

The Roles of Counselling Psychologists toward the Improvement of Intellectual Functioning of Secondary School Students

Dr. Jonathan N. Onukwufor
Department of Educational Psychology Guidance and Counselling
University of Port Harcourt Rivers state, Nigeria
E-mail: onukwuforjonathan@yahoo.com

Abstract

The paper examined the role of counselling psychologists towards the improvement of intellectual functioning of secondary school students. Academic underachievement both in internal and external examination conducted by West African Examination Council (WAEC) and National Examination Council (NECO) were seen as indications of low intellectual functioning. Also a situation where certificate holders are unable to defend such certificates in various spheres of human endeavour where such intellectual prowess are required, was also seen as indication of low intellectual functioning. The highlighted roles which counselling psychologists could play to improve intellectual functioning include: to counsel students on how to focus attention on the study-material when studying, apply stipulated principles of learning to guide the students, to adopt PQ4R method of reading which enhances recall, and application of memory improvement techniques to ensure long term retention of information. Some recommendations were made, among which was that all stakeholders in education should encourage increase in students reading culture. It was also recommended that the JSS and SSS levels of secondary education should have at least two counselling psychologists each. Participation in lumosity training and consumption of brain boosting food were also recommended.

Key Words: Counselling psychologist, intellectual functioning, lumosity training, learning, rehearsal, brain boosting food.

1. Introduction

In recent times, there has been general lamentation by all the stake holders in education concerning secondary school students' poor academic achievement at public examinations conducted by the West African Examination Council (WAEC) and the National Examination Council (NECO). The appalling situation caused Eze (2011) to lament that: with failure figures on the rise at both WAEC and NECO examinations tempers rose from every angle. Stake holders became jittery, and so were parents who paid through their nose to register their wards. The result released by NECO that warranted the discontentment was that of the 2009 in which less than 25% of the candidates obtained credit level and above in English and Mathematics. In the same year 2009 the analysis of WAEC result showed that only 25.99% of the candidates obtained credit and above in English and Mathematics while that of 2008 was 23.5%. Poor academic achievement as stipulated above are indicative of poor intellectual functioning.

Also, a situation where certificate holders cannot successfully defend certificates through their inability to display commensurate intellectual prowess in various spheres of human endeavour where such feats are required, is an indication of poor intellectual functioning. Poor intellectual functioning can be remedied by counselling psychologist through academic counselling. Academic counselling is provided to students who are experiencing difficulties with their studies. Thus meeting with a counselor can assist students to identify their areas of difficulty and develop strategies to improve their academic performance (Academic success centre n.d). In their study, Whitson and Sexton (1998) found that services of school counsellors have a positive effect on children. In a study conducted by Wallace (2012) 81% of the students exposed to counselling services reported that they considered counselling to have helped them stay in the university or college; while 79% of the same respondents considered counselling to have helped them do better in their academic work. A study on the effects of counselling on classroom performance found that the underachieving students' who received counselling improved significantly on the self rating scale of classroom behavior and in mathematics and language art grades (Gerter Kinney & Anderson 1985). Also a research conducted in Gwinnett county Georgia U.S.A. shows that counselors impact students' academic performance and can increase the on task, productive behavior of students and reduce disruptive behaviours (Watts & Thomas cited in California Department of Education 2013). This write up is therefore concerned with the role the counselling psychologist could play to improve intellectual functioning of secondary school students.

2. Concepts of Counselling Psychology and Counselling Psychologist

According to Colman (2003:172) "Counselling psychology is a branch of applied psychology concerned with the application of psychological principles to counselling. Implicit in the above definition is that counselling

psychology is an aspect of psychology concerned with assisting people to resolve their problems. Nwankwo (2010:23) also saw counselling psychology as follows: "Counselling psychology as a psychological discipline, is concerned with helping normal people resolve problems which constitute obstacles to their development and progress" Nwankwo further expatiated that counselling psychologists do not deal with problems classified as mental illness or psychological disorder rather, they deal with situational problems which when solved will improve and enhance functioning efficiency of individuals in the particular life endeavour. The normal people's problems which the counselling psychologists may be concerned with include educational, vocational and personal/social problems. When these problems have been resolved through the assistance of counselling psychologists, then there will be improvement in the intellectual functioning of the students affected.

