science including: the perception of the science teacher; anxiety toward science; the value of science; self-esteem at science; motivation towards science; enjoyment of science; attitudes of peers and friends towards science; attitudes of parents towards science; the nature of the classroom environment; achievement in science; and fear of failure on course.

As Osborne et al (2003) cited in their review, However, Gardner's research (1995) offered little support for any strong relationship between attitude and achievement, Schibeci (1984) draws a stronger link between the two, quoting studies that show a correlation of 0.3–0.5. However, he also cites studies that show no relationship. The current position is best articulated by Shrigley (1990), who argues that attitude and ability scores can be expected to correlate moderately. Likewise, the measures used in the TIMSS study, albeit somewhat unsophisticated, have found a consistent relationship between attitude and achievement (Beaton et al. 1996). Weinburgh's (1995) meta-analysis of the research suggests that there is only a moderate correlation between attitude towards science and achievement. Longitudinal study of Oliver and Simpson (1988) shows a strong relationship between the three affective variables – attitude towards science, motivation to achieve and the self-concept that the individual has of their own ability – and their achievement in science.

Though many of researches on attitude towards science have dealt with science in general, but there are some researches that examine this concept in specific science courses as physics or chemistry and so on. For example Krogh (2005) assessed secondary students attitude towards physics and also Howe and Durr (1982) and Bennett (2001), did some similar researches on chemistry. Regarding the importance of attitude towards science between adolescents, in this paper, attitudes of secondary students towards biology and its effects on student achievements in biology courses were examined.

Based on the theoretical background, the research questions of this study were:

- 1- Is there any relation between attitude towards biology and students' achievements in biology courses at following dimentions?
 - a. Motivating Biology Class;
 - b. Self-Directed Efforts;
 - c. Family Models;
 - d. Biology is Fun for Me;
 - e. Peer Models.
- 2- Is there any significant difference in students' attitude towards biology in terms of gender?
- 3- Is there any significant difference in students' biology achievement in terms of gender?

2. Method

A questionnaire containing 30- item was used for this research which was based on Simpson-Troost Attitude Questionnaire-revised (STAQ-R). STAQ-revised is a revised form of Simpson-Troost attitude questionnaire that was developed by Owen et al (2008) to assess adolescent commitment to and achievement in science. STAQ has 22 Likert items that examines attitude towards science but we added 8 items to it regarding cultural and ethical properties of our country Iran. This instrument has 5 dimensions that each one includes from 4 to 9 items (Table 1). These inventory subscales that evaluate attitudes towards biology in 12 grade secondary students are: motivating biology class; self-directed efforts; family models; biology is fun for me; and peer models. We added some demographic questions as gender and economical class and collect student's scores in biology from high schools from which students had been chosen.

After pilot implementation of instrument, reliability coefficient (cronbach'alpha) was 0.85 that showed questions have strong internal correlation. Then a total of 185 grade 12 students (age 17-18 years) from secondary students of Isfahan were chosen to participate in research who answered to 30-item questionnaire that assesses their attitudes towards biology. After inventory implementation, data were analyzed with the statistical software, SPSS version 16.00.

Table 1 Questionnaire subscales, number and sample of questions

| subscales | Number of questions | Sample of questions |
|--------------------------|---------------------|---|
| Motivating Biology Class | 9 | I consider our biology classroom attractive and comfortable |
| Self-Directed Efforts | 6 | I tray hard to do well in biology |
| Family Models | 5 | My family watches biology programs on TV |
| Biology is Fun for Me | 6 | I really like biology |
| Peer Models | 4 | My best friend likes biology |

3. Results

The study proposed to examine attitude towards biology in secondary students and its effects on students' achievements in biology courses. Analysis of results indicated no significant difference between attitude towards biology and students' achievements in biology courses ($p < 0.05$, $r = 0.12$). Coefficient of determination showed that there is 0.014 between attitude towards biology and biology achievement (Table 2).

Table 2 Correlation coefficient between attitude and achievement

| Variable | r | R2 | Sig. |
|--------------------------|------|-------|------|
| Attitude and achievement | 0.12 | 0.014 | 0.08 |

Correlation coefficient between "motivating biology class" and students' biology achievement was 0.025($p < 0.05$). This coefficient between "self-directed efforts" and biology achievement was 0.091($p < 0.05$). Correlation coefficient between "family models" and biology achievement was 0.036($p < 0.05$) and between "peer models" and biology achievement was 0.067($p < 0.05$). But this coefficient between "biology is fun for me" and biology achievement was 0.304($p < 0.05$), that showed among all of attitudes towards biology dimensions, only this dimension has positive and meaningful relation with students' biology achievements (Table 3).

Table 3 Correlation coefficient between dimensions of attitude and achievement

| Variable | r | R2 | Sig. |
|--------------------------|-------|--------|-------|
| Motivating Biology Class | 0.025 | 0.0006 | 0.735 |
| Self-Directed Efforts | 0.091 | 0.0082 | 0.218 |
| Family Models | 0.036 | 0.0013 | 0.624 |
| Biology is Fun for Me | 0.304 | 0.09 | 0.000 |
| Peer Models | 0.067 | 0.0045 | 0.362 |

Also regression analysis results of attitude dimensions and students' achievements in biology (Table 4) showed that there is a positive and significant relation between "biology is fun for me" and students' achievements.

Table 4 Regression analysis of attitude' dimensions and achievement

| Model | t | St. deviation | Sig. |
|--------------------------|------------|---------------|-------|
| Total Mean | 9.851 | 1.242 | 0.000 |
| Peer Models | 0.089 | 0.040 | 0.929 |
| Biology is Fun for Me | 4.221 | 0.046 | 0.000 |
| Family Models | - 0.986 | 0.050 | 0.325 |
| Self-Directed Efforts | - 0.871 | 0.045 | 0.385 |
| Motivating Biology Class | 0.422 | 0.012 | 0.673 |

To examine second question T-test for independent means was used. According to the results of this test, there is no significant difference between girls and boys on attitude towards biology ($p < 0.05$) (Table 5).

Table 5 Results of T-test for independent means of attitude towards biology in terms of gender

| | | Mean | Std .deviation | df | t | Sig. |
|--------------------------|------|--------|----------------|-----|------|------|
| variable | sex | | | | | |
| Attitude towards biology | girl | 115.56 | 10.94 | 184 | 1.72 | 0.08 |
| | boy | 110.98 | 22.32 | | | |

Also results of used independent T-test indicated that girls have better achievements in biology comparing with boys ($p < 0.05$) (Table 6).

Table 6 Results of T-test for independent means of biology achievement in terms of gender

| variable | sex | Mean | Std. deviation | df | t | Sig. |
|--------------------------|------|-------|----------------|-----|------|------|
| Attitude towards biology | girl | 16.40 | 2.10 | 184 | 3.92 | 0.00 |
| | boy | 15.15 | 2.19 | | | |

4. Discussion

One of the usages of attitude study instruments in science education is assaying students' attitude towards science at elementary and secondary levels. Attitude towards science affects course and career choices of students and it is important to examine its different aspects and reinforce weak aspects through designing different educational programs. Biology as an important branch of science plays a substantial role in attitude towards science.

This study examined relation between attitudes towards science in biology courses and students' biology achievement. However results of this study showed that there is no statically significant difference between attitude towards biology and students' biology achievements but among five dimensions of attitude towards biology only "biology is fun for me" has meaningful relation with students' achievements. It means that considering fun aspects in biology is an important issue in biology education. In other words, when students sense that biology courses and educational materials in biology make a fun atmosphere in class, school and home, their positive attitudes towards biology have increased and this results in better achievement in biology.

Sex is one of the important variables related towards pupils' attitude to science. Some researches have shown that there is no relation between gender and attitude towards science (Greenfield, 1997), and results of this research are consistent with these studies. However, numerous of research studies have shown that boys have a consistently more positive attitude to school science than girls, although this effect is stronger in physics than in biology and girls' attitudes to science are significantly less positive than boys (Osborne, et al, 2003). This study confirms these studies. Nonetheless results indicated that girls' achievements in biology are significantly better than boys that this is normal in terms of better achievements of Iranian girls.

The educational implementations of this study are that we should make biological curriculum fun for students. It may suggest that we implement fun materials, texts and instruction methods. We can also inform biology teachers in in-service educations that have further more emphasis on this aspect of attitude towards biology.

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Evaluation of a Professional Counselling Practice Aimed at Students in Secondary Education

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Abstract

The purpose of this study is to evaluate a professional counselling practice. The study was designed as a case study. The study group consists of 90 students who receive education at Mehmet-Munevver Kurban Anatolian High School in the Meram district of Konya, Turkey. The importance of choosing a profession and factors of affect choice of profession was explained by the researcher to the students in the present study. The importance of secondary education in terms of selection of a profession was explained and information was provided about higher education examinations and programmes. As a result of the information provided by the researcher, It was as a result of this study that students became more informed and aware about selection of a profession. It is believed that by this way the decisions that students will take in secondary education regarding selection of a profession will be more informed.

Keywords: Counselling – Guidance - Vocational Guidance.

1. Introduction

In Turkey, education system was determined with National Education Law. According to this law, Turkish national education system is composed of two main parts as formal and informal education. Formal education system is composed of pre-school, primary school, secondary education and high education. Among pre-school institutions there are nurseries and kindergartens, primary school institutions include primary schools, among secondary education institutions there are general, vocational and technical high schools, and among university schools there are faculties, graduate schools and high schools which are affiliated with universities. Formal education is divided into certain years and periods and those who finish these periods successfully are given diploma or an academic degree (Demirel & Kaya, 2006).

The aim and duty of secondary institutions which include general high school education and vocational and technical high schools based on 8 years of compulsory education is to provide students with a common general culture and to prepare them to a profession, higher education and business life via various programs to be followed. Every student finishing primary school and gains right to enter secondary education has the right to pursue secondary school (Ada, 2001; Izgar, 2007). 9th grade is a common training class for secondary school students. The students who pass to 10th grade students choose science, social sciences, Turkish-mathematic or foreign language considering their academic success and their preferences.

Secondary education is an important period for entrance to higher education and professional choice because in Turkey passage from secondary education to higher education is done with central exam. This exam was done as one exam called Student Selection Exam (ÖSS) in the previous years, from 2010 on it is done as two stage exam which are called Exam for Passage to Higher Education (YGS) and Undergraduate Placement Exam (LYS). In this exam the field choice students make at the end of the 9th grade is also decisive in the higher education. Students making choices in higher education in accordance with the field they choose in secondary brings them to a more advantageous situation in university entrance compared to those who choose other fields. However, secondary education students make their field and professional choice without knowing their own abilities and interests, without assessing the conditions realistically and without having correct and sufficient information (Yeşilyaprak, 2000).

Under this circumstance, the students in secondary education are to be provided with vocational guidance at professional level to enter an appropriate higher education program suitable for their interest, ability and characteristics and to make correct decision in their vocational. In the assessment of the results of vocational guidance application is crucial in that it will provide guidance for new applications to be undertaken.

The aim of this study is to assess a vocational guidance application to raise the awareness of students attending a secondary school - without an expert of psychological counseling and guidance - about field choice and vocation choice and to assistance them make correct vocational choice.

2. Method

This study is planned as a case study. Case study which is a qualitative research model is regarded to be a distinctive approach in terms of the stage of seeking answers to scientific questions. The main aim of the case study is to make detailed descriptions about a case (Büyüköztürk et al, 2008).

In studies, case study is used to describe and see details which make up an event and to develop possible explanations and to assess an event (Gall, Borg and Gall, 1996; Cited in Büyüköztürk et al., 2008).

This study was carried out on 90 students attending 9th grade Münevver Kurban Anatolian High School in Meram district of Konya, Turkey, which was opened in 2009–2010 education year and which do not have Psychological Counselling and Guidance expert.

The study was done in 13 January 2010 upon the invitation from the school management. In this study, a presentation about vocations, vocation choice and the importance of vocational choice was given to school students who come together in the school's conference hall. In the presentation, personal features, abilities, interests and other values were explained and the things to given attention to making effective vocational choice were emphasized. The importance of secondary school in vocational choice was explained. Because of the

importance of field choice in secondary education the 9th grade in vocational choice, the courses which are source for secondary education fields and field choice are mentioned. Students in Sciences, Turkish Mathematic, Foreign Language and Social Sciences fields are given information about the Higher Education Passage Exam (YGS), Undergraduate Placement Exam (LYS) and the test to appear in this exam and the questions students ask were answered. The presentation lasted 45 minutes, student questions and their answers lasted 60 minutes. The data of the study is composed of the questions asked by students at the end of the presentation. The analysis of data was performed with content analysis.

2.1. Application Process

In this part, the content of the presentation made to the students is given. Vocation is defined as "a collection of activities based on knowledge and skills acquired with a certain education and which one does to make a living. Its rules are determined by the society (Yeşilyaprak, 2000)", it was also pointed out that vocation is not solely a means of individuals meeting economic needs.

It was emphasized that vocation choice is one of the most important things in the life of an individual, and that vocation choice is also a matter of making life style choice.

It was emphasized that for an efficient vocation choice, individual should firstly associate their own interests, abilities, values and personal characteristics with the features of the vocation.

It was pointed out that the best vocation is the one which suits the characteristics and the conditions of individual, one which will satisfy him/her the most and in which s/he can realize using all her/his abilities and capacities (Yeşilyaprak, 2000).

It was explained that secondary education period is the most important for vocational choice. It was emphasized that while making a vocational choice it is necessary to choose an occupation in line with interest, ability, value and personal characteristics and in line with the research/reports about labor force supply and demand in our country to tend towards occupations demanded, to choose occupations which are declared to be rising value by human resources and the favorite occupations of the future.

Among the factors that affect vocation choice personal characteristics, social characteristics political, economic, law and system related properties and chance elements were explained. It was marked that an individual to be able to make robust and realistic occupational choice, s/he is to have detailed information about himself/herself and the occupation s/he will choose, and to know how much his/her characteristics and the features of the occupation are intertwined. It was explained that vocation choice is individual's assessment of appropriate vocations in many ways and deciding to incline toward a vocation with a lot of desired properties but with few undesired properties.

