

ZJER

ZIMBABWE JOURNAL OF EDUCATIONAL RESEARCH

Volume 27 Number 1
March 2015



UNIVERSITY OF ZIMBABWE

Volume 27, Number 1, March 2015
ISSN 1013-3445

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Mainstreaming English Language, Mathematics and Science in Zimbabwe: Some Ethical Challenges

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Abstract

In this paper, we made the claim that there is a problem with the way the current Zimbabwean education curriculum is designed and implemented in both primary and secondary schools where subjects are put before the learner and learning often proceeds with the curriculum stipulating the subjects to be taught in order of their importance, with certain academic subjects being given more prominence than others. In getting to the above conclusion, we utilised the document research method. We argued for the need to give equal prominence to all academic subjects in order to develop a balanced graduate. This claim was made out of the realisation that education was multi-dimensional; that is, apart from developing cognitive/intellectual capacities in the child, it also promoted the development of the physical and moral powers of the learner. Against this backdrop, we argued that the development of the physical powers of the learner would only be made possible through the emphasis on the teaching of physical education and sport while the moral abilities of the learner would be awakened through emphasizing the teaching of indigenous languages as well as religious education among other humanities subjects.

Introduction

In this paper, we outline and discuss the dangers of mainstreaming certain academic subjects at the expense of others in Zimbabwean schools. We argue that while it is good to emphasize the teaching of English Language, mathematics and science for purposes of cognitive/intellectual development, it is equally good to emphasize the teaching of subjects such as religious education, art, physical education and indigenous languages like ChiShona, IsiNdebele, among other subjects for purposes of moral and physical development. In this paper, we proceed by defining and characterizing the concept of subject mainstreaming in Zimbabwean schools, before we look at what philosophers have said about this interesting subject.

As we look at what philosophers have said about subject mainstreaming, we pay particular attention to the contributions of prominent philosophers such as Jean Jacques Rousseau, Jean Pestalozzi and John Dewey. In the final analysis, we discuss the ethical challenges of subject mainstreaming noting that subject mainstreaming stifles the moral growth and development of the learner since the subjects that inculcate moral growth are classified as ancillary to English Language, mathematics and science.

Defining education and subject mainstreaming

We begin this section by defining the concepts *education* and *subject mainstreaming*. Education, generally, refers the transfer of knowledge from one generation to another, it is a system or practice of teaching and learning (Encyclopedia Americana, 1992). Also in its broadest sense, "education is any process by which an individual gains

knowledge or insight, or develops attitudes or skill” (Ibid.). However, while many scholars and students are attracted to this definition; philosophers are not in agreement as to what education really entails and they have tried as much as possible to problematize the definition.

In this section, we focus on the definitions of education by Plato and Richard Stanley Peters, among others. This is not to suggest that these two prominent philosophers have provided the most compelling definitions of education but that they have provided definitions that suit our purposes in this paper. *Education*, for Plato, is that initial acquisition of virtue by the child, when the feelings of pleasure and affection, pain and hatred, that well up in his soul are channelled in the right courses before he can understand the reason why (Plato cited in Tesha, 2014). For Plato, *education* is a stage by stage process. To illustrate his point, Plato uses what he calls, the allegory of the cave. In the allegory of the cave, Plato wants us to imagine a situation in which some men are chained inside a cave with their backs behind the entrance of the cave and their faces looking at the wall of the cave and between these men and the entrance there is fire burning casting shadows of people carrying firewood on the wall of the cave (Plato cited in Stumpf, 1982: 49). To these men, reality is those shadows that they are seeing and nothing more (Ibid.).

Now suppose, if one of these men was to be unchained and allowed to get out of the cave, he would-- after being blinded by the sun for a while -- be able to know that what he was seeing in the cave was not the real objects and when he gets back to the cave, he will be able to tell his colleagues that hey, reality is outside the cave (Ibid.). Using this illustration, Plato argues that education is “a leading out” process, that

is, it leads people from the dark cave of ignorance into the limelight of knowledge (Plato cited in Tesha, 2014).