For the avoidance of doubt, counselling psychology is a relatively new name for guidance and counselling. In this regard Nwankwo (2010:23) stated that by 1953, the division 17 of American Psychological Association (APA) known as Counselling and guidance was renamed counselling psychology. Apparently, since the inception of guidance and counselling in 1908 when Frank Parson the founder of Guidance and counselling established the first ever vocational Bureau in Boston U.S.A to provide vocational assistance to young people and train school teachers who would serve as vocational counsellors in various institutions, it was known and addressed as guidance and counselling until 1953 when it was changed to counselling psychology. Counselling psychologist is a specially trained person who applies psychological principles in solving "normal" people's problems. The counselling psychologist is the same as the guidance counselor.

2.1 Concept of Intellectual Functioning

Crowther (1995) defined intellect as the power of the mind to think in a logical manner and acquire knowledge. According to Crowther, intellectual as a noun means a person with highly developed mental ability. While intellectual as an adjective means appealing to, needing or using somebody's power of reasoning or desire for knowledge. Improvement of intellectual functioning therefore means to increase the power of the mind to think in a logical manner and to acquire knowledge. Improvement in the ability of the mind to think logically and to acquire new knowledge which amounts to change in behaviour is called learning. Thus improvement in learning enhances intellectual functioning.

2.2 Definition of Learning

Learning has been defined in various ways by different scholars. Passer and Smith (2004:198) defined learning as follows: "learning is a process by which experience produces relatively enduring change in an organisms behaviour or capabilities" Experiences in this regard refers to what the individual encountered either in the classroom or outside the classroom. Change in behaviour refers to change in performance after the experience. Kimble and Garnezy, cited in Kemjika (2006:3) defined learning as a "relatively permanent change in behavioural tendency and is the result of reinforced practice". Based on the above definition, the cause of learning is reinforced practice. Learning is a relatively permanent change in behavioural tendency. Klein (1991) cited by Onukwufor in Dike and Aminigo (2010:289) defined learning as follows: "Learning is a relatively permanent change in the ability to exhibit a specific behaviour that occurs as a result of experience".

3. Roles of Counselling Psychologists towards the Improvement of Intellectual Functioning of Students

The indispensable roles which counselling psychologists could play towards the improvement of intellectual functioning in secondary school students is mainly through a type of counselling known as Educational/Academic Counselling. According to Onyekuru (2010:12) "Educational counselling comes to play when students are not pleased or satisfied with their academic or educational performance, for example, when you are not getting the grades that you know you are capable of getting" when students academic achievement are below their intellectual capability, the situation is tantamount to academic underachievement. It is at this juncture when a student has realized that he is performing below his intellectual potential that the counselling psychologist steps in to assist in the improvement of the students intellectual functioning. Thus Onywukuru (2010:13) further observed that academic counselling sessions enable students strengthen their study skills, learn time management, stress-management or risk taking management. When students adjust positively to the stated factors, it may contribute to the improvement of their intellectual functioning.

The school counselling psychologist could assist the secondary school students to improve in their intellectual functioning by counselling them to adopt the following measures

3.1 Focus Attention on the Study Material

Idiong in Unachukwu and Igborgbor (Eds) (1991:395) identified the following approaches to effective study method.

1. Once the learner has decided to study a particular chapter or academic material he should focus his attention on the study and eliminate all forms of distractions.

