Volume 14 Number 3 November 2002
ISSN 1013 - 3445
CONTENTS

Early Adolescents’ Self-esteem and Achievement
Alfred Zengeya

Teachers’ Perception of Giftedness and Talent Among Primary School Children
Constantine Ngara

Relative Effects of Cooperative Class Experiment Teaching Method on Secondary School Students’ Motivation to Learn Chemistry in Nakuru District, Kenya.

Samuel W. Wachanga

Teaching Old Testament Studies in Zimbabwe's Theological Institutions in the HIV/AIDS Era
Lovemore Togarasei

Sharing Teacher Expertise Through Subject Specialisation (in the Primary School [STESS])

Obert P Ndawi


Pharaoh Joseph Mavhunga
Zimbabwe Journal of Educational Research

The ZJER is published three times a year by the University of Zimbabwe, Human Resources Research Centre (HRRC).

Editor-in-Chief: Professor F. Zindi
Technical Editor: M. Chirumiko

Editorial Board
Charles M. Nherera
Chinhoyi University College
Levi. M. Nyagura
University of Zimbabwe

Editorial Advisory Board
Linda Chisholm
Witwatersrand University
Danton S.J. Mkandawire
University of Namibia

ORDERING INFORMATION

Within Zimbabwe

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>Three Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Z$1200</td>
<td>Z$3000</td>
</tr>
<tr>
<td>Institution</td>
<td>Z$2400</td>
<td>Z$4800</td>
</tr>
</tbody>
</table>

SADC

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>Three Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>US$120</td>
<td>US$270</td>
</tr>
<tr>
<td>Institution</td>
<td>US$145</td>
<td>US$320</td>
</tr>
</tbody>
</table>

Africa

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>Three Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>US$120</td>
<td>US$270</td>
</tr>
<tr>
<td>Institution</td>
<td>US$145</td>
<td>US$320</td>
</tr>
</tbody>
</table>

Outside Africa

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>Three Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>US$120</td>
<td>US$250</td>
</tr>
<tr>
<td>Institution</td>
<td>US$145</td>
<td>US$370</td>
</tr>
</tbody>
</table>

Single Copies: Z$500

HRRC, Faculty of Education
University of Zimbabwe
P O Box MP167
Mount Pleasant
Harare, Zimbabwe
Email: hrrc@justice.com
Contents

Early Adolescents' Self-esteem and Achievement
*Alfred Zengeya* 197

Teachers' Perception of Giftedness and Talent Among Primary School Children
*Constantine Ngara* 213

Relative Effects of Cooperative Class Experiment Teaching Method on Secondary School Students' Motivation to Learn Chemistry in Nakuru District, Kenya
*Samuel W. Wachanga* 229

Teaching Old Testament Studies in Zimbabwe's Theological Institutions in the HIV/AIDS Era
*Lovemore Togarasei* 254

Sharing Teacher Expertise Through Subject Specialisation (in the Primary School [STESS])
*Obert P. Ndawi* 272

Vocationalisation of the Secondary School Curriculum as an Instrument for Human Resources Development: Zimbabwean Experiences, Challenges, and the Way Forward
*Pharoah Joseph Mavhunga* 304
# Appendix 1
## The LAWSEQ Questionnaire

You must answer all the questions. Tick (✓) the boxes that apply to you.

