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OVERSCHOOLING AND STUDENTS' STUDY SKILLS IN JUNIOR SECONDARY SCHOOL BASIC SCIENCE

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Abstract

The study investigated overschooling and students' study skills in junior secondary school basic science in 10 private schools in Ikot Ekpene LGA of Akwa Ibom State. From the population of all JSS1 and JSS2 Basic Science students in Ikot Ekpene Local Government Area, a sample size of 200 JS 1 and JS 2 basic science students were drawn using stratified random sampling technique. Two research questions guided the study. Instrument used was Basic Science Students' Study Skills Questionnaire (BSSSQ). Cronbach alpha was used to determine the reliability which yielded a coefficient of 0.85 and the data collected were analyzed using Mean (X). Results showed that there was a significant effect of overschooling on basic science students' study skills. There was gender related differences in that the males were influenced by overschooling on their writing skill and the females were influenced by overschooling on listening skill. The study, therefore, recommended amongst others that students should be given adequate time after school to relax and practice efficient utilization of study skills to facilitate knowledge grasp of basic science.

Introduction

Overschooling is a contested and debatable topic. Ying-chu (2010) defined over-schooling as over-education. He opined that overschooling is regarded as the result of imperfect allocation in labour market. Hulbert (2010) defined overschooling as a push to excel both in and outside the classroom. He opined that it is a means of pushing students/ pupils to succeed. It is a form of vigorous self – discipline resulting in top performance with the end justifying the means. Gladwell (2008) defined over schooling as the difference between being smart, educated and intelligent. Overschooling is a strong push by over- zealous parents to make children

succeed in their academic pursuit at all cost. It is acts of making children consider themselves exceptional in academic standards. This puts children under enormous pressure in order to satisfy parents' yearnings. They must win in all science competitions to become all-stars achiever. In this way, overschooling could be said to be the imparting of excess knowledge not desired at the time of impartation. Overschooling to many teachers and parents may mean sacrificing three hours daily after the normal six hours classroom involvement so as to make students excel better in their academic studies at school.

In the late 70s and 80s, it was compulsory for students to attend lessons during or towards examination periods in order to boost chances of

passing examinations. Currently, the idea is different in that students are hard – driven to carry excess academic workload beyond their ages without giving enough time for a child's relaxation. Schooling children are pushed to attain academic feats at very tender ages by any means. This is overschooling. This have influence on both students academic performance and study skills either positively or negatively.

Study skills according to Mondofacto online medical dictionary, is the abilities that can be developed in order to improve a learner's capacity to learn. These include the preparation of written notes, the draft of a personal plan to be followed, outlining important details, reviewing and revising lecture notes, making reference to past examination questions and preparing for examinations. Study skills are interactive learning skills that are needed to be incorporated into science learning to enhance students' performance. These skills are reading, listening, note-taking and writing. Reading is an important skill and component of science learning. It is a skill needed by basic science students so that learning becomes effective. Without reading, a basic science student cannot learn many things. In basic science study therefore, a learner must read to ensure that he is learning and must be able to recall scientific facts, principles and laws that are being read. A basic science student should have adequate reading skill to be able to decode meaning out of various written materials on science such as journals, science magazines, illustrative pictorial science picture books, newspapers and textbooks. These materials can prompt scientific knowledge acquisition, build up sense

of scientific vocabulary and a desire to continue on scientific exploration. Reading scientific concepts improves higher order thinking skills such as the ability to think, analyze situations, make predictions and evaluate judgments based on scientific information. Effective reading skill will ensure that students keep track of ideas and integrate appropriate scientific formulations where necessary. Overschooling therefore, may mar or improve this study skill among students depending on how it is used.

Listening is a learned skill and important for proper understanding of basic science. It does not just happen, as it involves the action of sensing, interpreting, evaluating and responding (Awotua – Efebo, 2007). Listening is taking in information from speakers, other people or ourselves while remaining non-judgmental and emphatic. Note-taking is a study skill, when properly applied reinforces active reading and constructive study (Obanya, 2003). Notes provide the place where questions, references, reminder of events could be recorded and recalled. It reflects students thinking and enables them to understand and retain ideas. Obanya (2003) opined that note-taking is probably the highest level of conjectural comprehension where critical and imaginative faculties come together to evaluate the writer's ideas and formulate new ones. By this means, scientific concepts are made more meaningful for students' scientific literacy and skill acquisition. Note-taking may be in the form of an outline or a series of connected sentences that is handy and enables a learner achieve the aims of a lesson. Most students of basic science find note-taking quite a herculean task to

do and as such do not bother during basic science classes to take down notes.