2. The learner should remove all magazines, novels or newspapers around him, he should turn off the television, radio, and ignore all forms of conversation and games around.
3. The student should avoid getting into absurd and amusing talk or gossip with friends.
4. Ignore all irrelevant stimuli
5. The student should avoid holding a book and be staring at it from one page to the other.
6. The student should avoid day dreaming about some unrelated activities, because it is a way of avoiding the task at hand.
7. The student should learn how to monitor his reading and thinking. The learner should monitor his thought while reading to ensure that he has not wondered off and redirect his attention to the materials that must be studied.
8. The student should note that failure to focus attention on the study materials may lead to hours of wasted effort in which they neither engaged in effective study nor use the time for recreation or other useful activities.

3.2 Principles of Learning

In order to enhance intellectual functioning, the counselling psychologist could as well guide the students to make use of the following principles of learning as identified by Garrison et al. (1964:215) cited in Kemjika (2006).

1. Students should study with the intention to remember. Such an intention creates a mental set that facilitates recall.
2. Reading or studying materials should be meaningfully organized. Study the general arrangement of the materials, bearing this plan in mind and try to relate the details to major ideas.
3. The purpose of any study should be clearly stated. With the defined purpose in mind, attention should be focused on whatever means to realize it.
4. The students should be very active while studying. Bear in mind the principles of personal efficiency in studying (effective study is a key to success), make notes in your own words as you will find it easy to remember.
5. Develop a study time table: Make your study room as comfortable as you would like, avoiding all unnecessary distractions in the surrounding. Do not procrastinate, go into study immediately. When you are tired, feeling sleepy or drowsy go for break. As soon as you notice that your attention or concentration is no longer focused in the study, go for break also. It pays if you have enough siester after the day's job, if you hope to read in the night.
6. Avoid the use of stimulants to keep awake as it has its own side effects on your health.
7. Generate self – assessment questions and try to answer them. Practice using your reading and study materials in new situations, this aids transfer. Try to visualize practical examples which represent concrete forms of theory you have studied.

3.3 Guidelines for Reading a text book

The counselling psychologists should as well counsel students on the guideline for reading. The first guideline as highlighted by Herrmann & Searleman (1992) is that the learner should make sure he understands what he is reading. The second is the use of PQ4R method propounded by Thomas & Robinson (1972). The PQ4R method of reading has been acclaimed by various scholars as strategies for remembering text book material. (Anderson, 1990; Chastain & Thurber, 1989)

PQ4R

The PQ4R is an acronym which stands for six activities to engage in when you read a chapter. They are as follows: P = Preview, Q = Question, 1st R = read, 2nd R = reflect, 3rd R = recite, 4th R = review.

- (1) **Preview:** Take a few minutes to skim the chapter. Look at the section headings and any boldfaced or italicized terms. Get a general idea of what material will be discussed, the way it is organized, and how its topics relate to one another and to what you already know.
- (2) **Question:** Before reading each section, ask yourself what content will be covered and what information you should be getting from it.
- (3) **Read:** Now read the text, but think about the material as you read. Are you understanding the material? Are the questions you raised earlier being answered?
- (4) **Reflect:** As you read, think of your own examples and create visual images of the concepts and phenomena you encounter ask yourself what the material means, and consider how each section relates to other sections in the chapter.
- (5) **Recite:** At the end of each section, recite the major points. Resist the temptation to be passive and say "oh I will remember that" be active. Put the ideas into your own words by reciting them aloud.

- (6) **Review:** Finally, at the end of the chapter, review all the materials. You should see connections not only within each section but also among sections. The objective is to see how the material is organized. Once you grasp the organization, the individual facts will be far easier to remember.

By following these procedures, you will learn and remember the material better, and you will also save yourself considerable time. (Cited in Bernstein, Penner, Clarke – Stewart, Roy 2006:271)

4. Lumosity Training and Brain Boosting Food

In order to improve the intellectual functioning of secondary school students, the counselling psychologists could guide the students to participate in lumosity training and consume more brain boosting food. In an experimental study conducted by Kpolovie (2011) captioned: Cognitive Enhancement: Effects of lumosity training and brain boosting food, on learning, he found that the consumption of brain boosting food such as salmon, mackerel and sardines, that are rich in omega 3 essential fatty acids; and fruits such as blueberries, mangoes and watermelon that are antioxidant contributed to improve learning.