<table>
<thead>
<tr>
<th></th>
<th>1. Do you think that your parents usually like to hear about your own ideas?</th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2. Do you often feel lonely at school?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3. Do other students often get fed up with you and stop being friends with you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4. Do you like outdoor games?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5. Do you think that other students often dislike you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6. When you have to say things in front of teachers, do you usually feel shy?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7. Do you like writing stories or doing creative writing?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8. Do you often feel sad because you have no-one to talk to at school?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9. Are you good at Mathematics?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10. Are there lots of things about yourself you would like to change?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>11. When you say things in front of other students, do you usually feel foolish?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>12. Do you find it difficult to do things like woodworking or knitting?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>13. When you want to tell a teacher something do you usually feel foolish?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>14. Do you often have to find new friends because your old ones prefer others to you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>15. Do you usually feel foolish when you talk to your parents?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16. Do other people often think that you tell lies?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The study was undertaken to explore teachers' perceptions of giftedness among primary school children with a view to improve the identification and education of gifted and talented children. Using a sample of 74 primary school teachers selected at random in Chitungwiza District in Zimbabwe and a questionnaire, the study established that teachers perceived giftedness in terms of academic achievement. Teachers revealed that they regarded intellectual/academic domain as the essential dimension of giftedness. This was reflected in both the characteristics teachers attributed to giftedness and the methods they adopt to develop giftedness and talents in children. The study also showed that apart from teaching qualification, variable factors like gender, teaching experience and type of training college one went to did not influence teachers' perceptions of giftedness in children. The study therefore proposed the following recommendations:

- that teacher education curriculum should expand teachers' understanding of giftedness in a broad sense that includes non-traditional giftedness;
- that identification and education of gifted and talented children should be formalised right from the grassroots of the educational ladder;
- that multi-dimensional techniques of identifying gifted and talented children (recommended by Hardway and Marek-Schroer, 1992) be adopted as they have a greater chance of identifying various categories of giftedness in children;
- That student teachers in colleges be involved in Curriculum Depth Study (CDS) on some aspects of identifying and teaching gifted and talented children; and
- That each school should have special programmes for identifying and developing giftedness and talent in children.
Background

Teachers are aware that every child is unique and they strive to provide for each child's unique needs in teaching/learning situations. However, giftedness among children is one form of uniqueness that poses greater challenge to ordinary schools' pedagogy. Some children manifest striking talents as 'maths whiz', musical prodigy, or poet while other children are talented in Science, Computers, Arts and Humanities (Smutny, 1994). Those who manifest striking talents are easily identified while the other gifted lot whose potential is not realised into observable outstanding production is rarely identified.

That there are gifted children is as true as the fact that there are retarded children. This is a fact of nature, which is demonstrated on the normal distribution curve of measured intelligence (using parametric statistics). Also in this context, Kokot (1992) states that gifted children are found in all societies and cultures. However small their number may be, gifted and talented children have specific needs which educators cannot ignore. Some gifted children either fail or drop out of school for various reasons. Other children later discover in life talents like carving, music, and sport and become very prominent people yet most school, probably ignore these talents.

Schools as socialising agents should not only concentrate on the willful development of children but should also strive for the fullest development of innate gifts and talents. Schools' effectiveness should be assessed against their ability to identify and develop gifts and talent in children. However, the identification process should not be taken for granted for it assumes that there is consensus on what we perceive as giftedness or talent. This raises epistemological, psychological, sociocultural and pedagogical issues.
Epistemological Issues

If giftedness is equated with ability in the scholastic field, the question then is, what domain of knowledge do schools consider for assessing gifts and talents in children (e.g. academic or practical giftedness)?

Psychological Issues

If intelligence is multifaceted (Gardner, 1983), do we have valid and reliable instruments that can measure all possible dimensions of giftedness? How do we measure potential and how can we identify it in children?

Socio-cultural Issues

Since education is among other things expected to transmit social values, norms, culture, e.t.c., is the gifted child one who exhibits the best socio-cultural adjustment and fit? Do we use this framework for identifying gifted children?

Pedagogical Issues

Since we learn differently, which child then is gifted: one who meets the demands of the syllabus by regurgitating facts (i.e. good memory, good reproduction capacity) or one who can think in novel ways even in controversial/uncontroversial way? Is the gifted child the good communicator in language or one who is technologically minded or the socio-cultural conformist?)