Plato argues that education is not what some people declare it to be, namely, putting knowledge into souls that lack it, like putting sight into a blind eye; instead education is like a vision in that it requires an organ capable of receiving it (Ibid.). Just as one of the prisoner had to turn his whole body around in order that his eyes could see the light instead of the darkness, so also it is necessary for the entire soul to turn away from the deceptive world of change and appetite that causes a blindness of the soul (cited in Stumpf, 1966: 54-55). But what is important for Plato is that as a virtuous process, education must develop moral excellence in the learner.

Peters who came many centuries after Plato, defines *education* as “a territory with very few sign posts” (Peters, 1967:1). Education, for Peters, refers to “no particular process; rather, it encapsulates criteria to which any one of a family of processes must conform” (Ibid.). What this suggests for Peters is that *education* is like *reform* which picks out no particular process (Ibid.). For Peters, people can be reformed by imprisonment and/or by studying the holy book, which is the Bible (Ibid.). In a similar way, people can be educated by rigorous study, formal instruction or by exploring the environment (Ibid.).

Peters also overemphasizes the point that education is a moral concept. By this he meant that the concept of education cannot be separated from value judgements (Ibid, p.3). Thus, for Peters any method of education that is employed by the teacher must allow the pupil to learn by presenting some sort of task is presented to him. For Peters, if any process is to count as an educative process, then the conditions of willingness and voluntariness on the part of the learner must be satisfied

(Ibid.). Education should, therefore, be a morally legitimate procedure aimed at creating, in the learner a desirable state of mind (Ibid.). It is important to note that although Plato and Peters philosophized about education in different contexts and times, they both agreed that education was a value laden concept. We will explore this argument further as we look at the moral limits of subject mainstreaming in Zimbabwe.

Having succinctly defined the concept of education, we will now look at the concept *subject mainstreaming*. By definition, *subject mainstreaming*, refers to the process of ranking academic subjects in terms of their *utility*, that is, in terms of how the academic subjects can help the learner to develop skills that will enable him or her to get the much sort after employment opportunities in future. In Zimbabwe, it is almost every learner's dream – when they finish school – to become pilots, engineers, medical doctors, pharmacists, lawyers and accountants among other esteemed professions.

The reason is that the current curriculum in Zimbabwe streamlines or ranks subjects 'in order of importance' with subjects like English Language, mathematics and science being regarded as gateways to the above mentioned professions, which professions are perceived to have more economic value than lecturing, teaching, nursing and policing to name just a few of the most looked down upon professions in Zimbabwe. It is against this background that subjects like English Language, mathematics and science are made compulsory in Zimbabwe while the rest are regarded as ancillary. While subject mainstreaming starts at primary school level, it is more prevalent at

secondary school level where the process of subject specialization begins.

The 'rationale' behind subject mainstreaming in Zimbabwe

In Zimbabwe, subject mainstreaming begins at secondary school level where learners come to terms with the reality that English Language, mathematics and science are key subjects in their academic careers. Starting from Form 1, learners are already conscientised to take their English Language, mathematics and science lessons seriously and nothing much is said about the other subjects serve to say that in order for one to pass his Ordinary level course, he or she must have at least 5 subject passes that include English Language, mathematics and science. Even parents are given the impression that without English Language, mathematics and science, the child's life is doomed and so they (parents) expend their financial energies sending their children for extra lessons in these three subject areas.

The situation is further compounded by the fact that no one can enrol at a teachers' training college without English Language and mathematics and no one can train as a nurse without English Language and science. This is a serious challenge for many school leavers given that teaching and nursing are two of Zimbabwe's most popular professions. In their reactions against the idea of subject mainstreaming; Nyoni, Chinyani and Nyoni (2013: 169) ask the question: Does one really need Ordinary level mathematics and science to teach at primary school? While Nyoni, Chinyani and Nyoni do not seem to provide an answer to this immediate question, our answer to it is no. Mathematics and science will not help anyone to

teach at primary school or any other level except in those subject areas.

It is also important to note that subject mainstreaming does not end at Ordinary level. At Advanced level, there is also overemphasis on subject combinations that have mathematics and science. In fact, students who have these subject combinations consider themselves to be superior to those that have other subject combinations like divinity, IsiNdebele, geography, history and ChiShona or any other indigenous languages. But is this supposed to be the case? Certainly not.