Also, the use of food supplements such as ginkgo biloba and folic acid while eating normal food even lead to greater improvement in intellectual functioning. According to Kpolovie (2011) participation in lumosity games significantly led to improvement in learning more than, consumption of brain boosting food, while brain boosting food group learned better than the control group. The lumosity training involve the use of computer and registration with Lumos labs, incorporated at the internet.

4.1 Improving Memory to ensure long – term Storage.

The counselling psychologists should counsel the students on how to retain information in the long term memory as a way of enhancing their intellectual functioning. The human memory is essentially classified into three components, namely: sensory memory or sensory register, short – term memory and long – term memory. The long – term memory is where information can be stored for a very long time. Therefore in order to improve students intellectual functioning, it is imperative that the necessary strategies that could ensure storage of learnt information in the student’s long – term memory be adopted by the counselling psychologist to counsel both teachers and students to utilize the approaches in their teaching and learning activities. In order to improve the students intellectual functioning. Kemjika (2006:125, Myers 2001:354), Bernstein, Penner, Clarke – Stewart, Roy (2006:269), Passer & Smith (2004:248) have identified the following measures:

1. **Rehearsal:** This is the process of retaining information in the short - term memory to ensure that it is transferred to long – term memory. It involves the learner thinking about the information or saying it repeatedly. Teachers should encourage students to practice rehearsal in what ever they are teaching them. For instance English teachers could ask students to make sentence with newly learned words or to write summaries of given passages read.
2. **Use of visual aids:** the teacher should use visual aids in his teaching where appropriate. This is because people easily remember what they see, feel, touch, manipulate or handle.
3. **Making information meaningful to students:** The teacher must make what ever information he wants students to remember meaningful to them. Thus, during instruction, the teacher should present the subject matter in such a way that it makes a lot of sense to the students. If applicable, relate the information to the aspect of their lives that is very important to them. Ensure that what is being thought is clearly understood by students.
4. **Physical/verbal Activities:** Physical or verbal activities when carried out with students serve the same purpose as rehearsal by facilitating retention into the long term memory. Thus when physical demonstration is accompanied with verbal information, it aids memorization. For instance, if in teaching students vocabulary such as: “sit” “stand” and “walk”, are followed by practical demonstration of the actions, the students understand the vocabularies faster.
5. **Group discussion:** When students organize themselves into discussion groups they learn better than individual silent reading. This is because deep understanding of the information is required before they can explain it to each other.
6. **Mental Imagery:** This involves forming mental picture to help students remember associations. When a person can form the mental image of an event, it becomes very easy to remember. Some personal events which we have formed the mental images can still be remembered today after many years.
7. **Loci Method:** this is a method by which one remembers a number of items by picturing them in particular familiar locations. The device makes use of mental imagery associated with particular familiar locations. For instance, if you are asked to name ten items that could be found in a parlour, you could easily cast your mind back and have a mental picture of the items in your parlour. This could enable you to list the items.
8. **Massed/Distributed Practice:** In massed practice, the students practice newly learned information very intensively until it is thoroughly mastered. While in distributed practice, they practice the newly learned

information a little each day over a longer time frame or if it is a material that can take ten hours, instead of studying for the ten hours at once which is massed, you study for one hour each with intervals of breaks and sleeps. Research shows that massed practice enhances fast temporary learning, while distributed practice encouraged longer retention of the information.