It was pointed out that the most important components that affect vocation choice are personal traits, skills, interests and values. Competence is defined as learning power and to be able to make use of a certain instruction. It was stated that competence means the part of inherited potential which is developed with training and environment (Kuzgun, 1988).

It was emphasized that while one choosing a vocation or a preparatory education program, s/he must consider what type of competence s/he has and to research the work field in which s/he can use the competence s/he has the most.

It was expressed that one can only be successful in a field in which s/he is talented.

Below are some examples for these skills (Kuzgun, 2000).

- General academic skill,
- Verbal skills,
- Numerical skills,
- The ability to see Spatial relations,
- The ability to see Shape relations,
- Skills in office works,
- Eye-hand coordination,
- Finger skill,
- Hand skill etc.

It was emphasized that interests are related with whether one likes doing an activity or not, and that interest is in a way means the pleasure of using skills and developing them.

The following examples are given for interests:

- Main science interest (medicine, engineering),
- Social science information (law, psychology sociology),
- Interests in living beings (biology),
- Interest in mechanic (machine, electric-electronic),
- Interest in persuasion (author, journalist, diplomat),
- Interests in work details (accountant, secretary),

- Interest in social assistance (social services, psychological counseling and guidance child development) and so on (Kuzgun, 2008).

It was stated that the satisfaction expected satisfaction from vocational activities is generally defined as "vocational value", it was also mentioned that it includes the satisfactions from the environment the activity is performed and from the social rewards it brings about.

It is stated that the answers given to questions such as "Why do I work?", "What do I expect from my job, life?" reflect ones' vocational value.

Examples of some of the values are given below.

- Using skill and developing it,
- Creativeness,
- Developing interests,
- Change,
- Income,
- Leading a regular and stable life,
- Taking risk,
- Leadership,
- Independence,
- Cooperation,
- Social respect,
- Competition etc (Kuzgun, 2000).

The importance of personal traits in vocation choice and that each vocation requires some unique personal traits was told. The issue of field choice was elaborated on and it was emphasized that field choice in secondary school is the first stage of vocational choice. It was stated that students' field choice is closely related to the vocational field s/he will choose and with the higher education program which is a source of the vocation. It was explained that students are to direct or to be directed to the fields in accordance with their interests, needs, skills, personal traits and success in courses.

Before making a field choice, students are asked to find answers for the following questions:

1. Is the field which you are thinking of choosing is appropriate to your interest, skill, desire, personal traits and future plans?
2. What is the relation between higher education programs and secondary education fields?
3. Which departments/vocations can be preferred in line with the field they are planning to choose?
4. In which fields which courses are thought for how many hours a week? How many questions are asked about these courses in the Higher Education Passage Exam (YGS) and Undergraduate Placement Exam (LYS)?

5. In which courses is your success is high? Which courses does s/he like studying?

6. What is the weight of the courses given in the chosen field on in the Higher Education Passage Exam (YGS) and Undergraduate Placement Exam (LYS)?

Fields and the courses which form the source are explained in the following way (National Education Ministry Special Education Guidance and Counseling Services General Directory, 2009).

- Field of Sciences (Biology-Physics-Chemistry-Mathematics),
- Field of Social Sciences (Language and Expression, Turkish Literature-History Geography),
- Field of Turkish Mathematics (Language and Expression, Turkish Literature-Mathematics),
- Foreign Language Field (Language and Expression, Turkish Literature-Foreign Language).

The following mistakes done in field choice were accentuated.

1. Making field choice without understanding the importance of field choice.
2. Choosing a field without having adequate information about the field courses.
3. Making choice in line with desires without having skills for field course.
4. Choosing a field which is not suitable to their interest and abilities with the guidance of friend group.
5. Choosing a field which is not suitable to their interest and abilities with the guidance of the people who are not component in field choice.
6. Making a field choice without knowing from which fields students are accepted to Higher Education programs.

The higher education exams and the tests in these exams the students in the Sciences field are given in tables.

The higher education exam and test in the exams students of Turkish-Mathematic field are shown in tables.

The higher education exams and the tests in these exams the students in the foreign language field are given in tables.

The higher education exams and the tests in these exams the students in the Social Sciences field are given in tables.

Higher education undergraduate programs accepting students with Higher Education Passage Exam (YGS) prepared by Student Selection and Placement Center (ÖSYM) (2010) (YGS) and score type tables for 2010-Student Selection and Placement Exam (ÖSYS) are given.

Higher education programs accepting students with Mathematics-Science (MS), Turkish Mathematic (TM), Turkish Social (TS) and LANGUAGE scores and 2010-OSYS score types are given in tables prepared by OSYM (2010).

3. Findings

The findings are composed of the questions asked by students. After content analysis, students' questions were classified under 5 themes.

1. Field choice-Vocation relation,
2. The relation of Field Choice-Higher education program to be entered,
3. Vocational choice-The tests to be answered in YGS and LYS,
4. The vocations with employment opportunity,
5. Expert assistance.

The examples for the questions classified in themes are given below.

- A student asked, "What are the jobs demanded in our country?"
- A student who wants to enter medicine faculty asked "Which field should I choose to enter medicine faculty? Which tests am I supposed to answer in Higher education entrance exams (YGS and LYS)?"
- Another student asked, "Do I have to answer all tests in higher education entrance exams (YGS and LYS)? What happens if I answer all questions?"
- A student who wants to enter a higher education program in language field asked "Which test will I answer in Higher Education Passage Exam (YGS) and Undergraduate Placement Exam (LYS)?"
- A student in a asked whiningly "Do adaptation problems affect success at school?"
- A student asked "From time to time I need psychological assistance, who can I turn to for assistance? How can I apply to experts? And how can I get assistance?"

4. Conclusion and Recommendations

4.1. Conclusion

It was found out that students became more conscious about vocation choice at the end of this study. Therefore, it is thought that students will be able to make more correct decisions about their vocations and choose higher education programs which are more suitable to their own personal traits. Besides, as a result of this study it was also observed that students also show great interest to psychological counseling and guidance services.

All these indicate that the students of the schools without psychological counseling and guidance expert need expert assistance about psychological counseling and guidance especially in terms of vocational guidance. According to Yeşilyaprak (2000), at the end of high school young people will either graduate and enter business life or will head for higher education and pursue his/her education to have a certain vocation. In both cases, there is a decision that will affect the rest of a young person's life. For this decision to be the most suitable one for the individual it is crucial for him/her to be able to receive assistance services necessary for vocational development

So the students in secondary education institutions need professional psychological counseling and guidance assistance to be able to solve the problems adolescence bring about and to make correct decisions about future, in short to be make healthy and happy .

4.2. Recommendations

Under the light of the findings of the study, the following recommendations were made.

1. There must be a full time expert support for psychological counseling and guidance to students in secondary education institutions. If it is not possible at least an expert who can offer service to students a day or a few days a week is to be appointed.
2. Expert assistance to be given in secondary education is to be intended to solve various problems of the students besides enabling them to choose an appropriate field and vocation.
3. In the scope of vocational guidance studies, vocations and higher education programs are to be introduced and information about passage to higher education and vocational conscious are to be given.
4. Students' need for vocational guidance services can be determined with a quantitative research method as well.

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The Impact of Universities in the Development of Local Communities - A Portuguese Experience

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Abstract

Universidade Lusíada de Vila Nova de Famalicão is a small private University located in the Northern region of Portugal. In this paper we try to analyze the economic and social impact of the University in its neighboring region. We made a survey of possibilities to be used in the analysis, and for lack of data ended up using basic statistical data. Anyway we found ground to conclude that the University is responsible at least by 3% of the GDP of its neighboring region in a conservative estimate and that UL VNF already graduated a number of individuals equal to the graduates which are not self employed in the neighboring region.

Keywords: Higher Education – Impacts – Portugal - Local Development

1. Introduction

In this paper we try to define the impact of an institution of Higher Education (Universidade Lusíada de Vila Nova de Famalicão UL-VNF) in its neighbouring region. The study finds its justification in a perspective of investment. UL-VNF is a small University owned by a private non profitable entity: Fundação Minerva. UL-VNF was founded in 1989 and has graduated some 2800 students in its 20 first years of existence. Currently UL-VNF provides students with first degree diplomas in Accountancy, Economics, Management, Marketing, Civil Engineering, Industrial Engineering, Electronic Engineering, Textile Engineering and Architecture. Therefore it is quite interesting and important to try to define what was the effect the University had in the neighbouring region. Furthermore, Famalicão is also a new city (celebrating 25 years in 2010) located in the North of Portugal, between Porto and Braga. The neighbouring region of Famalicão is at the hearth of the industrial Portugal. However, Portugal is also facing a big adjustment process in economic terms, particularly after the adhesion to the Eurozone, in 2001. Since then, "competitive devaluations" became impossible, and the country had to survive with the same budget constraints and monetary policies as its main trading partners, namely France, Germany and Spain. That change led to massive transformations in the Portuguese economic structure, a process which is still happening. The Northern region is probably the Portuguese region which will suffer more with the adjustment derived from the Eurozone membership, because it is the region where the specialization pattern was more based in low skilled industries, whose competitiveness was guaranteed by the mentioned "competitive devaluations". Even if Portugal is one of the 27 EU members and one of the 14 Eurozone members, Portugal is still relatively low

ranked in the development tables. In fact Portugal might be considered one of the less developed among the developed countries (UNDP 2009; World Bank 2009). The situation gets worse when education and Knowledge are considered (OECD, 2009, World Bank 2010): Portugal is still by far the worst of the developed countries in what concerns education and knowledge levels. This situation happens even if it is clear that in the last 35 countries a massive improvement in education and knowledge levels happened in the country (Tomé, 2008a). The improvement conducted Portugal from a low skills equilibrium to a medium skills equilibrium. However another bigger challenge still has to be met: change from a medium equilibrium to a high level one, meaning that services have to replace industry as the main economic driver. That industrial change has to happen all around the country, but particularly in the Northern Region. Therefore UL VNF may be a factor of the transformation of its neighbouring region from the 20th century industry based world to the 21st century services driven and knowledge based economy. In this context, in this paper we begin by exposing the main theories on the economic impact of universities in section 2.1 and by mentioning some well known studies in section 2.2. Then we describe the UL VNF region in section 3. Finally we define a method of analysis (4.1), present data collected (4.2), provide some analysis (4.3) and discuss the findings (4.4). The last section includes the paper's main conclusions (5.1), refer to some limitations (5.2) and indicate some suggestions to further research (5.2).

2. Previous work: theoretical background and known experiences

2.1. Theoretical background

2.1.1 Concepts

Higher Education is universally considered to be the phase of the formal educative process that takes place after the end of secondary studies. It is a phase which nowadays is itself divided in many sub phases, corresponding to several degrees: bachelor (3 years), master (2 years including a Thesis), PhD (3 more years including a thesis). Sometimes, the possibility of a post graduation between the bachelor phase and the master phase also exists. This differentiation among the Higher Education courses is important in terms of the theoretical explanation of the phenomenon (see 2.1.2). However it is also important to notice that Portugal adopted this curricular structure in 2006, when the European Union Bologna Process was enforced. In the old times, namely when UL VNF was created, in Portugal, the first degree was composed of 5 years, the master of 3 including a thesis, and the PhD of 5 more, with the possibility of an extension. Quite crucially, when UL VNF was created, higher education was an elitist investment in Portugal, and masters and PhD courses a rarity attended by University teachers, in order to climb the career ladder. Nowadays, with the Bologna Process the situation is changing quickly, and the possibility of further change is wide open. First degree University courses are seen as a "licence to learn" as in the work of the celebrated Prof Adriano Moreira (Mendonça, nd, pp 5) and as the first step to a job according to the statistics on unemployment by the National Institute of Statistics. Additionally, Master courses are seen as a necessary specialization, and PhD courses as the certificate of "expertise" in a

given area. In the current situation of economic turmoil, Master and PhD courses are probably the best investment individuals, organizations, the Government and the society as a whole can make in order to assure Portugal a prosperous future. In this context, UL VNF becomes a quite interesting organization.

Local development is a segment of regional development which in turn is a part of economic development analysis. In the 20th century, economic growth and economic development were replaced by sustained development and by sustainable development as the main goals of the economic life. This change meant that qualitative and intangible aspects of life became more and more decisive (Edvinson and Malone, 1997; Mortensen 2001). Also, and in a time of growing globalisation, localisms saw their economic significance accrued: thing global act local becoming a necessity for a successful economic strategy. Success in local development requires the right production factors, and a mix of international, national, regional and local policies and planning. Universities may be one of the factors of local development, because they contribute to the increase in the intangibility of the local development.

2.1.2 Theories

2.1.2.1 Why to invest in Education ?

The investment in higher education is a part of the investment in education. The investment in education is explained by the Human Capital Theory (HCT) (Becker 1993, Schultz 1961) and should be made whenever expected returns surpass expected costs.

According to the HCT theory, HE is a strong factor of economic development. The assessment of that impact might be made in microeconomic, in local or in macroeconomic terms. In microeconomic terms it has been widely observed in the world countries that the age-earning profiles for higher education have higher values than those for secondary school graduates, and therefore for all the other levels of education (Murphy and Wells.1990). For countries like Portugal in which many only 20% of the labour force completed secondary school, the dynamics of the age earning profiles scheme is also interesting, meaning that when a worker decides to invest in his higher education, he is currently trying to climb a ladder in the profiles scale. The dynamics of investing in higher levels of education is also very important given that since 2006 in Portugal people over 23 years of age may access the University without having to complete the secondary studies. This policy measure is a way of trying to increase the Portuguese levels of academic graduates, assuming that ordinary workers might benefit strongly from having university degrees even if they enter Universities based on formal schooling and also on work related experience. However the impact of HE investments is not only measured by increases in wages. Higher education has microeconomic effects in the quality of jobs, and in macroeconomic variables such as consumption and even exports. The presence of a university contributes to the regional economy by enhancing human capital through education, by creating new knowledge through research activity, by

developing and transferring new technology, and by creating favourable environments that attract innovative businesses and individuals.