Every academic subject that is offered at high school has a positive effect on the growth and development of the child. While some scholars would argue that industry and commerce require trained mathematicians and scientists and while this submission can be granted; we feel that education is much more than fulfilling requirements for industry and commerce. Against this background, we argue that all subjects should be considered on their own merit.

But where is this thinking coming from; that English Language, mathematics and science are more important than 'other' subjects? It is probably coming from two deadly assumptions: The assumption that education must equip the learner with skills that will enable him or her to go and work for someone and the assumption that what is European is best. Let us now explore these two assumptions further. Beginning with the first assumption, we argue that the type of education which Zimbabwe adopted after independence was such that children were prepared for the world of employment where there was no emphasis on the teaching of hand and life skills subjects like woodwork, fashion and fabrics, metalwork, physical education, art as well as sociology,

history, religious education, ChiShona, IsiNdebele and any indigenous language respectively.

While these 'other' subjects were relatively important to the curriculum planners, designers and implementers; they were not considered to be gateways to desirable and better paying professions like engineering, medicine, pharmacy and accounting among other so-called esteemed professions. For a person to be able to join these so-called esteemed professions, one needed scientific skills as well as good communication skills, hence the emphasis on English Language, mathematics and science. But is life all about working for others? The answer is no. The Zimbabwean society has many successful people who have never worked for anyone.

A prosperous country requires people who can work for corporate organizations, government institutions and non-governmental organizations as well as people who can create employment for others as well. Most importantly, a prosperous country does not only need skilled accountants, doctors, pharmacists and engineers. It also needs skilled accountants, doctors, pharmacists and engineers who are morally upright if the fight against cancers like corruption at work, bribes and nepotism that are currently bedevilling our society is to be won.

With regard to the second assumption, it is important to note that British colonizers wanted indigenous blacks to speak English so that they would do menial jobs for them such as serving in the kitchen, maintaining grounds and doing clerical work. Thus, English Language would become a strategic language of communication. Besides

communication, the introduction of English Language (in place of IsiNdebele, ChiShona and other indigenous languages) would ensure that African value systems are eroded. Walter Rodney (1973: 272) puts this point into proper perspective when he argues that, in the minds of the British colonizers, it was important for the blacks to learn English in order to “create a fair minded Englishman who would cease to think like an African.” There is a saying which goes like: “If you want to conquer a people, you begin by destroying their language.” This saying has proper application in this paper.

As an independent country seeking a break from the colonial past, we have always done well in crafting our very own economic blue prints such as the Zimbabwe Agenda for Sustainable, Socio-Economic Transformation (Zim Asset). It is in the implementation stage that we have failed as a nation. Through the recent economic blue print, Zim Asset, we need to re-align our thinking on this issue of subject mainstreaming and come up with system of education that will develop and promote our own value systems. In fact, one of the clusters of the Zim Asset economic blue print is *value addition and beneficiation*. The question we should ask ourselves is: What value do we derive from mainstreaming colonial subjects like English Language at the expense of indigenous subjects? To whose benefit is this mainstreaming?

Our position is that while we do not see any value in mainstreaming colonial subjects like English Language; we see value in giving all subjects equal prominence as we believe that equal emphasis on the teaching of indigenous languages and religious education among other humanities subjects will benefit us as a nation as this will help us to deal with the issue of cultural erosion that we are currently experiencing.

There is nothing wrong with the teaching of English Language for as long as an equal emphasis is given to the other subjects such as ChiShona, IsiNdebele, craft, physical education, history as well as religious and moral education among others.

The idea is to nurture a whole person who is developed in terms of cognitive/intellectual, moral and physical capacities. At the moment it seems we are only concentrating on cognitive/intellectual capacities and that is probably why we have a lot of morally corrupt business people, accountants, lawyers, doctors and chief executive officers (CEOs). Probably, before we look at the moral limits of subject mainstreaming in Zimbabwean schools, it may be important to hear what philosophers have said about this issue.