Although the identification of gifted children can be made using a variety of tools and techniques such as testing, checklists, amassing students' "portfolios", observation, e.t.c. (Hardway & Marek-Schroer, 1992), McBride (1988) argues that the teacher remains the crucial factor. Ultimately s/he decides what curriculum to implement, how to implement it and how to shape and assess children's total development.
Whatever the planned curriculum emphasises, it is the teacher’s interpretation which will affect its implementation. According to Drew, Egan, and Wolf (1993) there is no unanimity on what giftedness is. Besides that, as noted by Sternberg (cit Azar, 1995), measured definitions of giftedness are no longer appealing in psychology. McBride's study (1992) also indicated that teachers did not regard IQ testing as a viable option because of the inaccessibility of ‘resource’ or guidance personnel who would interpret the IQ test scores. In this scenario, teacher nomination remains one of the most viable options which none of the other identification methods can do without.

However, teacher nomination has got its own problems. There is a misconception amongst teachers as to their understanding of giftedness or talent in children. The study was therefore, designed to investigate teachers' perceptions of giftedness and talent in children. To do that, the study sought to analyse:

- the major characteristics which teachers attribute to giftedness and talent in children;
- the methods which teachers use to identify gifted/talented children in their schools;
- the educational provisions teachers adopt to develop gifts and talents in children; and
- what teachers regard to be the essential domains/dimensions of giftedness in children.

The study also sought to find out whether demographic variables (i.e. gender, teaching qualification, teaching experience and one's training college) influence teachers' perceptions of giftedness in children.

**Procedure**

The study employed the descriptive research strategy within the case study design using both quantitative and qualitative methods. Data was collected from 74 primary school teachers selected at random from
Chitungwiza District schools. Each teacher completed a questionnaire designed with both closed and open-ended items seeking teachers' responses on:

- characteristics teachers attribute to giftedness and talent in children;
- identification methods and techniques teachers employ to ascertain giftedness in their schools; and
- educational provisions teachers adopt for gifted children in their schools.

A split-half reliability coefficient of 0.74 was obtained in a pilot study with 14 subjects selected from the same population of teachers in the main study. The instrument was judged to be quite reliable.

Analysis and Results

Data was reduced to frequencies and percentages and the significance of association between response and demographic variables was tested by chi-square. The qualitative component of the study involved descriptions using percentages, classifying and interpreting both identified and implied attributes of giftedness which teachers perceived in children.

Characteristics

As reflected by the responses to the questionnaire, the common characteristics which teachers attributed to giftedness in children are:

- always getting top marks/grade;
- demonstrating outstanding achievement in class;
- differ form other children in intellectual or academic characteristics;
- quickness to grasp concepts/finish class-work; and
- excelling in both academic and non-academic areas.

A chi-square test of association of response by gender indicated no significant relationship in all the four items under characteristics (see
questionnaire e.g. item 2)
\[ x^2 = 0.22 < 3.84 \text{ (1 d.f.) at 5\% level of significance.} \]

A chi-square analysis by type of college attended (i.e. Government, Private, and Other, where 'other' refers to previous teachers' colleges which have since stopped training teachers in Zimbabwe) also found no significant relationship (e.g. item iii \[ x^2 = 0 < 5.99 \text{ (2 d.f.) at 0.05 level.} \]

Another chi-square analysis of possible association by teaching experience also indicated no significant relationship in all the four items (e.g. Item iii \[ x^2 = 5.15 < 7.81 \text{ (3 d.f.) at 5\% level.} \] But chi-square analysis of association by teaching qualification indicated a significant relationship (see Table I).

<table>
<thead>
<tr>
<th>Table I</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp; one or more of the above &amp; 6(6)</td>
</tr>
<tr>
<td>TOTAL &amp; 4(4)</td>
</tr>
</tbody>
</table>

\[ x^2 = 8.35 > 7.81 \text{ (3 d.f.) at 0.05 level of significance.} \]

We reject H_0 and conclude that teaching qualification influences teachers' response in their perceptions of giftedness in children.

