



*International Journal of Development and Sustainability*

Online ISSN: 2168-8662 – [www.isdsnet.com/ijds](http://www.isdsnet.com/ijds)

Volume 2 Number 2 (2013): Pages 617-628

ISDS Article ID: IJDS13013004



Special Issue: Development and Sustainability in Africa – Part 2

# A consideration of education programs for gifted primary school pupils in Masvingo, Zimbabwe

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## Abstract

An exploratory study reported here sought to consider and obtain baseline information on educational programs for gifted pupils available in primary schools in the City of Masvingo, Zimbabwe. A sample of 40 regular class teachers, selected from 9 of the 13 primary schools completed questionnaires that sought to establish categories of giftedness and identification methods used in the schools. The teachers were then asked to nominate children they considered gifted who had received some educational program that could be deemed specific for gifted children. 198 pupils were selected from the different grades using this purposive sampling method. A questionnaire that sought information from children on the educational provisions available in the schools was administered. Teachers named children they considered gifted across all the categories. All methods of identification save achievement tests were found to be used in the schools. Nine forms of educational provision for gifted learners were identified from the children's responses. It is suggested that further research focusing on content and sequence of knowledge and skills being taught in the various gifted education provisions be carried out so as to answer questions of appropriateness.

**Keywords:** Gifted, Categories, Identification, Programs

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International Society for Development and Sustainability (ISDS)

**Cite this paper as:** Manyowa, A.F. and Ncube, M.V. (2013), "A consideration of education programs for gifted primary school pupils in Masvingo, Zimbabwe", *International Journal of Development and Sustainability*, Vol. 2 No. 2, pp. 617-628.

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## 1. Introduction

The Education for All declaration provides that “Every person, child, youth and adult shall be able to benefit from educational opportunities designed to meet their learning needs.” (World Declaration on Education for All 1990). This vision was reaffirmed by the World Education Forum of 2000. Zimbabwe adopted the principle of education for all in 1980. From 1980 up to 1990 educational reforms focused on access to education. There were significant increases in the number of schools and enrolment. Since 1990 relevance and the quality of education became the focus of reforms in education with content, technologies, teaching methods and skills provision becoming of increasing concern (Kapungu 2007).

However in spite of the concern with relevance and quality in education there is a curious silence pertaining to the education of gifted children. Policy Circular P36, the official instrument mandating educational provision for children with various exceptionalities, is silent on the education of the gifted. Perhaps we owe the reticence to a reluctance to deal with issues of definition. Johnsen (2006) has said the term ‘gifted and talented children’ refers to those “who *perform* or show the potential for performing at a remarkably high level of accomplishment when compared to those of the same age, experience or environment.” Hallahan and Kauffman (1997) note five areas of disagreement which indicate a struggle with the concept of giftedness. Differences in opinion on categories, measurement, and extent of giftedness along with questions to do with comparison groups and the purpose of identification have contributed to the disagreement. Blake (1981) remarks that categories of giftedness reflect cultural values.

Johnsen (2006) sees giftedness characteristically occurring in a diversity of areas including leadership, intellectual, academic, artistic and creative areas. Six main categories of giftedness are identified by Marland (1972). These categories are general intellectual ability, specific academic aptitude, creative thinking and production, leadership, psychomotor ability and visual and performing arts. Gardner and Hatch (1989) cited in Hallahan and Kauffman (1997) suggest that using children’s distinctive profiles of strengths and weaknesses seven categories of giftedness can be identified. These are logical-mathematical, linguistic, musical, visio-spatial, bodily-kinesthetic, interpersonal and intrapersonal. Marland’s (1972) categories were thought to be clear enough to allow communication during the investigation and therefore were used to inform the study reported here.

Six steps to identify gifted learners suggested by Renzulli and Reis (1991) indicate a reliance on instruments like Weschler Intelligence Scales For Children Revised, Bender Visual – Motor Gestalt Test, Wide Range Achievement Test and Picture Completion test. Marland (1972) reserved of the task of identifying gifted children to ‘professionally qualified persons’. This reservation is understandable as administration of the tests mentioned above is restricted to professionals with specific competencies. In the city of Masvingo, however this reliance may be impractical if not ill advised as, first, children attending school rarely consult an educational psychologist for IQ testing and second, issues of validity and norms for the Zimbabwe population have not been resolved in respect of the instruments. The authors are of the opinion that since the thirteen general characteristics, eleven learning characteristics and twelve creative characteristics as cited by the Hollingworth Centre for Highly Gifted Children (1985) are noticeable by the child, peers and teachers then the child, peers and teacher can usefully identify children as gifted.