What philosophers have said about subject mainstreaming

Philosophers who subscribe to the school of thought called progressivism have voiced their concerns regarding the subject of mainstreaming in schools, in general. These include among others Jean Jacques Rousseau, Jean Pestalozzi and John Dewey among others. To begin with, Rousseau (cited in Akinpelu, 1981: 51) argues that the education of the child should focus mainly on his or her experience, interests and needs. For Rousseau, the child must not be crammed with books and must not be ordered or compelled to do what he or she is not interested in (Ibid.). Thus, education should not be seen as the means by which we suppress and inhibit the natural tendencies of children towards evil; rather, their natural tendencies are towards good and education must seek to protect them from the corrupting influence of society (Rousseau cited in Kelly, 1987: 15).

What Rousseau is probably saying here is that since human beings are naturally corrupt by virtue of 'meddling,' then they must not influence the child by imposing the subjects he or she is to learn but must allow the child to choose the subjects of their choice and in the process let them discover what is right and wrong naturally. Thus, Rousseau emphasized more on learning than on teaching. Against this background, he remarks, thus:

Give your child no verbal lessons, he should be taught by experience alone... and let him know nothing because you have told him but because he has learnt it for himself. The child must be seen for what he is here and now and not what he is to become, that is, the child was to be seen not as a man-in-the-making but as a child with childish interests and characteristics (Rousseau in Kelly, 1987: 15).

What Rousseau is saying here is that subject mainstreaming, gives the wrong impression that certain subjects are good for the child while others are not. This is despite the fact that curriculum planners have not done considerable research to find out more about the interests, needs and pre-dispositions of these children. Curriculum planners are giving the wrong impression that they already know children's interests, needs and pre-dispositions better than the children themselves, something akin to putting the cart before the horse. No doubt, this kind of argument has a utilitarian value especially if we, as educators, are interested in what these children will become than what they are now. It may help to go back to Plato who defined education as a stage by stage process in order to understand why it is important to treat children as children and not as miniature adults. This, however, poses a serious challenge when we consider that education is supposed to be a step by step process which starts from childhood/infanthood to adulthood.

Pestalozzi, like Rousseau, observed that the education of the child was supposed to be grounded on the child's expressed interests, personal experiences and observed capacity (Pestalozzi in Akinpelu, 1981: 58). More importantly, for Pestalozzi, the development of the child was supposed to follow its own internal and unchanging law of growth (Ibid.). For Pestalozzi, there was an inner principle of development in the universe, a sort of pattern according to which each thing developed into the best of its type (Ibid.). From this reasoning, one can make the inference that every academic subject contributes something to the development of the child.

Pestalozzi maintained that since the child had its natural principle of growth, education was no more and no less than a discovery of this inner principle and the promotion of the unfolding of the child's powers (Ibid, p. 59). The purpose of education, for Pestalozzi, was therefore to aid or facilitate this growth process. Put simply, education was a direction of growth through the provision of proper nourishment and guidance (Ibid, p. 61). Having said that, we probably need to answer the following questions: Does the provision of proper nourishment and guidance involve choosing the subjects which children should learn? Does the provision of proper nourishment and guidance require that curriculum planners rank academic subjects in order of importance?

We argue that if education is an aiding or facilitating process of the child's growth and development, and if each child is unique in his or her own way, then children should be allowed to make choices when it

comes to subject combinations than adults choosing what they think is good for them. Thus, proper nourishment and guidance require curriculum designers and implementers to know what learners really want rather than mainstreaming subjects in order of importance. We also argue that there is a lot of subjectivity when it comes to the issue of mainstreaming. For instance, how and why should we trust the opinions of those who claim that English Language, mathematics and science are more important than history, religious studies and indigenous languages? Don't these claims depend on the prejudices and biases of those who make such claims?

John Dewey (1963: 134) also added his voice to the debate on subject mainstreaming as he believed that the school was a purified and miniature community where students can explore and evaluate ideas. For him, teachers were only guides in this process (Ibid, p. 136). Just like, Rousseau and Pestalozzi, who came before him; Dewey also talked about the concept of growth when he argued that growth was a criterion for judging individual behaviour, while democracy was the means of judging social behaviour (Ibid, p. 136).