2.1.2.2 The market of Higher Education

The market for higher education may be defined in terms of demand, supply, equilibrium, price, quantity, need, investment, stock, flow and return, has shown in the following Table 1:

Main variables in the market of Higher Education

| Variable | Meaning |
|--------------------|--|
| Demand | How much HE organizations / regions want |
| Supply | How much IC they produce |
| Equilibrium | Balance between demand and supply |
| Price | Funds needed to obtain one unit: private or public |
| Quantity | Amount of IC sold and purchased in the market |
| Need | Benchmark to the more developed countries |
| Investment | Money spent |
| Stock | Level of IC |
| Flow | International of national migration |
| Return | Impact on meaningful economic variables |

2.1.2.3 Different scientific perspectives of analysing HE investments

With the passage from the 20th to the 21st century, several scientific fields began to look at higher education in a complementary base. Those alternative ways of analysing HE are explained in Table 2 below. We should emphasize that all the perspectives have their own reason to exist, and that the various logics are bound to coexist in academia and in the practical management of HE.

Table 2 – Higher Education investments put in societal perspective

| Perspective | User | Problem | Variables | Assessment Methods |
|------------------------------------|---|--------------------------------------|---|---|
| Social Policy | Public administrator | Public good | Expenses, number of supported persons | Progress reports |
| HR Economics | Human Resource Economist | Impacts on society or organizations. | Wages, employment, productivity, exports. | Control Group Input Output Methods Supply and demand methods |
| Management / Accountability | Private Manager Traditional Accountant | Impact on the organization | Profits | Return for investment |

| | | | | |
|-----------------------------|-------------------|--------------------------------|--|---|
| HRD science | HRD expert | Impact for the agents involved | Competences, learning, behaviour, company outcomes | Interviews, Questionnaire, Participant – Observer |
| Intellectual Capital | New Accountants | Impacts on the organization | Market value minus book value | Balanced Scorecard: Finances, Structural Capital, Social Capital, Human Capital. Market value versus Book value |
| Knowledge Management | Knowledge Manager | Impacts on the organization | Knowledge | Knowledge sharing, transfer, creation, dynamics, learning and unlearning |

2.1.2.4 The role of the State

The participation of the State may be justified as a provider of courses or as a funding source for students, when the private sector does not provide the courses or the funds that are needed and if there is a social need to be met by the investment in higher education (HE). Given that Universities are engines for economic development the presence of the State has been defended as a necessity. Public universities are justified because education is a mixed good, on equity grounds and because of the technologic, regional, social and macroeconomic impact of Universities. However, private universities may result from private initiatives, from companies needs, and may be seen as important competitors or complements to the State owned universities. Public money may be used for running public Universities and also for funding private ones. At the moment these institutions all over the world are facing an era of increasing financial pressures. As Alexander (2000 p. 411) observed: "Governmental authorities are no longer as receptive to the traditional self-regulatory processes that have dominated university development for centuries. Public universities use to be funded by taxes, and marginally by student fees. Recently the idea of loans to be paid in the future working life by the student or educational vouchers have been considered as possibilities. For private universities the alternatives are student fees, public subsidies, or loan to be paid in the future, an "educational voucher", or State grants to be awarded to some students.

2.2 Known Studies

Caffrey and Isaacs produced in 1971 a systematic template to organize the measurement of economic impacts (Siegrfried and al, 2008). The model was based in the definition of the spending by the University community (students, faculty, staff and visitors), and in the definition of a multiplier, who in a Keynesian way would account for the total effect of the University in the local economy (Taylor, 1990). Bluestone (1993) analysed the impact of the graduation in the local expenses, assuming that the graduates earn more and spend more in the region. Other relevant contributions to the university impact literature are the following: Beck, Elliott, Meisel and Wagner (2006), who propose new methodologies, attempt to account for short-run and long-run flows, and give alternative ways of thinking about geographic regions; Brown and Heaney (1997), who discuss the traditional economic-based approach; Blackwell, Cobb and Weinberg (2002), who discuss traditional and human capital impacts, and conduct a case study of Xavier University in Cincinnati.

3. The Case Study

In this section and in section 4 we use data contained in the Statistical Annuary of the Northern Region as published by the National Institute of Statistics in 2008 and related to the year of 2007 (National Institute of Statistics, 2009).

3.1 Population

Vila Nova de Famalicão is located in the Northern Region of Portugal, and in the subregion of the Ave. In 2007 the council of Vila Nova de Famalicão was home to 140.000 persons, with a density of 666 habitants per square km.

3.2 Economic Activity

The Ave Region represents 3.6% of the Portuguese GDP, and the Northern Region which represents 28% of the Portuguese GDP. Almost half of the added value of the Ave Region was obtained from services and the other half from the industry, the agriculture being residual. In the Ave region, the productivity of the labour force was of 18300 euros, which is 80% of the Portuguese average. More than 90% of the companies in the region have less than 10 employees. The dominant sectors of activity are the manufacturing, textile and the trading sectors. The council of Vila Nova de Famalicão has a level of exports which is 30% higher than the level of exports. This fact is surprising in the context of the traditional external deficit of the country.

3.3 Education and income

In the Northern region 70% of the labour force had primary studies, 15% had secondary and another 15% have higher education. However, in the region of Vila Nova de Famalicão the distribution was more skewed to the lower classes.

In 38 000 workers, 28 000 had primary studies, 5 700 had secondary studies, 431 had 3 years of higher education, 2 300 had 5 years of higher education, 133 had Masters degrees and 35 had PhDs. This distribution of educational degrees had profound social and economic implications. The gross monthly wage in Famalicão was of 776 euros. The figures varied vary much according to the level of education 661 euros for primary school, 934 for secondary school; 1 491 for three years higher education; 1 715 for five years of university; 1 546 euros for Masters and 2 611 for PhDs. In the council of Vila Nova de Famalicão the enrolment rate in basic education is 118,9% in the secondary education of 108,7% and in the higher education of 17.7%. The share of "adult" students (meaning students who began University when they were already passed 23 years of age) is of 20%. In Vila Nova de Famalicão two institutions of higher education exist, with 4700 students, and 222 teachers. The students are divided in the following scientific areas: Art (104), Social Sciences (202), Organizational Sciences (326), Informatics (51), Engineering (331), Architecture (634) Health (2 680).

4. Empirical Study: Methodology

4.1. A questionnaire for students

We aimed at making a micro econometric study on the impact of the University in the neighbouring region. We wanted to make a survey to students, and to analyse their income life, in order to obtain an expectation of the returns derived in terms of wages for those students. We aimed to contact the 2800 graduates from UL VNF and to send them an online questionnaire, which would be filled by a considerable amount of those students and sent back to us, anonymously. UL VNF has the technical capability of running such a questionnaire. The questionnaire would include introductory identification questions, a second part on the employment life and a third part on returns for the investment. We hoped that the average data for the wages of the individuals in the various years, when compared with the average wage in Famalicão and the direct costs of the University would give us an indication of the rate of return of UL VNF. Quite unexpectedly however, we were unable to perform the study due to the Portuguese legislation on data confidentiality.

4.2 A questionnaire on organizations

Our second idea was to make a survey on the local organizations that might had employed UL VNF graduates. We know from facts that some local managers seem to have a favourable opinion about UL VNF and so does the Municipality. However, this approach did not seem very scientific to us, and we dropped it.

4.3 The study of the Universities' expenses

Our third move idea was to ask the University bodies for data on the expenses, in order to find some idea about the economic impact of the University. We

estimate that in the academic year of 2009/10 the average month fee for UL VNF students was of 300 Euros, meaning an average annual investment of 3500 Euros, which for 1500 students would mean an investment of around 5 million Euros. Given that the Municipality of Famalicão accounts for 30% of the Ave Region and that the Ave Region GDP was of 5800 million Euros in 2007. Therefore the direct business of UL VNF was of around 0.25% of the GDP of the neighbouring region. But the importance of UL is certainly higher given the multiplier effect.

4.4 An introductory study based on publicly available data

Finally, we obtained the data that are included in the following Table 3.

| | Number of graduates | Number of graduates in Famalicão not self employed | Monthly growth wage in Famalicão for graduates |
|--------------|----------------------------|---|---|
| 1993 | 146 | | |
| 1994 | 123 | | |
| 1995 | 189 | | |
| 1996 | 218 | | |
| 1997 | 204 | | |
| 1998 | 192 | | |
| 1999 | 251 | | |
| 2000 | 266 | | |
| 2001 | 196 | | |
| 2002 | 167 | | |
| 2003 | 164 | | |
| 2004 | 155 | 1745 | 1695 |
| 2005 | 138 | 2209 | 1693 |
| 2006 | 109 | 2284 | 1714 |
| 2007 | 122 | 2592 | 1671 |
| Total | 2650 | | |

We conclude that UL-VNF graduated more than the number of graduates that don't work by their own in the council of Famalicão. We also conclude that if all the graduates work in Famalicão or in the neighbouring region they will generate a gross revenue of 62 million euros ($1671 * 2650 * 14$ months). This is already a considerable value in terms of the Famalicão region, which we consider has a GDP of around 1800 million Euros. Therefore we may conclude that the economic effect of UL VNF in its neighbouring region at the present moment may be estimated as at least 3% of the region's GDP and at the number of graduates that are not self employed in the region. This figure does not reflect the impact of those graduates in the economy. And given that the salary of graduates is around 13% the salary of the work force, the real impact of UL VNF might be considerable higher than 3%.

5. Concluding Comments

5.1 Conclusions

UL VNF's contribution to the neighbouring region may be estimated as at least 3% of the regions GDP and at the number of graduates that are not self employed. Notwithstanding further studies (5.2) this is already an interesting result for a local university. The theoretical, economic and social environment described in sections 2 and 3 give relevance to this finding. UL VNF may well achieve its goal as engine of social change in the future.

5.2 Limitations

As we mentioned in sections 4.1.1 to 4.1.3 we faced many limitations, we believe we will continue the study and improve its conclusion when we will have access to more and better data.

5.3 Suggestions to further research

We plan to overcome the data shortage in the near future and make a study in which we will use two kinds of data and two types of instruments. 1) basic expenses data on the University; 2) an anonymous questionnaire sent to each one of the 2800 graduates of ULVNF. The questionnaire will address: Identification: Career: Economic consequences. This future study will not be based on a one-off questionnaire, since it will be repeated every two years in order to analyse the stability of the data given current economic recession and to identify any longitudinal trends.

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Impact du dispositif VeTIC : pratiques des directions d'école en milieu minoritaire franco-canadien

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Résumé

Depuis les dernières années, la mission des écoles francophones canadiennes a été redéfinie afin de répondre aux besoins la diversité de la société multilingue. En effet, puisque les communautés francophones sont très dispersées, il devient essentiel d'avoir des leaders efficaces dans nos écoles qui encouragent la valorisation culturelle et linguistique. Ainsi, il est légitime de se questionner à savoir si les directions d'école possèdent les outils nécessaires pour assumer ce rôle en milieu francophone minoritaire. Il existe peu ou pas d'outils pour aider les directions d'école à assumer ce rôle important. La ressource hypermédia VeTIC a été créée afin de répondre aux besoins des directions d'école dans la mise en œuvre de pratiques qui promeuvent la construction identitaire et la promotion du français. Dans le cadre de cette recherche, à l'aide d'un questionnaire en ligne, nous allons tenter de déterminer si le système VeTIC répond aux besoins des directions d'école.

Mots clés : Direction d'écoles – Leadership – Réussite scolaire – Vitalisation ethnolinguistique – Technologies.

1. Introduction

Depuis le milieu des années 90, la mission des écoles de langue française au Canada a été redéfinie afin de répondre aux besoins de notre société. La diversité de celle-ci, multilingue et multiculturelle, fait en sorte que l'école de langue française en milieu minoritaire possède des fonctions importantes. Dès le début du 18^e siècle, les francophones ont dû se protéger contre plusieurs menaces du peuple britannique, telles que l'assimilation. Par conséquent, les écoles francophones hors-Québec sont isolées géographiquement dans leur rôle de promotion du français et de construction identitaire. Il devient essentiel d'avoir des leaders scolaires efficaces afin d'encourager non seulement la réussite scolaire des élèves, mais aussi la valorisation culturelle et linguistique du fait français au Canada. L'école de langue française au Canada a un mandat de créer un environnement actualisant où l'élève peut s'épanouir dans sa langue et sa culture de même que favoriser la construction identitaire.

En effet, des pratiques de vitalisation ethnolinguistique permettent de protéger et de promouvoir la langue et la culture francophone dans les écoles. Ainsi, il est légitime de se questionner à savoir si les directions d'école possèdent les outils nécessaires pour assumer ce rôle important en milieu francophone minoritaire.

2. Contexte et problématique

Le français est une des deux langues officielles au Canada. Par ailleurs, elle représente seulement 22,1% de la population totale. Les francophones au Canada sont en minorité linguistique dans toutes les provinces, sauf au Québec. Depuis l'instauration de la loi des langues officielles de 1969, le contexte des francophones au Canada est coloré d'événements marquants. Cette population a dû se battre afin de créer et de protéger leurs droits linguistiques au Canada. Pour bien cerner les éléments à l'étude, il s'avère essentiel de dresser un bref portrait des francophones au Canada.

2.1 Le portrait des francophones au Canada

Les deux langues officielles au Canada sont l'anglais et le français. Selon un recensement effectué par Statistique Canada en 2006, le nombre de francophones qui considère le français comme langue maternelle au Canada est de 6 817 655, ce qui représente 22,1% de la population totale (Statistique Canada, 2006a). Toutefois, 19,1% des francophones demeurent au Québec. Alors, le taux de francophones en milieux minoritaires ne représente que 3% de la population totale, avec une population de 939 995. Ce pourcentage de francophones est dispersé dans un vaste territoire de neuf provinces et de trois territoires. Tel que nous pouvons observer dans le tableau 1, le nombre de francophones diminue.