The New Zealand Ministry of Education (2000) noted that identification of gifted and talented learners is a means to providing an appropriate differentiated educational program. Hallahan and Kauffman (1997) have suggested that differentiated educational programs help foster and nurture giftedness. In the United States of America P. L. 103-382, Title XIV requires that services not ordinarily provided by the school be made available for a child who is gifted with intellectual, creative, artistic, leadership or specific academic capacities. Gifted education programs are not only about advancing the particular gifts of the individual but also about meeting the emotional needs of the learner. Psychological challenges have been noted when gifted students are left to regular education. The challenges include problems of fitting in and playing down of giftedness (Wikipedia 2009). Hallahan and Kauffman (1997) have noted that children who are gifted run the risk of stigma, rejection, criticism and social isolation from other children. Difficulties with fitting in, playing down abilities, boredom and disruption may be minimized through the use of ability groups.

Gifted pupils may be advanced to higher level material through acceleration. Specific forms of acceleration are grade skipping, grade telescoping and early entrance. Townsend (1996) and Brody and Benbow (1987) observe that acceleration may involve the early introduction of content and skills or the quickening of the pace of delivery and exposure. In primary schools it seems possible to practice curriculum compaction, grade telescoping, subject acceleration or even grade skipping. Elkind (1988) has noted that children who are accelerated are academically challenged, complete school early and often transit to successful careers. Carton (2001) indicates an increase in academic achievement when students are accelerated. Kulik and Kulik (1984) report that accelerated students tend to perform better than those who are not accelerated. Kulik and Kulik (1984) reported gifted children's emotional and academic satisfaction with a challenging curriculum that provided the gifted children with options and allowed their input in design and implementation.

Curriculum enrichment involves the presentation of content with more depth, breath, complexity or abstractness than the general curriculum. Townsend (1996) sees this curriculum enrichment as being in response to the child's abilities and needs. For Clark (1988) enrichment often involves the addition of disciplines or areas of learning that are not normally found in the regular elementary or secondary curriculum. Blake (1981) notes that learners provided with the enriched curriculum are not placed in higher grades. The reader will recall Policy Circular P36 is silent on the education of gifted. Consequently, programs in schools in Masvingo may not carry the name Gifted and Talented Education Programs or Talented and Gifted Education Programs. Notwithstanding this, the study sought to determine those efforts in schools which might be construed as programs for gifted learners. The school efforts subject to this investigation would include acceleration, enrichment and ability grouping being employed in schools. We also wanted to establish how any children being served in these programs had been identified. To collect the data for the study two questionnaires were developed. One was for use with teachers and the other with pupils.

## **2. Research Instruments**

Both pupils' and teachers' questionnaires had sections A and B. Section A on the teachers' questionnaires required the respondent's gender, age and highest professional qualification. On the pupils questionnaire

Section A required gender, age and present grade. Section B of the teacher's questionnaire required respondents to name pupils from the grades they taught who possessed given characteristics. The characteristics given on the questionnaire were extracted from the lists given by Johnsen (2006). The characteristics were so arranged that those for one category were found together. The teachers were further required to identify forms of gifted education provision which were available to the pupil nominated. There was no limit set on the forms of provision which could be mentioned for a child. Lastly from a given list of identification methods teachers had to indicate how the gifted pupil had been identified.

On the pupils' questionnaire descriptors of the different forms of gifted education provision were given. The nominated pupils had to place checks against those descriptors which were about a provision they had experienced. With regard to grouping children were required to place a check against the description that best described the type of group that was used in their classes or that was used when the pupils were engaging in any of the specified forms of gifted education provision. Four methods of acceleration were included in section B of the pupils' questionnaire. The four methods covered in the questionnaire were acceleration in one or more subject areas, grade skipping, taking classes with older children and early entry.

Five ways in which curriculum enrichment may be practiced at primary schools were incorporated into the children's questionnaire. These included receiving instruction from a teacher (other than the child's class teacher) who is an expert in area of giftedness, withdrawal for enriched instruction, part time special class placement, resource room placement and school initiated contact with a person similarly gifted for instructional purposes. To pilot test the research instruments three final year students at Great Zimbabwe University, themselves qualified primary school teachers from schools in the city of Masvingo, each with teaching experience exceeding five years were asked to fill in the teachers' questionnaire. The same students were asked to review the pupils' questionnaire and then asked to make comments on comprehensibility of the research instruments. It was recommended that the pupils' questionnaire be translated into the vernacular Shona. The students' comments were used in the final copies of the instruments. The three students approved the final questionnaire.