Regarding the issue of children being at the centre of all education, Dewey argued that the teacher was supposed to use subjects to enliven interest (Dewey, 1933: 18). Put differently, the teacher was supposed to relate subject matter to the interest of the child. For Dewey (1956), the curriculum was supposed to stress the importance of child-centred aims which would make the needs of the developing child, the criteria for selecting curriculum content. Thus, subjects were supposed to be put in a tray in order to allow the child to choose the subjects of his or her choice (Ibid.).

The problem with the education system during Dewey's time was that it was based on the assumption that subject-matter was more important than the content of the child's experiences (Dewey, 1990: 186). The child was treated like an immature being that was to be matured; the super final being who was to be deepened and whose narrow experience needed to be widened (Ibid.). Thus, the child was supposed to receive and accept whatever was given to him by the teacher or instructor (Mangena, 2002: 27).

The dangers of subject mainstreaming in Zimbabwe

In this section, we need to answer the question: What are the moral challenges of mainstreaming English Language, mathematics and science in Zimbabwe? At face value, it would appear as if there are no moral challenges. But a closer look at the Zimbabwean education system today would show that children get to learn about their culture and values in their native languages than in foreign languages. As remarked earlier in this paper; "if you want to conquer a people, you begin by destroying their language." The British colonizers knew that it was important to introduce subjects like English Language, mathematics and science in order to destroy the Shona, Ndebele and other indigenous culture and value systems so that they would be able to introduce Christianity which would, in turn, promote their values.

Some people might ask: Is mathematics a language? Is science a language? We would respond to these questions by noting that if languages are there, among other things, to communicate a people's culture and value systems, then mathematics and science, as introduced by colonialists using their language, are languages that are there to communicate Western culture and value systems. From a

Western perspective, mathematics is a language of numbers and numbering, while science is a language of cause and effect. As Africans, we have a system of numbering, and a system of understanding cause and effect as defined by our culture. This means Africans have their own mathematics and science naturally encapsulated in their cultural systems. Such African cultural systems may not be adequately covered in the *current* mathematics and science subjects *as* introduced by colonialists. This means that the *current* mathematics and science add little value to the African value systems, especially the indigenous person whose idea of morality comes from one's association with the philosophy of *hunhu* or *ubuntu* which is a philosophy about group participation and belonging.

One does not need an appreciation of English Language, and the *current* mathematics and science in order to be a *munhu* or *umuntu* (person). Instead, this philosophy is today packaged in the indigenous languages only and to a certain extent in the multi-faith teaching of religious education. The point we are making is that mainstreaming subjects like English Language, the *current* mathematics and science at the expense of indigenous languages would, no doubt, lead to moral and cultural confusion. There is also an urgent need to overhaul the *current* mathematics and science subjects so that they subsume African value systems. The *new Africanised* mathematics and science subjects should aim to grow the learner in African value systems without losing the academic knowledge necessary in the learning of such subjects. As much as they may be steeped in African value systems, however, this argument does not call for the mainstreaming of these *new Africanised* mathematics and science subjects.

Zimbabwe has, since independence, suffered from many scandals including the Willowgate, Asiagate and salary gate scandals because our education has not invested in the teaching of values. In order to develop an all rounded professional with cognitive/intellectual, moral and physical aptitudes, we need to abandon the idea of mainstreaming English Language, the *current* mathematics and science and treat all academic subjects as equal. While these three subject areas will, no doubt, equip the learner with cognitive/intellectual skills, religious education, history as well as indigenous languages such as IsiNdebele and ChiShona, will equip the learner with moral or life skills. With this approach, we may as a nation, be protected from such selfish attitudes as participating in the throwing away of football matches by our national team or earning a salary of over US\$200 000 per month when other people are going for months without food.

Conclusion

This paper outlined and discussed the dangers of mainstreaming subjects like English Language, the *current* mathematics and science in Zimbabwe at the expense of indigenous languages and other subjects such as religious education, history and sociology. The article noted that only a paradigm shift, that is, a new emphasis on the teaching of indigenous languages, history, religious education and sociology, among other subjects, would save this country from moral malaise it is currently facing. This, however, requires us to abandon two deadly assumptions: the assumption that education is about creating an employee and the assumption that what is European is always best.

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