Tableau 1- Population de langue maternelle française dont le français est la langue parlée le plus souvent à la maison, Canada, 1971 à 2006. Source : Statistique Canada (2006b).

| Années | Population de langue maternelle française | |
|-------------|---|-------------|
| | Nombre | Pourcentage |
| 1971 | 5 792 710 | 26,9 |
| 1981 | 6 177 795 | 25,7 |
| 1991 | 6 562 060 | 24,3 |
| 2001 | 6 782 320 | 22,9 |
| 2006 | 6 892 230 | 22,1 |

Nous pouvons constater que la population de langue maternelle française est en déclin constant. Plusieurs facteurs contribuent à la diminution du taux de francophone au Canada, notamment, le taux d'immigration, l'urbanisation, la mobilité croissante des populations, les médias, la nouvelle ouverture religieuse, etc. (Castonguay, 2008, p.3) Selon Statistique Canada (2006a), « le Canada devient de plus en plus une société multilingue en raison du nombre grandissant d'immigrants n'ayant ni le français ni l'anglais comme langue maternelle ». En effet, la recension de Statistique Canada (2006a) démontre qu'il y a plus de 100 langues maternelles recensées au Canada. L'influence des autres langues ainsi que la langue majoritaire a un impact sur le taux de transfert linguistique chez les francophones. Les mariages hétérogènes ou mixtes entre autres sont en

partie responsables pour le déclin dans le taux de transfert linguistique pour les francophones au Canada.

2.1 L'augmentation du taux d'exogamie au Canada

L'exogamie est un principal facteur dans la diminution du taux de francophones au Canada. Nous pouvons définir l'exogamie comme « l'union ou le mariage entre membres de groupes linguistiques différents » (Gouvernement de l'Ontario, 2004, p.17). Dans le *Tableau 2* nous pouvons observer que le taux de couples exogames francophones hors-Québec ne cesse d'augmenter.

Tableau 2- Pourcentage de couples exogames francophones hors-Québec, 1971-2001. Source : Gouvernement du Canada, 2003, p.20.

| Pourcentage de couples exogames, francophones hors-Québec, 1971-2001 | |
|---|-----|
| 1971 | 27% |
| 1991 | 39% |
| 2001 | 41% |
| 2006 | 43% |

Entre les années 1971 et 2006, le taux de couples exogames a augmenté de 16%. Cette augmentation considérable affecte plus particulièrement les jeunes couples, « ceux qui sont précisément les plus susceptibles d'avoir des enfants en âge scolaire » (Gouvernement, 2003, p.20). Aujourd'hui, un tiers des enfants sont issus de famille dont seulement un des parents est francophone de langue maternelle. Cette situation linguistique pose des problèmes en ce qui a trait à la scolarisation et au transfert linguistique chez les francophones au Canada. L'accroissement du taux d'exogamie au Canada est perçu comme un mouvement négatif. Ce phénomène est considéré « par les analystes comme le cheval de Troie de l'assimilation » (Dalley, 2006, p.86) pour les francophones en milieu minoritaire au Canada. Dans « plusieurs des communautés minoritaires du Canada, l'exogamie a souvent été associée à un taux élevé de transfert linguistique du français à l'anglais » (p.561) L'augmentation du taux d'exogamie au Canada est un facteur dominant dans la diminution de la population des francophones au Canada. Devant les influences de ce phénomène, les établissements scolaires canadiens ont dû s'adapter afin de protéger la langue et la culture francophone hors-Québec des jeunes canadiens.

3. Recension des écrits

Dans cette section, nous abordons les différentes études qui portent sur le rôle de la direction d'écoles ainsi que l'école dans la vitalisation ethno-linguistique en milieu minoritaire. Par la suite, nous élaborons sur les dispositifs pour appuyer les directions dans leur rôle de leader en milieu minoritaire.

3.1. L'école francophone au Canada

En 1982, il n'y avait pas d'école de langue française dans la moitié des provinces hors-Québec au Canada (Gouvernement du Canada, 2008b, p.18). Aujourd'hui, nous avons environ « 150 000 jeunes dans 674 écoles francophones, ainsi qu'un réseau de 19 collèges et universités francophones à l'extérieur du Québec » (Gouvernement du Canada, 2008b, p.18)

Ces dernières ont comme mandat la protection et la promotion de la langue et la culture canadienne-françaises (Gérin-Lajoie, 2006). Pour réaliser cette mission, les écoles francophones ont dû se défendre contre des lois et des règlements imposés par certains regroupements anglophones, tels que le règlement XVII de 1912 en Ontario et la loi Thornton de 1916 au Manitoba. C'est par le biais de l'école que « les francophones ont revendiqué leurs droits et par laquelle ils et elles ont ainsi obtenu des gains importants. » (Gérin-Lajoie, 2006, p.164)

Les écoles de langue française hors-Québec sont considérées, dans la grande majorité des cas, en milieu minoritaire. Landry, Deveau et Allard (2006) et Gérin-Lajoie (2003) mentionnent que le rôle de l'école est essentiel dans la reproduction et le maintien de la langue et de la culture francophones. Les écoles doivent non seulement assurer la réussite académique des élèves, mais elles doivent aussi assurer le maintien de la langue et la culture des francophones. Alors, il devient indispensable d'avoir des leaders compétents et bien outillés afin de répondre aux besoins des élèves dans cette situation diversifiée.

3.2. Le rôle des directions d'écoles

Les directions d'écoles ont plusieurs tâches à accomplir afin d'assurer la réussite scolaire des élèves. Désormais, en milieu minoritaire francophone, leur rôle est davantage complexifié puisqu'elles ont aussi un mandat plus particulier : « en plus d'avoir la responsabilité d'offrir des services éducationnels, elles doivent aussi créer un environnement actualisant au niveau linguistique et culturel dans la langue maternelle » (Traduction libre, Lapointe et al., 2005, p.145). En plus des tâches administratives, les directions d'école ont la responsabilité d'assurer un environnement favorable au développement et à la maîtrise de la langue et la culture francophones en milieu minoritaire (Godin et al., 2004, p.66). En effet, « la mise en place des nouveaux programmes, l'encadrement pédagogique des enseignants ainsi que la responsabilité d'ordre politique et communautaire constituent des tâches additionnelles qui occasionnent des défis de taille. » (Godin et al., 2004, p.66) Les directions d'école ont donc un rôle crucial à jouer pour non seulement favoriser la réussite scolaire des élèves francophones, mais surtout pour les aider au développement de leur construction identitaire afin qu'ils s'épanouissent dans leurs écoles, dans la communauté et deviennent de futurs leaders francophones. Par ailleurs, les directions doivent être bien outillées afin de pouvoir mettre en place des pratiques gagnantes dans l'école. Ce qui nous amène à poser la question suivante : quels sont les dispositifs disponibles pour aider les directions dans le mandat particulier des écoles franco-canadiennes en milieu minoritaire?

3.3. Les dispositifs disponibles pour les directions d'écoles

Nos lectures démontrent qu'il existe plusieurs outils qui visent à appuyer les enseignants dans leur rôle de promotion du français et de la construction identitaire : notamment la ressource en ligne de l'ACELF, le stage de formation de l'organisme *Pédagogie Culturelle* intitulée *Parle PAL, jase, jase!*, les réunions CAP (communautés d'apprentissage professionnelles), Capsule franco, l'organisme FESFO (Fédération de la jeunesse franco-ontarienne), etc. Ces ressources ont été créées afin d'appuyer les enseignants dans leur rôle d'agent culturel dans les activités pédagogiques. Cependant, quels sont les outils pour les directions d'écoles? Nos lectures révèlent qu'il existe trois ressources principales pour les directions d'écoles : la *Politique d'aménagement linguistique* (PAL) du ministère de l'Éducation de l'Ontario (MÉO), la formation et la ressource hypermédia *VELTIC* (IsaBelle, Fournier, Desjardins, et Dalley, 2008) qui peuvent aider les directions d'écoles.

La première ressource est la PAL. Elle demeure une ressource très théorique et ne suggère pas des pistes d'interventions pratiques. Ce recueil identifie l'importance de la promotion du français et de la construction identitaire, mais ne développe pas une mise en application de celle-ci.

Le deuxième dispositif est un stage de formation pour les directions d'école en affirmation culturelle offert par l'ACELF en partenariat avec le FCDÉF (Fédération canadienne des directions d'écoles francophones). Ce stage se déroule pendant l'été et permettent des échanges entre des directions d'écoles. Or, bien que ce stage semble être pertinent à la réalité des directions d'école en milieu minoritaires, peu de directions ont l'occasion de participer aux stages offerts.

Le troisième outil que nous pouvons faire valoir est la ressource hypermédia *veltIC*. Ce dispositif est le résultat d'une étude pancanadienne intitulée : *Pratiques de vitalisation ethnolinguistique pour les directions d'écoles* (IsaBelle, Fournier, Desjardins et Dalley, 2007). Cet outil a été créé par une équipe pancanadienne composée de professeurs-chercheurs de l'Ouest, de l'Est, du Québec et de l'Ontario, afin de répondre aux besoins des directions d'école dans la mise en œuvre de pratiques qui promeuvent la construction identitaire et la promotion du français. Le système *VelTIC* est composé de pratiques de vitalisation ethnolinguistique recensées auprès de plus de 200 directions d'écoles canadiennes, hors-Québec. Ce système informatique est disponible sous forme de site Internet : www.veltic.ca. L'intention du système *veltIC* est de créer un catalogue de pratique de vitalisation ethnolinguistique (IsaBelle et al. 2008). L'utilisateur du système peut faire une recherche pour une pratique par province, par mots-clés, par catégories ou par direction. Or, puisque la ressource a été créée en 2008, elle demeure toujours peu connue par les chercheurs ainsi que les directions d'écoles. Dans le cadre de cette recherche, nous voulons connaître si cet outil répond véritablement aux besoins des directions d'école quant à la mise en place d'un leadership efficace au sein d'une école française en milieu minoritaires francophones.

3.4. But et objectifs de la recherche

Étant donné le rôle de l'école de langue française et de la direction d'école pour assurer la survie, voire l'épanouissement de la langue et la culture francophones, chez les élèves en milieu minoritaire, il s'avère essentiel de connaître si le dispositif VeLTIC contribue aux directions d'école à mettre en place des pratiques de vitalisation ethnolinguistique au sein de l'école de langue française. Le but de la présente recherche est de décrire la perception des directions d'écoles et les futures directions d'écoles sur la ressource VeLTIC par rapport à la mise en place de pratiques de vitalisation ethnolinguistique dans une école en milieu minoritaire franco-canadien.

4. Cadre conceptuel: Le modèle hypothétique de leadership éducationnel en milieux minoritaires francophones (Lapointe, 2002)

Dans ce chapitre, nous expliquerons d'abord le cadre conceptuel sur lequel nous allons baser notre recherche. Au courant des décennies, le concept de leadership éducationnel a largement évolué. Par ailleurs, le leadership en milieu minoritaire est encore peu développé. Un modèle qui représente les particularités du leadership en milieux minoritaires est: le modèle adapté de leadership éducationnel en milieux linguistiques minoritaires de Lapointe (2002). Notre recherche se base sur ce modèle. Dans la présente section, nous allons expliquer comment ce concept est pertinent à la recherche en question.

Le premier modèle que nous allons considérer est le modèle hypothétique de leadership éducationnel en milieux linguistiques minoritaires de Lapointe (2002, 2007). Ce modèle a été conçu à partir d'une recension des écrits exhaustive de la part de Lapointe (2002). Ce modèle est en forme de pyramide à cinq niveaux : le leadership de compétence, le leadership d'autoempowerment, le leadership participatif, le leadership transformationnel, le leadership moral (voir figure 1).

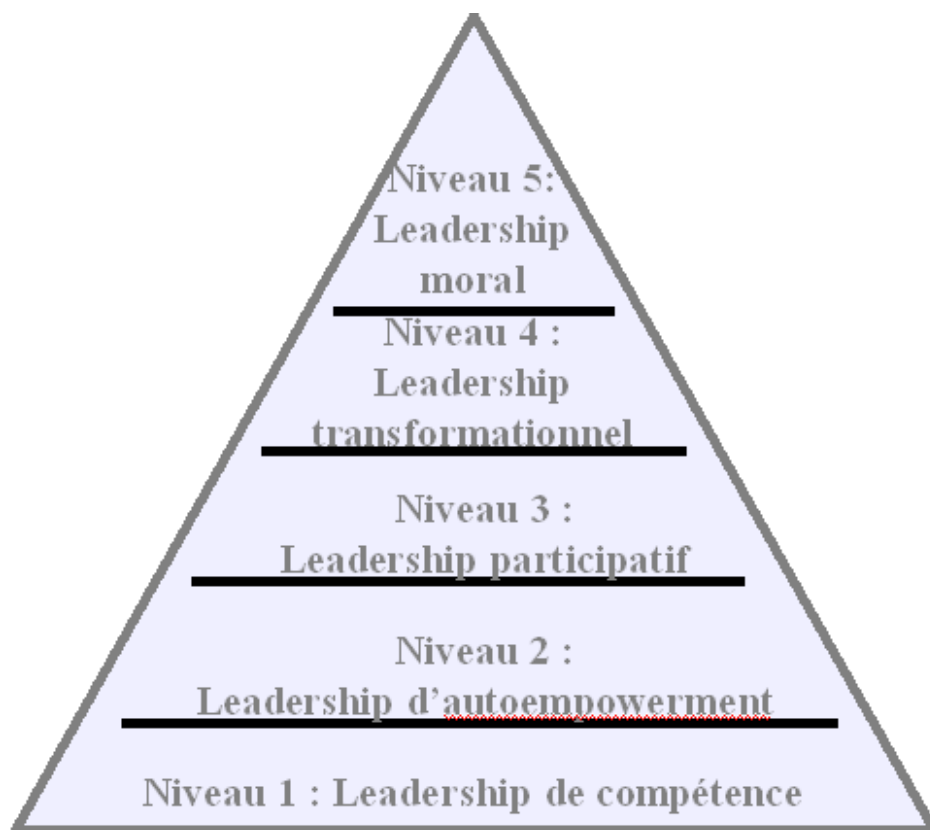


Figure 1. Le modèle adapté de leadership éducationnel en milieux linguistiques minoritaires de Lapointe (2002).

La première étape du modèle de Lapointe est le leadership de compétence. En effet, la direction d'écoles doit avoir une profonde compréhension des enjeux et du contexte avant de pouvoir mettre en place un leadership efficace. Plus particulièrement, la direction d'écoles doit être compétente en ce qui a trait aux enjeux reliés au contexte, par exemple, une compréhension du contexte historique de la lutte des Franco-ontariens.