9. **Study repeatedly to boost long-term recall:** This refers to over-learning for instance, to learn a name, say it to yourself after being introduced, wait for a few seconds and say it again, wait longer and say it again.
10. **Minimize interference:** Do not study in close proximity topics that are likely to interfere with each other, such as Spanish and French, mathematics and physics, commerce and Economics
11. **Recall events** while they are fresh before you encounter possible misinformation. Thus if you are an eye witness to an important event record it in your memory before allowing others to suggest what might have occurred.
12. **Mnemonic Devices:** According to Passer and Smith (2004:248) the term mnemonic refers to the art of improving memory aid. Mnemonic devices re-organize information into more meaningful units and provide extra cues to help retrieve information from long-term memory. Instance of mnemonic device include acronyms, rhymes, chunks. Acronyms combine one or more letters usually the first letter from each piece of information you wish to remember. Eg OPEC, ECOWAS USAID.
13. **Rhymes:** In teaching learners the number of days in each of the 12 months of the year a rhyme like thirty days has September, April, June and November all the rest has 31 days except February which has 28 or 29 days. According to Kemjika, (2006) the number 333,1515 could be easily remember when grouped into chunks like Triple three, double fifteen. This is called chunking.

5. Conclusion

It should be noted that all aspects of human problems that are capable of eliciting deep emotional feeling such as depression, fear, anger and anxiety are also capable of retarding intellectual functioning. In effect, counselling psychologists who are professionally equipped to handle students academic and emotional problems could play significant role towards improving students intellectual functioning. They could do this by counselling the students to focus attention on the study material when studying and to adopt the principles of learning as highlighted in this paper. In addition, counselling psychologist should guide the learners to realize the usefulness of applying PQ4R method of reading, participating in lumosity training and consuming brain boosting food in order to accelerate their intellectual functioning. Also, various strategies of improving memory to ensure long term storage were stipulated. Some recommendations were made, including the need for enhanced reading culture among secondary school students. Intellectual functioning of the secondary school students will be improved by counselling psychologist if the above measures are adopted.

6. Recommendations

- (1) **Need for enhanced reading culture:** In order to improve the intellectual functioning of secondary school students, the counselling psychologists should enable teachers, parents and the government to encourage increased reading culture among secondary school students. Teachers could accomplish this by giving the students assignments that require extensive reading. Parents are to buy assorted novels for their children and require them to explain the content of the novels chapter by chapter to the parents. While the various levels of government should provide well stocked libraries in both urban and rural areas
- (2) **Employment of counselling psychologist in school:** In view of the enormous roles the counselling psychologist could play towards improvement in the intellectual functioning of secondary school students each secondary school should have not less than two counselling psychologist for each level of secondary education. Thus the state and federal governments are required to employ and post two counselling psychologist to junior and another two to senior secondary schools.
- (3) **Counselling psychologists are not to teach:** School authorities should not direct counselling psychologists to teach any subject. This is to prevent the distraction of their attention from their major responsibility of counselling the students.
- (4) The counselling psychologist should let the students know that he could assist them to improve in their intellectual functioning, so as to enable the students come to him voluntarily for counselling. This information could be given during assemblies.
- (5) Teachers should ensure students active participation in class while teaching. This helps students to remember what was learnt in the class. Active participation includes note taking, asking and answering questions in the class.

- (6) The counselling psychologists should counsel the students to participate in lumosity training and consume more brain boosting food to enhance improvement in their intellectual functioning.

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About the Author

This author became a member Counselling Association of Nigeria in 2012, member Nigerian Council of Educational Psychologists in 2011, and member Association of Educational Researchers and Evaluators in 2010. He hails from Itu in Ezinihitte L.G.A. of Imo State Nigeria and was born on 2nd February 1961. Dr. Jonathan N. Onukwufor the author has acquired the following qualifications: Bachelor of Science (Education) Economics Degree (B.Sc Ed. Econs) 1988, Master of Education (M.Ed) Guidance and Counselling 1995, and Doctor of Philosophy (Ph.D) 2008 all from University of Port Harcourt Rivers State Nigeria. The author's major field of study is educational psychology.

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