Apart from yielding data that would be of interest to the researchers it was thought that participation in the study would help focus teachers minds on the phenomenon of providing appropriate gifted education opportunities for gifted children. It was hoped that participation would increase teachers' awareness of the variety, flexibility and choice available in the provision of educational programs that would meet the needs of gifted learners. If participation in the study successfully managed to provide the envisaged benefits for the teachers then gifted learners whom they teach would benefit from appropriate differentiation, enrichment and acceleration programs.

The study was restricted to Masvingo urban primary schools. Primary schools in Masvingo City are P1 and P2 schools. P1 and P2 schools are both urban schools with P1 schools often found in low density residential areas and P2 in the high density residential areas. This codification used by the Ministry of Education Sport and Culture refers to the resources which are available at a school and to some extent to the fees which may be charged by the school. P1 schools are better resourced than P2 schools which themselves are better resourced and may charge higher fees than rural P3 schools. There are thirteen of these schools in Masvingo.

Of the thirteen three are P1 and the rest are P2. It was not the intention to make generalizations to any school outside Masvingo City for to do so would have been to assume a consideration of variables which was not made in the present study.

### **3. Method**

The population in the study comprised classroom teachers and pupils at the thirteen schools in Masvingo City. There were three hundred and forty two (342) classroom teachers in the schools. Of these two hundred and eighty nine were female (84.5 %) and fifty three (15.5 %) male. The thirteen schools had a combined enrolment of ten thousand nine hundred and ninety seven (10 997) pupils. Of the pupils five thousand nine hundred and ninety nine (54.55%) were girls and four thousand nine hundred and ninety seven (45.55 %) were boys. The pupils were enrolled from grade one through to grade seven inclusive.

Permission to conduct the study having been obtained from the Education Officer, Policy and Research Division and from the Ministry of Education, Sport and Culture Provincial Directorate names of the thirteen urban schools were obtained from the Provincial Educational Psychologist and put in a box. The first nine picked out were listed for inclusion in the study. The school heads consent for conducting the study was obtained on Friday before the Monday or Tuesday when the questionnaires were distributed.

School staff lists comprising names of classroom teachers currently at the school were obtained on the same Friday from the heads of schools. The school lists were then arranged alphabetically (according to name of school). For reasons of practicality it was decided to have forty (40) classroom teachers participating. Notwithstanding the female to male classroom teacher ratio in the nine schools it was further decided to have thirty female teachers and ten male teachers participating. Names of teachers were arranged according to sex and grade taught. Systematic random sampling was carried out. Starting with the seventh name on the first school list, going through all the school lists every ninth name of female teacher was picked for inclusion in the sample. This was done until the thirty names of participating female teachers had been obtained. The male component of the sample was obtained similarly employing systematic random sampling. With the school lists once again arranged alphabetically every fifth name of male teacher was picked for inclusion in the sample starting with the second name of male classroom teacher on the first class list.

Questionnaires for the first seven schools were left with the heads of schools on a Monday with the remaining two being dropped off on the following Tuesday. The distribution and collection schedule that was used is given below in Table 1. The Heads of schools were asked to explain to the teachers that the study was only for academic purposes. With this explanation the teachers were asked to give their consent to participate in the study. The heads of schools were asked not to replace any teacher who declined. No teacher declined. Participating teachers were allowed to take away their questionnaires and to bring them back when completed at a time to be agreed with the head of the school.

Upon completion and bringing of the questionnaire to the head the teachers were each given pupils' questionnaires equal to the pupils they mentioned in their responses. The teachers were to administer the questionnaires to the pupils as they got time. The teachers in grades one and two were told that child participants who were in the infant grades could be assisted to complete the questionnaire. One hundred and six female students and ninety two male students were nominated by the teachers. All questionnaires were returned completed. Table 1 below gives the questionnaire distribution and collection schedule. On average questionnaires were returned three days after distribution. The earliest returns were made on the same day. The latest were returned seven days after distribution following a telephoned reminder. There were two modal periods for returns which were two and three days.