Une fois que la direction d'écoles possède une compréhension profonde des enjeux, elle devient en mesure de partager ses connaissances avec son équipe et de les convaincre de la mission de l'école de langue française. C'est alors par le biais d'une maîtrise de ses émotions que le leader peut exercer un leadership d'autoempowerment par rapport aux subordonnées (Lapointe, 2002). Un exemple de cette étape est qu'une direction d'école doit être convaincue de la mission de l'école de langue française en milieu minoritaire.

Suite aux styles de leadership de compétence et d'autoempowerment, il est question du leadership participatif. Cependant, Lapointe (2007) remet en question le leadership participatif ; elle suggère plutôt de passer directement au leadership transformationnel. Par le biais des émotions, le leader peut encourager et interpeller ses subordonnées à s'engager davantage à la tâche. Alors, c'est par le biais de l'établissement d'un climat actualisant que la direction d'écoles peut encourager les élèves à mieux s'investir dans leur apprentissage et par conséquent améliorer la réussite de ceux-ci.

La dernière étape du modèle de Lapointe, soit le leadership moral, « favorise le savoir-vivre, ensemble à l'école, puisque le leadership moral est enraciné dans la critique de l'intolérance et la promotion des valeurs universelles » (Lapointe, 2002, p. 44). Cette étape permet aux directions d'écoles de prendre en considération les aspects éthiques d'une situation donnée. Toutes les étapes sont essentielles dans la mise en place d'un leadership efficace en milieu minoritaire francophone. La direction d'écoles met en pratique ces compétences afin de s'assurer la réussite de la construction identitaire chez les élèves. Ce modèle est essentiel à notre recherche, puisque nous voulons vérifier si, le système hypermédia VELTIC permet aux directions d'école d'atteindre les deux premiers niveaux du modèle de leadership en milieu minoritaire de Lapointe.

Au clair, c'est donc en fonction des deux premières étapes du modèle de leadership éducationnel en milieux minoritaires que nous allons baser les prochaines étapes de notre recherche. Grâce au cadre conceptuel, nous avons maintenant une matrice dans laquelle s'inscrit notre recherche. Ce modèle nous permettra de mieux guider les prochaines étapes de la recherche.

5. Méthodologie

Cette recherche nous permettra de connaître la perception des directions et des futures directions d'écoles quant à l'outil VelTIC. À la lumière du modèle d'adaptation du leadership éducationnel en milieu minoritaire, nous avons effectué un sondage qui met en évidence les points forts et les points faibles de l'outil VelTIC. Ces résultats nous permettront de mieux connaître les besoins des directions d'écoles en milieux minoritaires francophones.

Les participants sont des directions d'écoles ou des futures directions d'écoles inscrits dans le cours de leadership en éducation de l'Université d'Ottawa. Les participants proviennent de différentes régions puisque le cours est offert en ligne ainsi qu'en présentiel. Les étudiants ont des années d'expériences et de postes variés ce qui permettra une diversité dans nos répondants. L'âge des participants varie de 23 à 60 ans. Ce questionnaire sera dans le cadre du cours de changement social offert pendant la session d'hiver 2010 dans le programme de maîtrise en éducation à l'Université d'Ottawa.

L'instrument que nous avons utilisé est le sondage. L'échelle que nous allons nous baser pour faire l'analyse des données recueillies est l'échelle ordinale. Nous allons nous baser sur la forme de Likert afin d'effectuer les choix de réponses pour les participants. Les participants doivent évaluer selon l'échelle de 1-5 la pertinence de chacun des énoncés présentés. En ce qui a trait au contenu, nous voulons connaître la perception des leaders éducationnels en ce qui concerne l'outil VelTIC quant à la mise en place de pratiques qui promeuvent la promotion du français et la construction identitaire. Par la suite, nous voulons aussi déterminer si l'outil hypermédia VelTIC contribue à l'implantation de pratiques de vitalisation ethno-linguistique. Voici, de façon générale, la distribution des sections du questionnaire :

- Partie I L'identification des participants
- Partie II Le rôle de la direction d'écoles
- Partie II L'utilisation de l'outil VeTIC
- Partie IV Mon utilisation de VeTIC

La première partie a pour but d'identifier chacun des participants. Ces éléments nous permettront de mieux décrire nos participants. La deuxième section traite de la question de la perception quant au rôle d'une direction d'écoles. Cette partie permet d'identifier leur opinion en ce qui a trait à la fonction de la direction d'école en ce qui a trait à la promotion du français et à la construction identitaire. La troisième partie fait appel à l'utilité de l'outil VeTIC afin de connaître l'utilité de chacune des catégories des pratiques. Dans cette section, nous voulons aussi identifier si VeTIC permet de développer certaines compétences; telles que développer une meilleure compréhension du fait français multiculturel ou mettre en pratique des nouvelles pratiques. Tandis que la dernière section, mon utilisation de VeTIC, permet aux répondants de démontrer leur perception en ce qui concerne l'utilité, dans leur propres écoles ou futures écoles, des pratiques recensées dans VeTIC. Les étudiants avaient deux semaines afin de compléter le questionnaire en ligne.

La prochaine étape, qui s'effectuera bientôt, s'agit de l'analyse des données. Cette analyse nous permettra de mieux comprendre la situation actuelle des directions d'écoles en milieu minoritaire francophone. Nous allons effectuer une analyse comparative entre les questions et les sections utilisées dans le questionnaire en ligne. Les données recueillies sont de nature quantitative et seront calculées à l'aide de pourcentages et de médiane. Par le biais des tableaux et des graphiques, nous pourrions mieux comprendre les perceptions des participants en ce qui a trait aux sujets énumérés.

6. Conclusion

Les directions d'écoles jouent un rôle essentiel dans la réussite scolaire des élèves : en ce qui a trait à la réussite académique et la construction identitaire. Nous avons déterminé qu'il existe peu ou pas d'outils pour les directions d'écoles afin de leurs aider dans cette tâche importante. Dans cet article, nous avons dressé un portrait du profil des francophones au Canada ainsi que le rôle joué par les leaders éducationnels. Nous avons aussi établi le cadre conceptuel dans lequel s'inscrit cette recherche. La prochaine étape de cette recherche est l'analyse des données recueillies. Nous estimons que ces résultats nous permettront de déterminer si le système VeTIC répond véritablement aux besoins des directions d'école quant à leur rôle de promotion du français et de construction identitaire dans les écoles minoritaires francophones. En déterminant l'utilité du dispositif, nous pourrions mieux répondre aux besoins des directions d'écoles. Bref, les résultats de cette collecte de données nous permettront de mieux cibler les besoins des directions afin de mieux outiller et répondre aux besoins de celles-ci en milieux minoritaires francophones. Par

conséquent, nous pourrions favoriser la construction identitaire et la rétention des élèves qui fréquentent l'école de langue française.

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The Verb Train: Teaching Ancient Greek Verbs at Secondary School Level via Interactive Multimedia

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Abstract

This paper presents the technical and computer environment features, and the pedagogical considerations for teaching Ancient Greek verbs through the Verb Train software. It includes proposals for using it in the classroom along with a specified methodology, explained in worksheets that accompany every teaching unit. The presentation also includes a bibliography of sources documenting the pedagogical value of the software. More specifically, Verb Train is educational software that facilitates teaching and learning the conjugation of Ancient Greek verbs at the secondary school level. The rationale stems from the need to codify verb conjugations in alternative ways and is based on contemporary teaching methods that can be used in the classroom and as home study. The structure and organization of the curriculum is based on three functions: LEARN & GRASP, PRACTISE & APPLY 1, and PRACTISE & APPLY 2. The program is accompanied by a CD-ROM Teacher's Handbook, which contains teaching tips and instructions, an extensive bibliography and worksheets with educational activities that cover the whole range of the curriculum, along with three Student's Books. The results showed a significant difference in the performance of students using the software in order to understand and learn items of a dead, classic language compared to those who didn't belong to a technology-oriented classroom.

Keywords: Ancient Greek – grammar – secondary school education.

1. Introduction

In contemporary teaching, the traditional model of learning based on the Education-Educator-Learner approach is gradually being abandoned in favour of more flexible pedagogical practices that are personalized and open to a wide range of innovations. The concept of the daily classroom lesson is undoubtedly being gradually replaced by educational activities based on new methods and practices such as the application of new technologies.

The singularity of audiovisual media is taking on great significance as a means of expression, thus acquiring more cultural and social value than technological. It is precisely this aspect that has prompted us to use computer technology for teaching and learning in one of the most traditional fields of study, i.e. Ancient Greek. Our experience as educators has shown that using computers in the classroom lends a different tone to the communicative activity.

More specifically, Verb Train deals with the specialized field of teaching Ancient Greek verbs. The rationale of this particular software stems from the need to

codify verb conjugations in alternative ways so that the outlined pedagogical aims can be served. Information was drawn from the work of Bergeron (1990) in order to construct a learning environment based on the following principles: definition of the object of study; structuring of the activities and the related material; unification; creation of models; and, of course, the potential of experimentation. The locomotive engine and freight cars (see Fig. 2) are the kits to be assembled (Bertrand 1999), which provide the final data that will be constructive in the overall learning experience. Using the simple device of successive projections of the verb development stages, the data is gradually conveyed.

2. Verb Train: software presentation

2.1 Computer environment technical features

Minimum system requirements

Operating system: Windows 98, NT, Me, 2000, XP, Vista
 Processor: Pentium III 500Mhz
 RAM Memory: 32 MB
 Graphics card: 800x600 screen resolution
 Sound card: SoundBlaster 16bit or compatible
 CD-ROM: 4x

Recommended System Requirements

Operating system: 2000, XP, Vista
 Processor: Pentium III 800Mhz
 RAM Memory: 256MB
 Graphics card: 800x600 screen resolution
 Sound card: SoundBlaster 16bit
 CD-ROM: 32xlease use no more than three headings levels.

2.2. Introduction to the software

On the home page of the program, Sophocles the Parrot makes his appearance. He is the wise helper who guides the user through the program. Three (3) main options will appear that will admit the learners to their corresponding class: the 1st, 2nd or 3rd year of secondary school. By clicking on any of these button/portals, the users are taken to the screen with the entries to the train station, which correspond to the teaching units, according to the grammar curriculum for each class.

On this screen, the user can see six (6) options, which are activated by pointing the mouse to the icons of the corresponding students. In this way, the user can choose the Voice of the verb in combination with the level of the task (learning or practice) and move to the corresponding platform. By selecting Active Voice, for example, at the PRACTISE & APPLY 1 level, the user moves to the central platform, where he/she has access to various categories of verbs (e.g. ones with vowel stems or dental stems). Here the user can click on one of the available

categories on the wall of the corresponding platform, such as verbs with vowel stems or consonant (velar, labial or dental) stems. Following this route, the user ends up at the final station. He/she selects the verb of choice from the platform. Then, the user will see the six (or fewer) train engineer buttons (Fig. 1), by which to choose the mood, infinitive or participle. The user selects the verb, then the engineer (mood), at which point the train arrives, and finally he/she selects the tense of the verb he/she wants to conjugate to start loading the train. There are additional buttons in the form of train parts (e.g. foglights, headlights and hooks) which correspond to suffixes, augments, reduplications, verb stem endings and infixes, helping the user to form the various verbs.

When the user selects a verb and tense in the LEARN & GRASP function, then the verb is automatically 'loaded' onto the train car and a voice is heard reading out the verb. In the PRACTISE & APPLY function, the difference is that the user must construct the verb form. The verb is conjugated as the user loads and unloads the proper affixes by clicking on the auxiliary buttons. The cars are loaded by dragging and dropping the correct parts in the correct car. When the user clicks on the "Information" button, Sophocles the Parrot appears on the screen and gives instructions and information about the auxiliary buttons.

In the event that the user makes two wrong selections, the rules for forming the particular Ancient Greek verb automatically appear. The number of correct or incorrect selections appears on the porter and the engine worker. The user also has access to the corresponding grammar rule at any time by clicking on the "Paper & Pencil" button. Each year level is differentiated on screen by means of the graphics for the station, the types of trains and the colours.

The following tool/buttons are on every screen of the program:

- "Information", which calls up the parrot with the corresponding instruction;
- "Back", which allows the user to return to the previous screen;
- "Exit", which allows the user to exit the program;
- "Eraser", which allows the user to delete mistakes in the PRACTISE & APPLY function;
- "Print";
- "Save";
- "Connect to the Internet";
- "Paper & Pencil", which calls up the grammar rules corresponding to the conjugation of the specific verb;
- "Volume";
- "Analyse", which activates the grammatical analysis of a verb. The user may key in a verb using the polytonic system of orthography, and the verb is automatically analysed as to its voice, mood, tense, number and person, loading it onto the corresponding cars of the train.

3. Pedagogical principles

The learner of Ancient Greek grammar initially has to deal with a range of mental functions that must be acquired in order to grasp the conjugations of verbs.

- The learner is called upon to memorize a large number of affixes corresponding to moods, tenses and noun verbs (infinitives and participles) and apply the corresponding rule in order to form them correctly;
- Apart from memorization, the learner must also have a firm command of the rules of spelling and of the diacritics (accents and breathings) used in the polytonic orthography system;
- At the practice stage, the learner must instantly recall a range of information that he or she must codify in order to give the correct answer.

This software was designed to help learners learn to conjugate Ancient Greek verbs and facilitate the above-mentioned mental functions. This is an interactive teaching method that compares the conjugation of verbs to loading the cars of a train. At the train station, the user is called upon to select the software functions that correspond either to learning verb conjugations or to applying the knowledge he or she has gained. There are two levels of difficulty: A and B.

The software obviously makes use of the train and cargo metaphor to achieve the visualization of the mental functions that the human brain must carry out in order to form the verb. At the same time, in a single screen it presents all the knowledge needed to complete the complex task of finding the verb form, so that the learner can become familiar with it. The verb database is particularly broad, containing all the regular verbs found in Attic prose.