Identification Method

<table>
<thead>
<tr>
<th>Table II</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDENTIFICATION &amp; M</td>
</tr>
<tr>
<td>Teacher observation &amp; 31</td>
</tr>
<tr>
<td>Using checklists/rating scales &amp; 2</td>
</tr>
<tr>
<td>Intelligence testing by psychologists &amp; 3</td>
</tr>
<tr>
<td>Other &amp; 2</td>
</tr>
<tr>
<td>TOTAL &amp; 36</td>
</tr>
</tbody>
</table>
As reflected by teachers' responses (see Table II and Table III) the most common identification methods adopted by teachers in Chitungwiza schools were:

- teacher observation (88%);
- teacher observation based on comparing academic performance through tests and examinations (66%); and
- selecting by outstanding achievement.

An open-ended probe on whether all gifted and talented children demonstrate outstanding achievements showed that only very few teachers were aware that not all gifted children manifest their giftedness potential in observable productions (24%). Those few teachers pointed out hidden talents, shyness and inhibitions caused by negative factors. None of the demographic variables tested by chi-square appeared to significantly influence teachers' responses on identification methods.

**Provisions**

The results of the study on provisions indicated that 68% of the teachers provide enrichment programmes to gifted and talented children in their schools. The enrichment programmes indicated are mainly:

- giving more challenging written work;
- give supplementary reading materials; and
- giving extra work in the form of home work/assignments.
On acceleration, 61% of the teachers indicated that they provide acceleration programmes for gifted and talented children in their schools. The most common form of acceleration is; early school enrolment (56%) and grade skipping (10%).

An open-ended probe to those who admitted that they did not provide acceleration programmes showed that they did not know how to accelerate. The study also established that the majority of teachers (96%) mostly used ability grouping in class to develop gifts and talents in children.

Interpretation

The study's results reflected that the major characteristics which teachers attribute to giftedness in children are mainly in the intellectual/academic domain. On how teachers identified giftedness and talents in children, the study showed that teacher-observation over-relied on comparing tests and examination grades. This also confirmed the teachers' perception of giftedness as essentially intellectual/academic ability. Finally, the provisions which teachers reportedly adopt to develop giftedness and talents in children (i.e. enrichment by extra and challenging written work, acceleration by early school enrolment or grade skipping and grouping by ability) also indicated that teachers mostly regard the scholastic/academic domain as the essential dimension of giftedness in children. Apart from teaching qualification, all demographic variables tested appeared not to influence teachers' perceptions of giftedness and talent in children.

Discussion

This study has shown that teachers' perceptions of giftedness are dominated by notions of scholastic or academic achievement. The results of this study are consistent with other previous studies such as Coleman and Gallagher (1992) who criticised teacher nomination of gifted/talented children as inaccurate because teachers tended to over-
rely on grades, classroom performance and motivation. In similar studies by McBride (1988) it came out that those teachers who were less experienced in the pedagogy of gifted/talented children also relied on classroom testing to determine gifted nominees for special programmes. By determining gifts and talents through testing and grades teachers revealed highly academic hence, limited perceptions of gifts and talents in children. Other forms of giftedness which cannot be measured by academic tests are therefore, not identified and hence not developed in schools.

Also in agreement with McBride's (1988) observation that teachers who were less experienced in gifted-children's education showed differences with those who were experienced in their perceptions of giftedness, and the methods they adopted to identify giftedness in children, this study reflected that differences in perceptions of giftedness did exist between the diploma trained and the rest of the other teachers who were not diploma trained. The Diploma in Education (Primary) was the highest professional qualification among the teachers who were studied and this group appeared to have a broader view of giftedness in children compared to the rest of the teachers who were trained earlier than them.

Other previous researchers' findings seem to confirm Gardner's (1983) multi-faceted view of intelligence. Reference is made to Renzulli's (1978) "Triad Model" (above average ability, creativity, and task commitment), Silverman's (1994) "Advanced Moral Sensitivity" and Bland, Sowa and Callahan's (1994) "Resilience". None of these characteristics were identified by the studied teachers apparently because they are not usually revealed in academic assessments by tests and examinations which teachers rely so much on to identify giftedness and talents in children.

