Identification and Remediation of Factors Causing Underachievement of Students’ Performance in Senior School Certificate (SSC) Biology

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ABSTRACT

At the secondary school levels in Western Countries Particularly, some students drop out of school because they are labeled and categorized as underachievers, despite the fact that teachers sometimes fail to establish whether such students though underachieve in a particular subject such as Biology but can achieve in others. However, opinions are divided among educationists regarding the definition and causes of underachievement. The study addresses some contemporary issues associated with underachievement. The rationale for the study is to identify the group of learners referred to as underachievers and to find out if their condition can be impaired with the help of teachers, psychologists and parents. Categorizing underachievers into different types can have an impact in proffering solution, especially in the case of the so-called gifted underachievers. The question of whether or not underachieving learners can still learn is answered in affirmative after consulting the literature on counseling and motivation.

Key words: Students’ performance, Underachiever, Secondary School, Senior School Certificate.

INTRODUCTION

Underachievement can be defined as the inability or failure to perform appropriately for one’s age or talents, in other words, unfulfilled potential (Barbara, 2005). According to this definition of underachievement, it can clearly be extremely hard to identify underachievers and to note when underachievement is taking place.

A better approach to identifying underachievement is to employ a wider and more varied mix of methods. These should include multiple criteria including teachers’ own judgement, especially if staffs have received training in assessing and identifying students’ abilities. However educationists have found it difficult to proffer a universal definition of underachievement which has persisted over the years. Klinge (1997) posited that defining the characteristics of the child who is labeled as an underachiever has been a difficult task for psychologists and educators for a considerable time. Barbara (2005) contended that despite all the assessment tools available to today’s educators and maintaining of existing research, a straightforward definition of underachievement is not available. Whitmore (1980) and Colangelo (1982) believed that many definitions of underachievement underscore the gap between potential (ability) and performance (achievement). In other words, the ability to maximize potentials has been a common denominator in these definitions.

Sousa (2002) observed that underachievement is a behaviour and not an attitude or set of work habits. Behaviour changes overtime and can be more directly modified as opposed to attitude.

Delisle and Berger (1992) posited that underachievement is content and situation specific; those who may not be successful at school, for example are often successful in outside activities such as sports, music or after school jobs.

Who are Underachievers?

Different researchers may use different measures to determine who is an underachiever.

Gallagher (1985) pointed out the danger of using intelligence test for some gifted students who are labeled underachievers because of their poor academic performance, because less is known about their intellectual functioning.

Underachievers are sets of students who do not perform according to expectation in a particular subject area or who as a result of behaviour do not show interest or do not do well in their studies.

Other definitions of underachievers include that they do not perform well in a specific subject area, they have the necessary intellectual ability but still underachieve or may be limited by culture, language and gender from doing well academically at school (Klinge, 1997).
Labelling a student as an underachiever ignores the positive outcome of those areas in which the student does succeed, it therefore makes more sense to label the area of underachievement, not the student. For example, a student may be underachieving in mathematics but perform well in History. Underachievement is tied to the self-concept which can become a self-fulfilling prophecy. If students see themselves as failure, they may eventually place self imposed limits on what is possible. Ability and performance are not static but are in constant flux and can change overtime. Students’ performance varied at different times, and could be better depending on the degree of preparation before examinations. The failure to perform to the optimum could be attributed to factors external to the student’s intellectual and cognitive ability such as emotional problems.

Types of Underachievers

Educationists and psychologists acknowledge the fact that separating underachieving students and those with special educational needs into different categories could enable in-depth knowledge and understanding of their circumstances (Smith, 2005).

Mandel and Marcus (1988) identified six major types of underachievers described as follows:-

i. Anxious Underachievers: They may have problems at any age and tend to show performance deficit of 10-20%. They tend to unable to relax, avoid school, excessively worried and are unrealistic about their competence and mistakes. They therefore need constant reassurance and approval.

ii. Defiant underachievers: They are more often boys than girls before adolescence.

iii Wheeler-dealer underachievers: They may be impulsive, charming (Mandel and Marcus, 1988). They tend to live for the moment and for immediate rewards like cheating or stealing.

iv. Sad or depressed underachievers: They have low self-esteem, find it difficult to make decisions and lack the energy to concentrate on school work

v. coasting underachievers:- They are believed to emerge at about 9-10 years.

vi. Identity search underachievers: are so wrapped up in trying to work out who they are, they become distracted form their work.

Marcus (2007) listed out the characteristics of underachievers as follows:

i. Worried and anxious
ii. Acting and manipulative
iii. Easy going
iv. Lazy and unmotivated
v. Oppositional and introspective

Sousa (2003) observed that a combination of factors both in the home and at school can cause underachievement. Two important reasons for students’ achievement in any academic area can be identified as:-

i. Their inadequate learning on how to select, adopt and monitor strategies for learning.
ii. Their insufficient motivation to apply actively the understanding they have (Ryan, 1989).

Adequate attention should be given to reading and writing when the issue of underachievement arise especially in countries such as Nigeria where English is a second language. If pupils do not learn how to read effectively early on in school, they may have difficulty at later stage and may withdraw from learning rather than the risk of being exposed to shame.