The software can be used by the teacher as an aid in the classroom and/or as self-access by the learner using the LEARN & GRASP and PRACTISE & APPLY functions. This interactive teaching method, based on the train metaphor, is capable of explaining the formation of the verb in terms of voice, mood, tense, number and person. Though the focus is on the learner in terms of choosing, loading and unloading the affixes, the teacher's role is definitive in coordinating and guiding the learners.

3.1 Learn & Grasp function

The message received by the user/learner at this phase is one-way and provides a specific and limited piece of information (the conjugation mode), aiming at developing powers of observation and pinpointing important information. Koroneou (2002) explains how using such messages in the educational process serves specific learning aims and the precise knowledge of the object of study. Apart from the graphic representation of the verb conjugation during this phase, the user can also hear the verb being read out, since, according to R. Barthes' semiological observations (1964) on the functions of language in relation to images, the combination of oral speech and written text lend meaning to time and space, and fill in the information gaps.

3.2 Practice & Apply 1 and 2 function

This screen relays information with multiple meanings to the user, which aim at piquing his or her interest and imagination. The information unfolds gradually (first the engine car with the verb stem, then the empty cars that are to be loaded). Canadian communications theorist Marshall McLuhan explains that each image invites the viewer to give meaning to it, as if it is saying 'fill me in'. The main aim is for the learner to assimilate the input. Regarding the strength of these messages, Koroneou explains that they cultivate creativity, personal research and participation in the building of knowledge.

We have made an effort to limit the multiple messages conveyed in the image for pedagogical reasons. We employed the technique of a montage of successive screens and a combination of the different elements in the development of the verb conjugation, since every screen/image acquires meaning based on the previous and following screen/image.

The sounds used in the program are limited so that the learner is not distracted, especially in the computer lab. Yet the complete absence of music and sounds would be dissatisfying and would impede the comprehension of the message. There are analogue sounds that are a direct reference to the real world (the hubbub of the train station and music heard on the platforms). The sounds allow for a greater dramatic effect, and activate and sensitize the learners' unconscious, encouraging them to identify with the role of the porter or traveler. The music substantially contributes to creating a unique atmosphere and the silence that follows is of particular significance because it prepares the learners to move into the activity stage. Emphasis has been placed on the sound of the train starting off because it functions as a reward. It essentially promotes an action and is a tool that facilitates the comprehension of the message, because it signals to the learner that he or she has successfully conjugated the verb.

The cars are the sign in semiotic terms; they are a strictly codified form of communication. For example, the users understand that the empty cars must be filled in (or loaded) with affixes in order for their train to be able to start off. There are two main aims:

- the information should be clear and brief;
- the visuals should be legible, that is, they should present the highest degree of imagery and representation (Koroneou 2002, p. 48).

The introduction of this software as a teaching aid in the classroom aims at altering the structure of the lesson. The learning process can develop as Karakiza (1999) illustrates so that:

A. The learners do not focus on the teacher, but on the computer screen in groups. The teacher only guides.

B. Low-achieving learners develop a much higher level of communicative interaction with the teacher and their classmates, thus finding opportunities for a more substantial and equal standing in the classroom.

C. The learners do not focus as a class on the teacher, but work in small groups focusing on the computer screen. In this way a localized form of communication is developed.

D. There is shift in the teacher's role from the source of all information to the guide or facilitator.

In addition, the computer screen presents the information in a better structured way, easier to comprehend than the blackboard or a worksheet, and provides the learners with the means of reviewing the information as many times as they need. The multi-sensory organization of the verb conjugations through the train model also offers something of vital importance to dyslexic learners: the combination of movement and sound (Bradley 1981). This method creates conditions for a "visual overview" (Stasinou 2001), where the learners have the opportunity to do the following: a) look at the words; b) repeat the words; c) check their knowledge. One of the main advantages of the program is the indirect and impersonal correction of errors (when the cars have not been correctly loaded), remedying the problem of direct teacher correction, which can often be negatively interpreted by the learner. In any case, the new electronic learning environment presupposes that the teacher is prepared to contribute to the new teacher/learner interaction in a way that will make it productive.

4. Teaching uses

This software is used by the teacher as a classroom aid and by the learner as self-access, using the LEARN & GRASP and PRACTISE & APPLY (levels 1 & 2) functions. As mentioned above, this is an interactive teaching method based on the train metaphor to explain the formation of the verb in terms of voice, mood, tense, number and person. Although the learners play the pivotal role in the classroom in selecting, loading and unloading affixes, the teacher's role is definitive in coordinating and guiding them. Pregent (1992) describes the role of the teacher as the engineer of knowledge, who coordinates and evaluates the learners' efforts and the paths they must follow to achieve their aims. The software aids the teacher in exploring and explaining an aspect of grammar by helping the learner comprehend and assimilate new concepts. It essentially prepares the feedback activities that will help learners grasp what they haven't understood thus far.

As the software provides access to learning grammar through visualization (the train) in combination with sound (the reading out of the conjugated verb) in addition to the traditional deductive presentation of knowledge (the grammar rule which appears in a pop-up screen), using the program in the classroom can go beyond the boundaries of the mechanical teaching of Ancient Greek. The learners have the opportunity to work together in the lab, to make use of the numerous pieces of data from the verb platform so that, on their own, they can inductively observe, discover and express the rule applying to the aspect of

grammar they are studying. Moreover, the function of analyzing verb forms as to voice, mood, tense etc, is available by clicking on the platform icons, aiding the adequate comprehension of a grammatical form and its etymological relation to Modern Greek, thus helping to improve the translation of the verb in an Ancient Greek text. In this way, the teaching of grammar acquires meaning and purpose, for when it is taught in isolation, it can often become boring for the students and detrimental to the Ancient Greek lesson in Greek secondary schools.

Finally, the teacher can collect the results of the learners' project work either printed out or via email. The above-mentioned educational potential of this software is presented in an organized manner and the learning process is aided by supplementary specially designed worksheets that cover the curriculum in terms of the teaching of Ancient Greek verbs. These worksheets are included in the CD-ROM Student's Book and Teacher's Handbook.

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The Analysis of the Leadership Practices of School Principals

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Abstract

School principals have one of the most important roles for the effectiveness of the schools. The school principals should not insist on maintaining the status quo because today it is hard to keep up with the up-to-date information. School principals should be not only the legal managers but also a leader of the schools. So, Leadership practice of the school principals is analyzed according to the general survey model in this research. The population of the research consists of teachers and school principals working in Konya/Turkey.

Keywords

Leadership Practices - School Principals - Teachers

1. Introduction

Nowadays, roles of the schools differ from the previous years because today's schools have more complex internal and external conditions. Schools were thought to be an information center at the beginning of the 20th century but recently, this belief has vanished. People don't accept all the implementations unquestioningly. Concordantly, educational activities implemented at schools are more confronted with the criticism of their stakeholders. So school principals should be qualified enough to fulfill the expectation of the stakeholders from the schools.

Schools have forever been vessels for their constituents' dreams. Parents, students, taxpayers, educational reformers, and politicians want their schools to be better, different. Schools are populated with caring, committed educators, people who in most instances hold dearly their obligation to respond to the dreams and concerns of community members. Indeed, as vehicles for enlightenment and social and economic mobility, schools were invented to carry dreams for families, individuals, and society (Donaldson, 2006, p. 13). In respect to the perceived leadership approach, survey results indicated that the majority of low achievement schools, at least, were functioning as traditional hierarchical organizations. Fewer than 70% of teachers in the low achievement schools perceived the principal as democratic, participatory, or inclusive. In contrast, in a previous study of in high achievement schools in another district that had been recognized as an innovative school (Sheppard & Brown, 2000), 100% of the staff saw the principal as a key source of leadership, and over 90% saw her/him as democratic, participatory, or inclusive (Sheppard, Brown & Dibbon, 2009).

The schools which are executing so many important functions in society need effective leaders. School leaders are surrounded by messages about the needs of their school. Not infrequently, the needs of students and staff are eclipsed by the more public issues of safety, accountability, and funding; by demands from the district; or even by a balky physical plant (McKeever, 2003). According to Donaldson (2006) school leadership; mobilizes people to adapt their practices and beliefs so that every child's learning and growths are optimized.

The person who brings all the parts of the system into action in a school is primarily the school principal. Leadership skills of the school principals are vital for the schools. So, aim of this research is determined as an analysis of school principals' leadership practices according to teachers' perception

2. Data collection tools

2.1. "Fulfillment level of the roles expected from the primary school principals" scale.

In this research, "Fulfillment level of the roles expected from the primary school principals" scale which was developed by Yavuz (2006) is used.

Scale is composed of 86 items. It has implemented to 500 teachers working in Konya during 2009-2010 educational year. Scale examining the fulfillment level of primary school principals is designed as "highly sufficient" (+5), "sufficient" (+4), "reasonably sufficient" (+3), "insufficient" (+2), and "highly insufficient" (+1). The lowest point of the scale is 86 and the highest one is 430.

2.2. Data Analysis

By using SPSS 17.0, arithmetic average and standard deviation tests are performed for the data analysis. Bench mark below is used for calculating the score intervals of the scales:

$$\frac{\text{Highest Point} - \text{Lowest Point}}{\text{Number of the group}}$$

Interval coefficient for this research is determined as:

$$a = \frac{5-1}{5}$$

$$=0,80$$

3. Findings and interpretation

Table 1: Leadership characteristics fulfilled in high level by principals.

| Leadership characteristics | N | \bar{X} | S |
|---|-----|-----------|-----|
| He/She shouldn't behave improper to public moral and legislations even if his/her superiors want it. | 500 | 4,32 | ,87 |
| He/she shouldn't behave in a manner unfavorable for social values and legislations and improper in terms of public decency. | 500 | 4,24 | ,93 |
| He/she shouldn't behave in a manner not including the legislations and educational concept during enrolment and assessment of the students. | 500 | 4,02 | ,87 |
| He/she shouldn't be in a manner discriminating the students or the teachers according to their demographical differences such as gender and hometown. | 500 | 4,01 | ,95 |
| He/she should be reached when needed. | 500 | 3,79 | ,95 |
| He/she should pay obeisance to the teachers or other staff who are members of a different syndicate or association from his/hers. | 500 | 3,76 | ,94 |

According to the results of the analysis, it can be said that the leadership characteristics which can be collected under the title "ethical principles" have been broadly performed in high level in proportion to the others by school principals.

Results of this research show parallelism with the results of a research carried out by Helvacı (2010). In these premises, it can be made out that school principals' leadership practices are suitable for ethics and legislations.

Table 2 : Leadership characteristics fulfilled in low level by principals.

| Leadership characteristics | N | \bar{X} | S |
|--|-----|-----------|------|
| He/she should provide the necessary circumstances for teachers, other staff and himself to be in constant development. | 500 | 3,16 | 1,00 |
| He/she should redesign the school as an information center and support the dissemination of the information. | 500 | 3,12 | ,99 |
| He/she should prepare the environment which supports leadership characteristics of the students. | 500 | 3,11 | 1,01 |
| He/she should follow the grad students' academic successes in secondary schools. | 500 | 3,09 | 1,02 |
| He should contribute to development of national education policy | 500 | 2,75 | 1,06 |

According to the results of this research, it can be said that school principals who consider ethics more important than the others, are insufficient in terms of the

level that they perform the roles of educational leadership. Furthermore, it can be understood that school principals have low level sufficiency in transforming their schools into a learning organization. The existence reason of the schools is based on the need for education. So, the most important duty of a principal is also educational leadership. It can be thought that a school principal who doesn't function as an educational leadership doesn't do his/her the most important duties. This situation can cause the problem that schools don't fulfill even their basic functions.

4. Results and Suggestions

It can be said that school principals are sufficient in performing the ethics but they are insufficient in the point of direct education. So, educational leadership roles of the school principals should be more emphasized. In-service educations about educational leadership and relations between school and environment can be given to the school principals. Besides it is thought to be beneficial that school principals found non-governmental organizations so that they can be supportive to the national education policies. They can be provided to be supportive to the national education policies via these non-governmental organizations.

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Teacher and Administrator Opinions on Elementary School Principals' Behaviours to Motivate Classroom Teachers and Realization Levels of These Behaviours

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Abstract

The border of the research is constituted by the administrator and the teachers from the central districts of Konya. The sample of the research is constituted by the randomly selected administrator and the teachers working in these schools by the education term of 2007-2008. Survey model is used in the research. In order to learn the opinions of administrator and teachers the data were collected with "Motivation Methods Scale" developed by Sağlam (2002). According to the result of this research, the administrators agree with teachers that organizational and administrative motivation methods are most utilized methods by administrators and these methods are also the highest motivation methods for teachers both administrators and teachers have acknowledged that psycho-social and economic motivation methods' the uses of frequency are low.

Keywords: Teacher - motivation - administrator

1. Introduction

Each administrator has to pay attention to the issue of motivation, since a administrator's success depends on whether his/her subordinates work towards organizational goals and whether they dedicate their knowledge, skills and powers to these goals (Güney, 2000). Motivation can be considered to be a kind of driving force. Therefore, in order to motivate people, it is necessary to know the factors that motivate them and meet their needs (Ertekin, 1978). Each person might have various desires and expectations, thus, the number of motives might be different and it might increase and decrease depending on whether they are satisfied or not (Eren, 2000).

A worker is not able to expend his skills to all of the required areas of his/her work, no matter how high his competence in his work. For this, there should exist internal or external motivating effects (Başaran, 1982). One of the most important tasks of the administrator is to motivate the worker by making him perceive the organizational goals as if they are his own.

Motives might be explicit or implicit. It should not be forgotten that a motive or a chain of motives lies beneath a behaviour, no matter how and where it is done

(Cüceloğlu, 1999). In other words, the process of motivation can also be characterized as achieving the standards of excellence (Cohen, 1986).

A motive includes forces that provide the behaviour with energy and direction. These forces stem from basic needs. Motivation is the process of directing these forces towards various goals around the individual (Bursalioglu, 2000). The process of motivation is the process of going into action with the effect of a motive. It is the individual's orientation towards a goal and going into action (Kutaniş, 2003).