**Table 1.** Questionnaire distribution and collection schedule

School	School classification	Participating teachers from grades	Distribution Day	Collection Day
A	P1	1, 3, 5, and 7	Monday (M)	Thursday (M+3days)
B	P1	2, 4, 6, and 7	Monday (M)	Wednesday (M+2days)
C	P1	1, 3, 4, 5, and 6	Monday (M)	Monday (M+7days)
D	P2	2, 4, 5 and 6	Monday (M)	Friday (M+4days)
E	P2	2, 3, 4, 5 and 6	Monday (M)	Monday (M+0days)
F	P2	1, 3, 4, 6 and 7	Monday (M)	Wednesday (M+2days)
G	P2	1, 2, , 4, 5 and 6	Tuesday (T)	Friday (T+3days)
H	P2	1, 3, 5, 6, and 7	Tuesday (T)	Friday (T+3days)
I	P2	2, 3 and 5	Monday (M)	Wednesday (M+2days)

#### 4. Results

Table 2a below gives the background information for classroom teachers who participated in the study. There were more teachers aged more than thirty than there were below. Three times as many teachers did not have degrees than had. Of those who had degrees only one had a post graduate qualification. The modal qualification was Diploma in Education.

**Table 2a.** Biodata for classroom teachers

Age	20 -25		26 -30		31 -36		37 -40		40+		TOTAL
Sex	M	F	M	F	M	F	M	F	M	F	
Qualification											
Certificate in Education	0	0	0	0	0	1	1	0	1	4	7
Diploma in Education	0	0	0	5	2	5	3	4	1	3	23
Bachelor of Education Degree	1	1	0	0	0	2	1	2	0	2	9
Master of Education Degree	0	0	0	0	0	0	0	1	0	0	1
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>8</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>9</b>	<b>40</b>

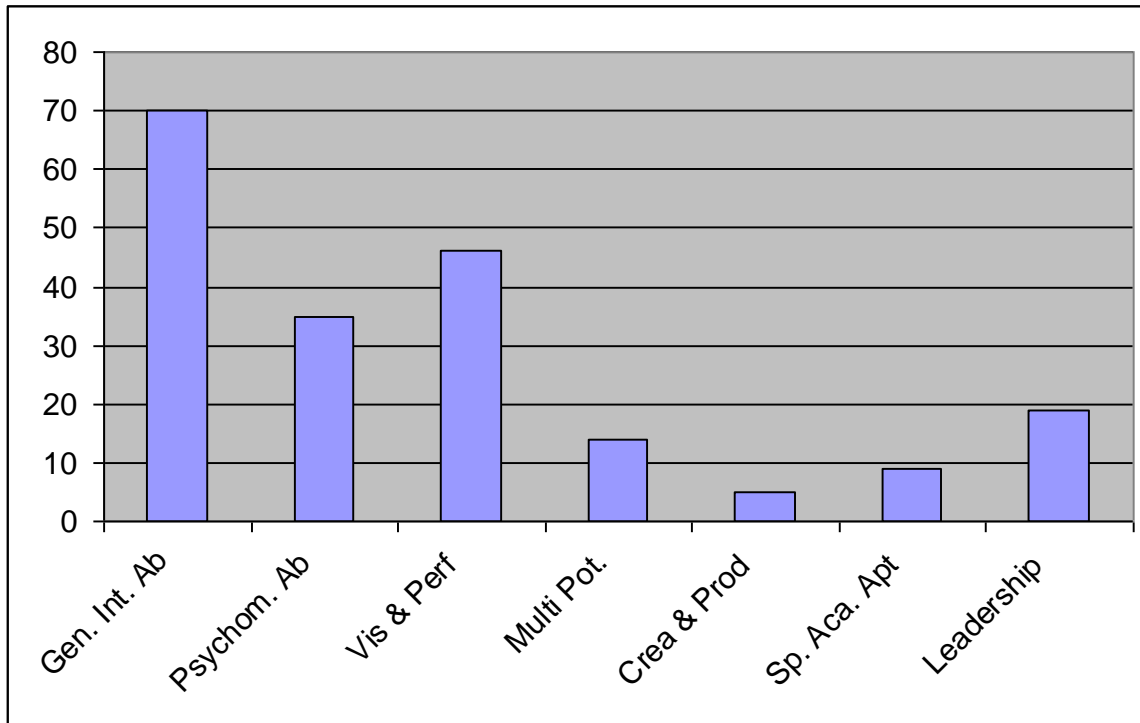
Table 2b below gives the background information for children who were nominated to the sample. Nominations of children within grades were made from across two years for grades three to up to five years for grades five. When the number of teachers participating from a grade and the number of children nominated to the sample by the teachers from that grade were tested for correlation using Pearson's product moment correlation a result of 0.1602554 was returned indicating a weak but positive relationship. More girls were nominated to the sample than boys but there was no significant sex difference found as an F-test computation of nominations made in the different age groups returned a result of 0.513050682.