The following factors can cause underachievement of students in SSC Biology. They are:

i. Lack of motivation
ii. Parental or home influence
iii. Lack of nurturing intellectual potential
iv. Conflict of values
v. Disabilities or poor health condition
vi. Life experience of specific groups of learners such as brain damage or cerebral dis-function or neurological impairment.

vii. Lack of interest by the student
viii. Inability to recruit and also retain highly qualified teachers or personal in schools.
ix. Lack of required laboratory facilities that can enhance effective teaching and learning of biology in schools.
x. Abstract learning and teaching of Biology by teachers in the schools.
xi. Negative self-concepts
xii. Emotional disorder
xiii. Culture and gender

Remediation to Underachievement in Senior School Certificate Biology

According to Dehsle and Berger (1992), the following are some strategies that can reverse the underachievement in Biology:-

i. **Supportive Strategies**: These are classroom techniques that allow students to feel they are part of a family and these include methods such as holding class meetings to discuss students’ opinion, designing curriculum that is activity based on the needs and interests of the students. Students can also be allowed to by pass assignment on aspects or topics in which they have shown previous competency.

ii. **Intrinsic Strategies**: These strategies incorporate the idea that students’ self-concept as learners are tied closely to their desire to achieve academically. Thus a classroom that invites positive attitudes is likely to encourage achievement in Biology. In this case, teachers encourage attempts, not just success; they value students’ input in creating classroom rules and responsibilities; and they allow students to evaluate their own work before receiving a grade from the teacher.

iii. **Remedial Strategies**: In this case, teachers who are effective in reversing underachieving behaviours recognize that students are not perfect and that each student has specific strengths and weakness as well as social, emotional and intellectual needs with remedial strategies, students are given chance to excel in their opportunities and are provided in specific areas of learning deficiencies. This remediation is done in a safe environment in which mistakes are considered to be part of learning for everyone, including the teacher (Delisle, 1990).

All of the above strategies are based on getting the students motivated. A student could be intrinsically motivated or extrinsically motivated. Teachers can set up conducive classroom to encourage this motivation. The students’ experience should be caring, supportive and have a sense of belonging. If the students have experience such as these, they will participate in the process of learning Biology.

Dowdall and Colangelo (1982) and Butler-Por (1987) suggested two different types of interventions using counselling and instructional materials, which they believed to offer rich possibilities in changing personality and behaviour for example, instead of forcing gifted underachievers to be successful, counseling interventions can help them to make decisions on goals and to unlearn habits that have been disruptive to learn Biology.

Blenler (1987) found that teachers’ and counsellors’ descriptions of underachievers and their behaviour suggested that they conduct a kind of cost-benefit analysis. It is evident that the cost of achieving includes alienation from friends who are non-achievers, while the benefits may include impressing friends, gaining the teacher’s and parent’s approval and achieving higher grade points. Moreover, underachievement usually involves frustration of persons in their lives and general low self-esteem.

Fine and Pitts (1980) devised some useful guidelines for planning and implementing successful intervention programmes:

i. Initially develop a structure to support the child
ii. Issues, expectations and intervention plans need to be clearly outlined.
iii. Appoint one person to be in charge of the intervention plan.
iv. Involve the family in a close working relationship with the school.
v. Group meetings should parallel family intervention
vi. Parents and teachers should establish a strong parental relationship positive to learning
vii. Use follow-up conferences with the same people to maintain accountability.
viii. Expect and confront sabotage

However, through successful intervention, overtime the students can be invited to be more active as problems and behavioural issue are resolved (Barbara, 2005). He maintained that every individual has the potential for doing well if favourable conditions are provided, teachers can make use of the following approaches.
1. Teachers should act as facilitators whose duty is to create an environment that is conducive for learning and engagement.
2. Teachers should not put up a professional or personal façade when dealing with underachieving students in Biology.
3. Teachers also need to empathize with the students.
4. Teachers should engage their students with tasks.

CONCLUSION

It is understandable that there is hope for underachieving students in Biology through the above listed interventions and remediation. It however requires the concerted efforts of the stakeholders, involved with underachieving learners that is the students, teachers, peer groups, counselors and parents.

It is concluded that the process of defining underachievement, explaining underachievement and suggesting appropriate interventions remain controversial issues. Also a lot of students believe that Biology is a wide subject and cannot be covered in the curriculum. This is one of the major causes of underachievement of students in senior secondary school certificate. To facilitate the development of students’ achievement in Biology views of knowledge, students need to be supported at the appropriate level and time.

RECOMMENDATION

The following recommendations are provided in this study:

- There should be room for recruitment and retention of highly qualified Biology teachers in schools who can make meaningful impacts into the lives of students particularly the underachievers.
- Enough relevant textbooks should be provided by the government to school libraries on Biology.
- Parents should try as much as possible to buy textbooks for their children and provide conducive study room for reading.
- Time allocation should be looked into and reviewed. There should be periods for biology practical so that students can have practical orientations on Biology to make theoretical learning more meaningful.
- Biology laboratory should be provided in schools with essential laboratory equipments inside it and must be within the reach of students.
- Ecological field trips should be organized and teachers should be encouraged to participate so as to broaden their knowledge.
- Also teachers’ remuneration should be encouraging and paid promptly to avoid discouragements on the parts of the teachers.
- Finally underachievers should be encouraged and motivated to develop positive attitudes towards learning, especially Biology.

REFERENCES

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