A administrator should use appropriate ways of motivation by examining individual and environmental factors, in order to enable the worker to achieve the goals. Individual factors are the factors related to; the worker's cognitive, physical and emotional strengths; his competence in his task; his attitudes towards the organization, his job and his task; and his relations with his superordinates, subordinates and other workers (Ntoumanis and Blaymires, 2003).

According to Maslow's hierarchy of needs, human needs are ranged from simple to complex. These are (Whitaker, et al, 2000): 1) Physiological needs; basic needs such as eating, drinking, sleeping and oxygen. 2) Need for safety; includes physical safety, avoidance of anxiety, work and financial safety. 3) Social needs; need to receive acceptance, need for friends and need for belonging to a group. 4) Need for esteem; need to have self-respect and need to be recognized and accepted by others. 5) Need for self-actualization; is the desire for autonomy and creativity, and the desire to use one's own potential at the maximum level.

People participate in an organization not to satisfy the needs of the organization but to satisfy their own needs. People fulfil their duties and contribute to the realization of organizational goals as long as these needs are satisfied. The goals of education can only be achieved through motivated managers and teachers. A skillful principal needs to take Maslow's hierarchy of needs into consideration, on the equilibrium between opportunities and interactions, in order to satisfy teachers' higher-level needs (Williams, 1978).

It is of high importance to enable teachers to work ambitiously by embracing the goals of education for the improvement of the educational system. Teaching is a difficult job that requires effort and devotion. A good operation of the educational system is only possible with teachers who love and enjoy their jobs and are willing to improve themselves. Therefore, motivating teachers at least through psychosocial, organizational and administrative methods is an important issue (Pehlivan, 2000:64).

The aim of this study is to determine, through administrator and teacher opinions, the frequency of the methods used by public elementary school administrators in Konya to motivate classroom teachers in their schools, and to determine to what degrees these methods motivate classroom teachers. To this end, answers to the following questions were sought:

1. What are the principal and teacher opinions on the frequency of psychosocial, organizational-administrative and material motivation methods used by elementary school administrators to motivate classroom teachers?

2. What are the administrator and teacher opinions on the effectiveness of psychosocial, organizational-administrative and material motivation methods used by elementary school administrators to motivate classroom teachers?

2. Method

The general scanning model was used in this research. The universe of this research consists of administrators (356) and classroom teachers (2551) working in the central districts of Konya in 2007–2008 academic year. The sample, on the other hand, consists of 184 administrators and 345 teachers. It is thought that the sample can be represented at a 0.05 significance and 5% tolerance level (Balci, 2004: 95).

The "Motivation Methods Scale" developed by Sağlam (2002) was used in the research as the data collection tool. Factors' reliability coefficients vary between 0.72 and 0.89. This is considered to be reliable (Özdamar, 1999). In the analysis of the data, descriptive statistics such as percentage (%), frequency (f), arithmetic mean (\bar{x}) and standard deviation (SD) were used.

3. Findings and interpretation

3.1. Frequency of Use of Psychosocial Motivation Methods

As Table 1 demonstrates administrator and teacher opinions on the frequency of use of psychosocial motivation methods are as follows: "Never" (39.21%), "Rarely" (13.80%), "Often" (19.81%), "Usually" (16.58%) "Always" (10.61%).

Table 1. Administrator and Teacher Opinions on the Frequency of Use of Psychosocial Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | f | % | f | % | f | % | f | % | f | % | f | % | | |
| 1 | 73 | 13.8 | 122 | 23.1 | 243 | 45.9 | 69 | 13.0 | 22 | 4.2 | 529 | 100 | 2.70 | 0.99 |
| 2 | 34 | 6.4 | 64 | 12.1 | 121 | 22.9 | 209 | 39.5 | 101 | 19.1 | 529 | 100 | 3.52 | 1.12 |
| 3 | 405 | 76.6 | 44 | 8.3 | 51 | 9.6 | 17 | 3.2 | 12 | 2.3 | 529 | 100 | 1.46 | 0.95 |
| 4 | 349 | 66.0 | 66 | 12.5 | 65 | 12.3 | 32 | 6.0 | 17 | 3.2 | 529 | 100 | 1.68 | 1.10 |
| 5 | 378 | 71.5 | 58 | 11.0 | 61 | 11.5 | 22 | 4.2 | 10 | 1.9 | 529 | 100 | 1.54 | 0.97 |
| 6 | 167 | 31.6 | 99 | 18.7 | 109 | 20.6 | 64 | 12.1 | 90 | 17.0 | 529 | 100 | 2.64 | 1.45 |
| 7 | 218 | 41.2 | 61 | 11.5 | 74 | 14.0 | 84 | 15.9 | 92 | 17.4 | 529 | 100 | 2.56 | 1.56 |
| 8 | 35 | 6.6 | 70 | 13.2 | 114 | 21.6 | 205 | 38.8 | 105 | 19.8 | 529 | 100 | 3.51 | 1.14 |
| Tot | 165 | 39.2 | 584 | 13.8 | 838 | 19.8 | 702 | 16.5 | 449 | 10.6 | 423 | 100 | 2.45 | 1.16 |
| al | 9 | 1 | 0 | | 1 | | 8 | | 1 | | 2 | | | |

Administrator and teacher opinions on the frequency of use of psychosocial motivation methods are presented below according to the highest and lowest averages; Opinions related to the Item 2 ($X=3.52$) are in the form of "Usually". Therefore, it was concluded that this motivation method is a method frequently used by administrators and teachers. Nelson (1999) suggests that providing instant approval and appreciation is very important in motivating workers, and this can easily be done by writing a letter or a thanks card that indicates

appreciation. The study conducted by Sağlam (2002) also supports this finding. Opinions related to the Item 3 ($X=1.46$) are at the form of "Never".

3.2. Frequency of Use of Organizational-Administrative Motivation Methods

As Table 2 demonstrates, administrator and teacher opinions on the frequency of use of organizational-administrative motivation methods are as follows: "Never" (5.52%), "Rarely" (9,35%), "Often" (19,40%), "Usually" (35,17%) "Always" (30,54%).

Opinions related to the Item 12 ($X=4.16$) are in the form of "Usually". The study carried out by Sağlam (2002) supports this finding.

Opinions related to the Item 20 ($X=4.11$) are in the form of "Usually". Sağlam (2002) has determined the frequency of use of this behaviour to be "Always" ($X=4.56$). Those working under positive physical conditions and in a pleasant atmosphere are more prone to be motivated than those working in boring, very hot or very cold and noisy environments (Maitland, 1998; Aytürk , 2001).

Table 2. Administrator and Teacher Opinions on the Frequency of Use of Organizational-Administrative Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | f | % | f | % | f | % | f | % | f | % | f | % | | |
| 9 | 73 | 13.8 | 81 | 15.3 | 103 | 19.5 | 150 | 28.4 | 122 | 23.1 | 529 | 100 | 3.31 | 1.34 |
| 10 | 19 | 3.6 | 31 | 5.9 | 81 | 15.3 | 213 | 40.3 | 185 | 35.0 | 529 | 100 | 3.97 | 1.03 |
| 11 | 15 | 2.8 | 47 | 8.9 | 111 | 21.0 | 175 | 33.1 | 181 | 34.2 | 529 | 100 | 3.86 | 1.07 |
| 12 | 12 | 2.3 | 27 | 5.1 | 57 | 10.8 | 199 | 37.6 | 234 | 44.2 | 529 | 100 | 4.16 | 0.96 |
| 13 | 25 | 4.7 | 51 | 9.6 | 124 | 23.4 | 180 | 34.0 | 149 | 28.2 | 529 | 100 | 3.71 | 1.11 |
| 14 | 28 | 5.3 | 55 | 10.4 | 128 | 24.2 | 181 | 34.2 | 137 | 25.9 | 529 | 100 | 3.65 | 1.12 |
| 15 | 22 | 4.2 | 33 | 6.2 | 74 | 14.0 | 236 | 44.6 | 164 | 31.0 | 529 | 100 | 3.92 | 1.03 |
| 16 | 47 | 8.9 | 87 | 16.4 | 137 | 25.9 | 176 | 33.3 | 82 | 15.5 | 529 | 100 | 3.30 | 1.17 |
| 17 | 20 | 3.8 | 56 | 10.6 | 131 | 24.8 | 202 | 38.2 | 120 | 22.7 | 529 | 100 | 3.65 | 1.05 |
| 18 | 27 | 5.1 | 52 | 9.8 | 118 | 22.3 | 204 | 38.6 | 128 | 24.2 | 529 | 100 | 3.66 | 1.10 |
| 19 | 40 | 7.6 | 64 | 12.1 | 114 | 21.6 | 156 | 29.5 | 155 | 29.3 | 529 | 100 | 3.60 | 1.23 |
| 20 | 8 | 1.5 | 30 | 5.7 | 80 | 15.1 | 187 | 35.3 | 224 | 42.3 | 529 | 100 | 4.11 | 0.96 |
| 21 | 27 | 5.1 | 32 | 6.0 | 81 | 15.3 | 186 | 35.2 | 203 | 38.4 | 529 | 100 | 3.95 | 1.11 |
| 22 | 46 | 8.7 | 47 | 8.9 | 98 | 18.5 | 160 | 30.2 | 178 | 33.6 | 529 | 100 | 3.71 | 1.25 |
| Total | 409 | 5.52 | 693 | 9.35 | 1437 | 19.4 | 2605 | 35.1 | 2262 | 30.5 | 7406 | 100 | 3.74 | 1.10 |

3.3. Frequency of Use of Material Motivation Methods

Administrator and teacher opinions on the frequency of use of material motivation methods are as follows: "Never" (38.6%), "Rarely" (14,08%), "Often" (17,10%), "Usually" (16,52%) "Always" (13,56%).

Table 3. Administrator and Teacher Opinions on the Frequency of Use of Material Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | f | % | f | % | f | % | f | % | f | % | f | % | | |
| 23 | 86 | 16.3 | 86 | 16.3 | 96 | 18.1 | 133 | 25.1 | 128 | 24.2 | 529 | 100 | 3.24 | 1.40 |
| 24 | 168 | 31.8 | 74 | 14.0 | 116 | 21.9 | 113 | 21.4 | 58 | 11.0 | 529 | 100 | 2.67 | 1.49 |
| 25 | 196 | 37.1 | 67 | 12.7 | 96 | 18.1 | 86 | 16.3 | 84 | 15.9 | 529 | 100 | 2.61 | 1.50 |
| 26 | 232 | 43.9 | 71 | 13.4 | 99 | 18.7 | 67 | 12.7 | 60 | 11.3 | 529 | 100 | 2.34 | 1.42 |
| 27 | 333 | 62.9 | 63 | 11.9 | 57 | 10.8 | 38 | 7.2 | 38 | 7.2 | 529 | 100 | 1.83 | 1.28 |
| 28 | 317 | 59.9 | 47 | 8.9 | 73 | 13.8 | 51 | 9.6 | 41 | 7.8 | 529 | 100 | 1.96 | 1.35 |
| 29 | 147 | 27.8 | 96 | 18.1 | 122 | 23.1 | 95 | 18.0 | 69 | 13.0 | 529 | 100 | 2.70 | 1.38 |
| 30 | 218 | 41.2 | 97 | 18.3 | 87 | 16.4 | 76 | 14.4 | 51 | 9.6 | 529 | 100 | 2.32 | 1.38 |
| 31 | 142 | 26.8 | 70 | 13.2 | 69 | 13.0 | 127 | 24.0 | 121 | 22.9 | 529 | 100 | 3.02 | 1.53 |
| Total | 183 | 38.6 | 671 | 14.0 | 815 | 17.1 | 786 | 16.5 | 650 | 13.5 | 476 | 100 | 2.52 | 1.41 |
| l | 9 | 3 | 8 | 8 | 0 | 2 | 2 | 6 | 1 | 100 | | | | |

Opinions related to the Item 23 ($X = 3.24$) are in the form of "Often" and opinions related to the Item 28 ($X = 1.96$) are in the category of "Rarely". The study conducted by Sağlam (2002) supports these findings.

3.4. The Effectiveness of Psychosocial Motivation Methods

Administrator and teacher opinions on the effectiveness of psychosocial motivation methods are as follows: "Not at all Effective" (15.12%), "A little Effective" (10.85%), "Somewhat Effective" (36.72%), "Very Effective" (36.72%) "Very Much Effective" (17.66%).

Table 4. Administrator and Teacher Opinions on the Effectiveness of Psychosocial Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | f | % | f | % | f | % | f | % | f | % | f | % | | |
| 1 | 29 | 5.5 | 59 | 11.2 | 131 | 24.8 | 233 | 44.0 | 77 | 14.6 | 529 | 100 | 3.51 | 1.04 |
| 2 | 16 | 3.0 | 27 | 5.1 | 89 | 16.8 | 261 | 49.3 | 136 | 25.7 | 529 | 100 | 3.89 | 0.94 |
| 3 | 178 | 33.6 | 68 | 12.9 | 81 | 15.3 | 143 | 27.0 | 59 | 11.2 | 529 | 100 | 2.69 | 1.44 |
| 4 | 109 | 20.6 | 63 | 11.9 | 98 | 18.5 | 170 | 32.1 | 89 | 16.8 | 529 | 100 | 3.12 | 1.38 |
| 5 | 133 | 25.1 | 51 | 9.6 | 127 | 24.0 | 143 | 27.0 | 75 | 14.2 | 529 | 100 | 2.95 | 1.39 |
| 6 | 64 | 12.1 | 65 | 12.3 | 95 | 18.0 | 205 | 38.8 | 100 | 18.9 | 529 | 100 | 3.40 | 1.26 |
| 7 | 105 | 19.8 | 80 | 15.1 | 127 | 24.0 | 138 | 26.1 | 79 | 14.9 | 529 | 100 | 3.01 | 1.34 |
| 8 | 7 | 1.3 | 46 | 8.7 | 82 | 15.5 | 262 | 49.5 | 132 | 25.0 | 529 | 100 | 3.88 | 0.92 |
| Total | 641 | 15.1 | 459 | 10.8 | 830 | 19.6 | 155 | 36.7 | 747 | 17.6 | 423 | 100 | 3.30 | 1.21 |
| l | 2 | 2 | 5 | 1 | 5 | 2 | 2 | 6 | 2 | | | | | |

Opinions on the Item 2 ($X = 3.89$) are in the category of "Very Effective". It was concluded based on findings that this motivation method is considered by administrators and teachers to be a highly motivating method.