**Table 2b.** Biodata of children nominated to sample

Age	5		6		7		8		9		10		11		12		13		14		TOTAL
Sex	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	F	
Grade																					
1	1	6	3		2	1															13
2			1	3	2	1	1														8
3						8	5	3	3												19
4								7	11	5	5	1		1							30
5								3	2	6	17	6	4	1	2	2					43
6											2	1	1	7	4	1	2				36
7												3	4	13	21	2	5		1		49
<b>TOTAL</b>	<b>1</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>10</b>	<b>6</b>	<b>13</b>	<b>16</b>	<b>11</b>	<b>24</b>	<b>20</b>	<b>18</b>	<b>22</b>	<b>27</b>	<b>5</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>198</b>

As is shown in figure 1 below most children were nominated to general intellectual abilities category. The least nominations were to the creative and productive thinking category. The 'nonacademic' categories psychomotor abilities and visual and performing arts ranked second and third respectively.

**Figure 1.** Number Of Children Nominated To Different Categories By Teachers.



**Key to Abbreviated Categories.**

- Gen. Int. Ab*            *General Intellectual Abilities*
- Psychom Ab*            *Psychomotor Abilities*
- Vis & Perf*            *Visual and Performing Arts.*
- Multi Pot*            *Multipotentiality*
- Crea and Prod*        *Creative and Productive Thinking*
- Sp. Aca. Apt*        *Specific Academic Aptitude*
- Leadership*            *Leadership Abilities*

The number of children indicating experience of specific gifted educated plans is shown in Table 3. The strategies given in the table had been specified by teachers. One notices that while in ability grouping has prominence grade skipping and flexible pacing were the least used program options. Between 20 and 43 children experienced each of the other forms of provision for gifted pupils. An addition of the numbers of children reporting experiences gives a sum more than the pupils in the sample. This results from the fact that some children experienced more than one provision.

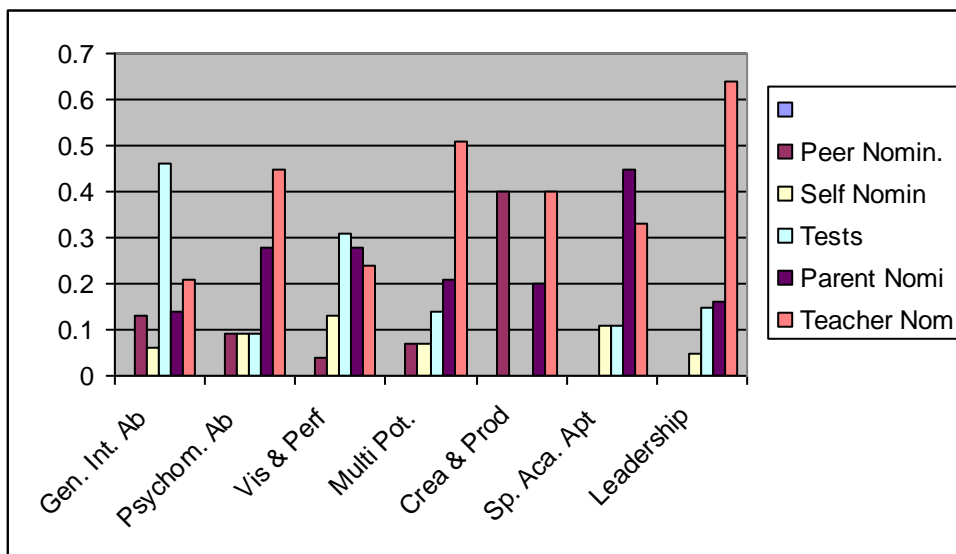


**Table 3.** Number of Children Admitting Experiencing Specific Gifted Education Strategies

GIFTED EDUCATION STRATAGEM AS NAMED BY TEACHERS	PUPILS INDICATING EXPERIENCE
Grade skipping	2
Subject acceleration	27
Early entry	20
Flexible pacing	2
special class	30
Independent learning centre	38
Pull out program	43
Mentorship	23
In class ability grouping	123

Figure 2 compares the nomination methods used within the different categories. The nomination methods are compared within categories and not across. Three methods of identifying gifted learners within the categories are teacher nomination, tests and parental nomination. Save for three categories, creative thinking and production, specific academic aptitude and leadership, all five methods were used.