**Conclusion**

It was established in this study that teachers perceive giftedness in children in terms of academic performance. Teachers therefore regard
intellectual academic domain as the essential dimension of giftedness in pupils. This study proved that teachers' perceptions of giftedness affect both the methods and techniques they use to identify and develop giftedness and talent in children. Therefore, teachers' perceptions are quite critical in the development of gifted education in schools. Their limited or confused perceptions of giftedness imply limited identification and inefficient development of gifts and talents among their children. However, the study has shown hope of developing teachers' perceptions through training for teaching qualifications showed a significant relationship with teachers' perceptions of giftedness and talent in children.

References


C. Ngara

perspective. Durban, Butterworths.


Questionnaire For Vocational Technical Garment Construction Syllabus Teachers

Part I

I am a BEd student in Technical Education Department at the University of Zimbabwe, carrying out a research on Teachers' skills, attitudes, perceptions and abilities towards the teaching of Vocational Technical Garment Construction Syllabus (VTGCS) in Chivi Rural Day Secondary Schools. The research project is part of the requirements for Bachelor of Education degree in Home Economics. To accomplish this, I will need your assistance. I therefore, kindly request you to complete this questionnaire. All the information collected will be treated with strict confidentiality and the responses will be used only for research purposes.

Thank you.

Demographic Data: Respond by ticking [✓] or filling in the blank spaces.

1. Gender: Male [ ] Female [ ]

2. Marital status:
   Married [ ]
   Single [ ]
   Divorced [ ]
   Widowed [ ]

3. Age range
   20-25 [ ]
   26-30 [ ]
   31-36 [ ]
   37-42 [ ]
   43 and above [ ]
5. Highest Professional Qualifications.
   Primary School Teacher
   Secondary School Teacher
   Certificate in Education
   Bachelor of Education
   Others, please state

PART II TEACHERS' ABILITIES

Please respond by ticking [✓] or filling in the blank spaces.

1. Where did you train as a vocational technical subject teacher?
   - Gweru Teacher's College
   - Belvedere Teacher's College
   - Mutare Teacher's College
   - Chinhoyi Teacher's College
   - Others, please state

2. What is your teaching experience as a vocational subject teacher at secondary level?
   - 0-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21 and above

3. What position do you hold at your school?
   - Ordinary teacher
   - Head of department
   - Head/Deputy head
   - Others, please state
4. Which subject did you specialize in at college?

5. Which subjects are you currently teaching at your school?

6. If you are teaching VTGCS, what are your challenges in the teaching of the subject?

7. At what level are you teaching VTGCS?

PART III ATTITUDES AND CONCERNS

Please tick [] or explain briefly where appropriate.

1. How much does it cost per student to take VTGCS subject?

2. Who decides on the cost?

3. Briefly explain the amount of funding with reference to Adequacy.

4. What is the average class size at your school?

5. How many periods per week are set aside for Garment Construction?

6. What are your observations on time allocation at your school?
7. Comment on your teaching load.

8. In the table below, indicate the adequacy of the following at your school:

<table>
<thead>
<tr>
<th></th>
<th>Very Adequate</th>
<th>Adequate</th>
<th>Inadequate</th>
<th>Very Inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Textbooks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Workrooms and Furniture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Industrial Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part IV: Skills Needed By Teachers
1. Briefly discuss your abilities as a VTGCS teacher.

2. Comment on and state the topics you are not confident with, in the VTGCS syllabus.

3. Briefly suggest what should be done to assist teachers to effectively implement the syllabus.
4. What are your thoughts on your school offering the VTGCS?

5. What do you think are the differences between VTGCS and Fashion and Fabrics? Explain briefly.

Thank you for your assistance.