Opinions on the Item 5 ($X = 2.95$) are in the category of "Somewhat Effective".

3.5. The Effectiveness of Organizational-Administrative Motivation Methods

Administrator and teacher opinions on the effectiveness of organizational-administrative motivation methods are as follows: "Not at all Effective" (3.60%),

“A little Effective” (6,55%), “Somewhat Effective” (18,75%), “Very Effective” (39,73%) “Very Much Effective” (31,27%).

Table 5. Administrator and Teacher Opinions on the Effectiveness of Organizational-Administrative Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | f | % | f | % | f | % | f | % | f | % | f | % | | |
| 9 | 43 | 8.1 | 25 | 4.7 | 83 | 15.7 | 235 | 44.4 | 143 | 27.0 | 529 | 100 | 3.77 | 1.14 |
| 10 | 11 | 2.1 | 27 | 5.1 | 74 | 14.0 | 229 | 43.3 | 188 | 35.5 | 529 | 100 | 4.05 | 0.94 |
| 11 | 13 | 2.5 | 31 | 5.9 | 103 | 19.5 | 210 | 39.7 | 172 | 32.5 | 529 | 100 | 3.93 | 0.98 |
| 12 | 9 | 1.7 | 33 | 6.2 | 78 | 14.7 | 225 | 42.5 | 184 | 34.8 | 529 | 100 | 4.02 | 0.94 |
| 13 | 19 | 3.6 | 50 | 9.5 | 128 | 24.2 | 188 | 35.5 | 144 | 27.2 | 529 | 100 | 3.73 | 1.07 |
| 14 | 18 | 3.4 | 40 | 7.6 | 124 | 23.4 | 200 | 37.8 | 147 | 27.8 | 529 | 100 | 3.79 | 1.03 |
| 15 | 19 | 3.6 | 30 | 5.7 | 98 | 18.5 | 187 | 35.3 | 195 | 36.9 | 529 | 100 | 3.96 | 1.05 |
| 16 | 29 | 5.5 | 39 | 7.4 | 129 | 24.4 | 225 | 42.5 | 107 | 20.2 | 529 | 100 | 3.64 | 1.05 |
| 17 | 12 | 2.3 | 45 | 8.5 | 126 | 23.8 | 217 | 41.0 | 129 | 24.4 | 529 | 100 | 3.76 | 0.98 |
| 18 | 16 | 3.0 | 45 | 8.5 | 111 | 21.0 | 226 | 42.7 | 131 | 24.8 | 529 | 100 | 3.77 | 1.01 |
| 19 | 22 | 4.2 | 33 | 6.2 | 75 | 14.2 | 226 | 42.7 | 173 | 32.7 | 529 | 100 | 3.93 | 1.04 |
| 20 | 8 | 1.5 | 22 | 4.2 | 95 | 18.0 | 216 | 40.8 | 188 | 35.5 | 529 | 100 | 4.04 | 0.91 |
| 21 | 24 | 4.5 | 25 | 4.7 | 85 | 15.1 | 183 | 34.6 | 212 | 40.1 | 529 | 100 | 4.00 | 1.07 |
| 22 | 24 | 4.5 | 40 | 7.6 | 85 | 16.1 | 177 | 33.5 | 203 | 38.4 | 529 | 100 | 3.93 | 1.11 |
| Total | 267 | 3.60 | 485 | 6.55 | 1394 | 18.7 | 2945 | 39.7 | 2316 | 31.2 | 7406 | 100 | 3.88 | 1.02 |

Opinions related to the Item 10 (X =4.05) are in the category of “Very Effective”. It can be thought that providing convenience for teachers who need casual or administrative leave through this method, which is considered by principals and teachers to be “Very Effective”, paves the way for the teacher to develop positive feelings towards the administrator and increases his/her morale.

Opinions related to the Item 13 (X =3.73) are in the category of “Very Effective”.

3.6. The Effectiveness of Material Motivation Methods

Table 6. Administrator and Teacher Opinions on the Effectiveness of Material Motivation Methods

| Items | Never | | Rarely | | Often | | Usually | | Always | | Total | | X | SD |
|-------|-------|------|--------|------|-------|------|---------|------|--------|------|-------|-----|------|------|
| | F | % | f | % | f | % | f | % | f | % | f | % | | |
| 23 | 46 | 8.7 | 33 | 6.2 | 91 | 17.2 | 179 | 33.8 | 180 | 34.0 | 529 | 100 | 3.78 | 1.22 |
| 24 | 80 | 15.1 | 57 | 10.8 | 127 | 24.0 | 163 | 30.8 | 102 | 19.3 | 529 | 100 | 3.28 | 1.30 |
| 25 | 74 | 14.0 | 45 | 8.5 | 102 | 19.3 | 181 | 34.2 | 127 | 24.0 | 529 | 100 | 3.45 | 1.31 |
| 26 | 96 | 18.1 | 41 | 7.8 | 94 | 17.8 | 189 | 35.7 | 109 | 20.6 | 529 | 100 | 3.32 | 1.37 |
| 27 | 137 | 25.9 | 52 | 9.8 | 94 | 17.8 | 142 | 26.8 | 104 | 19.7 | 529 | 100 | 3.04 | 1.48 |
| 28 | 147 | 27.8 | 54 | 10.2 | 110 | 20.8 | 136 | 25.7 | 82 | 15.5 | 529 | 100 | 2.90 | 1.44 |
| 29 | 68 | 15.7 | 51 | 9.6 | 133 | 25.1 | 171 | 32.3 | 106 | 20.0 | 529 | 100 | 3.37 | 1.26 |
| 30 | 83 | 15.7 | 63 | 11.9 | 122 | 23.1 | 172 | 32.5 | 89 | 16.8 | 529 | 100 | 3.22 | 1.30 |
| 31 | 57 | 10.8 | 41 | 7.8 | 103 | 19.5 | 173 | 32.7 | 155 | 29.3 | 529 | 100 | 3.62 | 1.27 |
| Total | 788 | 16.8 | 437 | 9.17 | 976 | 20.5 | 1501 | 31.6 | 1054 | 22.1 | 4766 | 100 | 3.33 | 1.32 |

Administrator and teacher opinions on the effectiveness of material motivation methods are as follows: “Not at all Effective” (16.86%), “A little Effective” (9,17%), “Somewhat Effective” (20,51%), “Very Effective” (31,61%) “Very Much Effective” (22,13%).

Opinions related to the Item 23 ($X = 3.78$) are in the category of "Very Effective" and opinions related to the Item 28 ($X = 2.90$) are in the category of "Somewhat Effective".

4. Conclusion and suggestions

4.1. Conclusions

It was determined after analyzing the findings obtained from the participant principals and teachers that organizational-administrative motivation methods are the methods that are used most frequently and providing the highest motivation.

Besides, when all methods are considered, behaviors that are not used frequently but considered by the participants to be "very effective" are the Items numbered 1-6-9-16-23-25 and 31.

4.2. Suggestions

Suggestions based on the research findings are juxtaposed below:

1. Tea events and cinema, theatre, picnic; sportive etc. activities should be organized periodically by school administrators in order to develop good relationships among teachers and to contribute to the solution of problems.
2. School administrators should send flowers to teachers on special days and organize "Welcome" parties for newcomers and "Goodbye" parties for those teachers leaving the school.
3. School administrators should be encouraged to participate in activities on the subject of motivation such as courses, seminars, in-service trainings etc.

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Subjective well-being, positive and negative affect in Turkish university students

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Abstract

The current study used a survey model to analyze 450 university students between 18 and 28 years of age to investigate associations between subjective well-being, positive and negative affect. Data were collected from Positive and Negative Affect Scale (PANAS) and Subjective Well-Being Scale. Pearson product-moment correlation coefficients were determined. We found that there was a significant negative relationship between subjective well-being and negative affect. However, there was a significant positive relationship between subjective well-being and positive affect.

Keywords: subjective well-being - negative affect and positive affect

1. Introduction

Emotions are born with life, and they develop and enrich through life. Emotional reactions of people are different than each other, and each person has a unique emotional characteristic (Köknel, 1997). For the individuals to handle the problems they are facing, first of all they should realize the emotions they have against that problem. Many psychological support approaches highlight emotional awareness as the main purpose for changing life and state that it is very important in mental health of the individuals (Kuzucu, 2006). Individuals who are in positive emotionality are happy, calm, free from stress, energetic and they establish good relations with the others (Nonaka, 1994). It is assumed that there is a positive relation between emotional awareness and psychological well-being (Kuzucu, 2006). In the recent years, another concept analyzed about happiness and mental health of individuals is subjective well-being.

Subjective well-being enables individuals to evaluate their life cognitively and effectively. This subjective definition about the quality of life is democratic in respect that each individual has the right to state whether their life is valuable or not (Diener, 2000). The focus of subjective well-being is why and how life is evaluated with positive means (Diener, 1984). Experimental findings show that individuals with high levels of subjective well-being display less mental disorders, they function more positively in the social environment, they have stronger interpersonal relationships, a optimal health oriented life style, more conformist personalities and also cognitive styles that enables more personal development possibilities (Diener 1984, 2000; Diener, Suh, Lucas and Smith 1999; Lyubomirsky, Sheldon and Schkade 2005; Pressman and Cohen 2005). High level of subjective well-being is the determinant of appropriate level of

functionality (Keyes 2006; Ryan and Deci 2001) and it is accepted as an important personal and social goal (Diener 2000).

The studies about the subjective well-being (Diener, 1984; Myers and Diener, 1995) show that subjective well-being is composed of three dimensions, and these are positive emotion, negative emotion and life satisfaction. For subjective well-being to be high, positive emotions should be more common than negative emotions and cognitive judgment of the individual about the quality of life should be positive (Tuzgöl-Dost, 2004). And in this research, the purpose is to analyze the relation between the subjective well-being of university students, and their positive and negative emotions.

2. Method

2.1. Participants

The survey model was used in the current study. The sample set of the research was taken from faculties of education, occupational, science, and technical education at Selcuk University in Konya / Turkey. Participants were 450 university students (219 female and 231 male) who participated in the research voluntarily. The mean age of the participants was 21.91 years, with a standard deviation of 1.51 years.

Table 1. Descriptive statistics

| | N | Minimu m | Maximu m | Mean | Std. Deviation |
|------------------------------|----------|---------------------|---------------------|-------------|-----------------------|
| Gender | 450 | 1,00 | 2,00 | 1,51 | 0,50 |
| Age | 450 | 18,00 | 28,00 | 21,91 | 1,51 |
| Negative affect | 450 | 10,00 | 50,00 | 22,58 | 7,68 |
| Positive affect | 450 | 10,00 | 50,00 | 34,12 | 7,63 |
| Subjective well-being | 450 | 103,00 | 229,00 | 173,06 | 25,54 |

2.2. Instruments

2.2.1. The Subjective Well-Being Scale (SWS):

The SWS was developed by Tuzgol Dost (2005). The scale consists of 46 items. By assessing individuals' cognitive appraisals of their lives and the frequency and intensity with which they experience negative and positive feelings, the scale intends to measure their degree of subjective well-being. The SWS includes evaluative statements about major domains of life and about positive and negative emotionality. A 5-point Likert scale is used: "(5) fully agree;" "(4) mostly agree;" "(3) agree;" "(2) somewhat agree;" and "(1) disagree." Each item has a score ranging from 1 to 5. There are 26 positive and 20 negative statements. In scoring, regular (positive) items are assigned points 1 to 5, whereas negative items are assigned points 5 to 1. The lowest possible score on the scale is 46 and the highest is 230. Higher scores indicate higher degree of subjective well-being. Internal reliability for the SWS was a Cronbach-alfa

coefficient of .93. In order to determine test re-test reliability the scale was administered to 39 persons. The time interval between two administrations was two weeks. Test re-test reliability yielded a correlation coefficient of $r = .86$.

2.2.2. Positive and Negative Affect Schedule (PANAS):

The PANAS (Watson et al., 1988) consists of two 10-item mood scales and was developed to provide brief measures of positive affect (PA) and negative affect (NA). Turkish adaptation studies were carried out by Gençöz (2000). Gençöz found two dimensions as in the original form and internal consistency coefficients were .83 and .86 for positive and negative affect, respectively; test-retest reliability for each was $r = .45$ and $r = .54$, respectively. Criterion-related validity was assessed by examining the relationship between the Beck Depression Scale and the Beck Anxiety Scale. The correlation coefficients were $-.48$ and $-.22$ for positive affect, .51 and .47 for negative affect.

2.3. Procedure

The Pearson correlation coefficient technique was used to determine the relationships between subjective well-being, positive and negative affect.

3. Results

Relationships between subjective well-being, positive and negative affect in University students were studied by Pearson product-moment correlation coefficients and results are given in Table 2.

Table 2. Correlations between subjective well-being, positive and negative affect

| | Positive affect | Negative affect |
|-----------------------|-----------------|-----------------|
| Subjective well-being | ,352** | -,493** |

** $p < .01$

As can be seen in Table 2, there is a statistically significant ($p < .01$) positive relationship between subjective well-being and positive affect. There is also a statistically significant ($p < .01$) negative relationship between subjective well-being and negative affect.

4. Discussion

In our research, it was found that there is a positive relation between the subjective well-being of university students and their positive emotions. Also the study revealed that there is a negative relation between subjective well-being and negative emotions. The findings of our study showed that as the positive

emotions of the students increase, their subjective well-being level also increases, and as the negative emotions increase, their subjective well-being levels decrease. This result suggests the importance of individuals to be in positive emotions. Also in a way, this study supports the approach in the subjective well-being studies (Diener, 1984; Myers and Diener, 1995) about the subjective well-being having two dimensions as positive emotion and negative emotion. This result shows that increasing the positive emotions of individuals and decreasing their negative emotions will affect their subjective well-being positively. For this reason, it would be beneficial to discuss positive and negative emotions in the psychological consultation process about the happiness and mental health of individuals. Furthermore, the activities performed about the positive and negative emotions within the guidance studies will be beneficial to increase the subjective well-being levels of students.

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