**Figure 2.** Comparison of Use of Identification Methods in Different Categories As Reported By Teachers



**5. Discussion**

Renzulli and Reis (1991b) give second place prominence to teacher nomination when they outline their suggested six step identification procedure for identifying gifted students. Recognizing this critical position occupied by the teacher one notes with concern the weak though positive relationship between the number

of teachers nominating and the number of pupils nominated which suggests that some teachers were nominating much more or fewer than others. A stronger positive relationship would have suggested an even spread of nominations across the grades indicating a shared understanding of giftedness in children.

The age range within class groups raises a concern with regard to identification of gifted children. It will be recalled that Johnsen (2004) suggests that giftedness is identifiable when a child's performances are compared to children of the same age, experience and environment. Age disparities within classes may influence the teacher's nominations. Perhaps suggesting an age interval to be used would obviate the problem if the additional condition would not make the task too cumbersome for the nominating teachers.

Nominations across all the given categories are consistent with Johnsen's (2004) observation that giftedness occurs in a diversity of areas. The category general intellectual abilities had the most children nominated to it. Spearman (1923) specified this category a 'g'. Cattell (1963) divided the category 'g' into inherited and acquired abilities and gave those acquired through learning as including mathematics, vocabulary and comprehension. Gagne's (1995, 1999) suggestion that gifts are natural but that they can be developed into talents through learning, training and practice makes it imperative that children be provided with educational opportunities that meet their needs.

Within the categories the identification method reported as most used was teacher nomination. One notes high use of this method within the categories. The prominence of this method suggests that teachers be informed of the characteristics of gifted learners either during preservice training or during staff development training. Lowest use of teacher nomination as an identification method was in the general intellectual abilities category. Test scores were reportedly used most to identify pupils with general intellectual abilities. The highest number of pupils was in this category. Within the category specific academic aptitude test scores were also reported as used relatively highly albeit for the small number of children in the category. A rather low reliance on test scores is noted in the other categories. Test scores were not used to identify children with creative and productive thinking abilities. An unexpected result was the use of test scores to nominate children to the visual and performing arts category.

Apart from being useful in the identification of pupils who are gifted tests are also useful in curriculum compacting. Curriculum compacting requires that mastered material and skills be identified for exclusion from work a child is to be given. An appropriate level of understanding and competency with test administration and interpretation is required of the teacher. This perhaps suggests the importance of including tests and test administration as an area to be covered in teacher preparation. One would need to review the course content for the Diploma and Certificate in Education with this in mind.

Teachers reported that self nomination was used by students to identify themselves to the visual and performing arts and specific academic abilities categories. The identification method was not used to identify those with creative and productive thinking abilities. For creative and productive thinking abilities peer nomination was mentioned most. Parental nomination was reported to be most prominently used in the case of specific academic aptitude category. Interestingly only eight pupils were nominated to this category.

Educational provisions reported by the children strongly favor in class ability grouping. Pupils in ability groups are likely to benefit if they receive accelerated instruction in the group. There is a need, however to

further inquire into the quality of work that pupils are given in the ability groups. Placement into a homogeneous high ability group may have more to do with classroom management issues than with meeting the academic and social needs of the child in a way that results in improved achievement and attitude towards school.

Twenty three children admitted to having been mentored. The mentorship program reported by the pupils was being run by the Zimbabwe Cricket Union's Talent Identification program. Typical of mentorship programs, the pupils received out of school experiences exceeding those provided by the school. The mentorship program provided an opportunity for the pupils to observe and model the behavior and attitude of their mentors. Only 1% of the children reported having been grade skipped. The minimal use of grade skipping may be explained as indicating a fear resulting from the hierarchical nature of the primary school syllabus. It may be feared that concepts missed through grade skipping may result in difficulties when the child attends subsequent grades. There may also be concern for the social problems likely to be faced by a quick child who joins a class of older children.

The study reported here has indicated that in primary schools in the city of Masvingo there are pupils who are have been identified as gifted through various acceptable ways. The pupils are spread throughout the different categories of giftedness. The pupils are receiving instruction that may be construed as appropriate for the gifted. Questions which have not been answered include those to do the appropriateness of content and sequence of knowledge and skills which the pupils are being taught in the various educational plans. Further inquiry could provide answers to these questions.

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