Writing involves the ability to put things down in a clear, precise, coherent and effective manner. Writing should be of a quality every reader will find acceptable (Louis, 2004). If one reads and is unable to put down in writing what is read for others to know that reading was effective, then no reading is done. Reading and writing are thus interrelated skills. Science students must learn to write well in science subjects, but their influence of overschooling on students on these study skills is worth knowing. The influence may be positive or negative. This work will help to find out the direction. Kelly (1999), stated that it is important to know how to communicate your point quickly and professionally by writing as some people spend a lot of time writing. Hansen and Hansen (2011) assert that writing skill are important and can help science students achieve academic mastery. Many science researchers have opined that writing skills are critical to academic success. Those with good writing skills raise their grades on examinations and most potential employers do care about writing skills. In science, writing skills are crucial, yet increasing numbers of professionals note a steady erosion in the writing abilities of graduates. In a survey carried out by the U. S, Labour Department in 2007, writing skills of graduates were shockingly low, indicating that schools and colleges dismally fail with at least two-thirds of the people who pass through the education pipeline coming out unable to write a simple letter. This is another important factor that prompts the researcher into finding the effect

of overschooling on basic science students' study skills. There exists a good link between science and study skills (Etukudo and Azuka, 2002). The teaching and learning of science can hardly be achieved without these study skills as they are required for proper learning and understanding of basic science. It will be difficult to make meaningful breakthrough in basic science without sufficient acquisition of study skills. These skills will help students to develop scientific and technological attitudes, acquire competent skills that are necessary and useful for problem-solving, decision-making, drawing conclusions and being productive in a rapidly changing science world. Basic science needs sound grounding to survive because science is a creative activity that places emphasis on the development of science process skills using appropriate study skills. These skills include accurate observation, handling of equipment, communicating, observing and findings, reporting experiments accurately, making inference and having basic computer knowledge and skills for scientific manipulations and explorations. Goodrum (2001) linked science process skills acquisition to study skills that improve science learning. These science process skills can be acquired by learners through exposure to appropriate study skills of reading, listening, note-taking and writing. These study skills are needed by learners to effectively comprehend and communicate scientific information accurately. Utilizing these skills will properly position and equip basic science students to face the realities of the scientific world, and fit in properly into the world of work and life long productivity in any chosen career. The objectives of STM education in the

new basic science education programme of National Council on Education (2008) emphasize the development of interest in science, technology and mathematics acquisition of basic STM knowledge and skills, application of STM skills and knowledge to meet societal needs and preparing students to take advantage of the numerous STM career opportunities. Achieving these objectives lie on students' acquisition of good study skills. This therefore, implies that quality basic science teaching, inculcating basic study skills are needed by students to excel in any scientific endeavour.

Most basic science teachers rarely use these study skills nor consider their integration in basic science teaching. This has hampered students study skills acquisition and has caused many parents to seek for alternative measures of remedying learners' poor knowledge of science study. This is done so that learners can catch-up with a fast- changing world of science and technology and this leads to overschooling. Students stay back in school to receive extra lessons on Mathematics, English Language and Literature which may not be needed at this point in time. Parents also lack adequate skills for supervision of students schoolwork as they are busy about other personal engagements. They neglect and shift their role of parenting on school matters to teachers. This leads to overschooling. Basic science students are burdened with overloaded schedule of schoolwork such as multiple assignments both in class and from the extra lessons they receive after school and do not have time for relaxation. This according to (Bewu, 2011) put a lot of pressure on the children making studying counter-

productive. This has led to apathy on the part of the students. Boys and girls of ages 10years to 13years cannot cope with the load of the whole day but are made to stay for extra lessons and tutorials lasting till 4pm. They forget almost everything they have learnt and leave the extra classes tired and hungry and do not benefit from the extra lessons as some are too tired to do their homework. This is overschooling and this does not seem to have helped these students much. Some of them still perform very poorly in the basic science tests and examinations. It is therefore, necessary to look into study skill factors and how they can help to achieve the goals of basic science education for national development. It therefore, becomes pertinent that the effect of overschooling on such important study skills be determined, hence, the focal interest of this study. Specifically, this study answered the following research questions.

1. To what extent does overschooling influence basic science students' study skills?
2. To what extent does overschooling influence male and female students' study skills in basic science?

Research Procedure

The study applied a survey design which found out the influence of overschooling on students' study skills in junior basic science classes. The population was made up of all JS1 and JS2 basic science students totaling 1,205 in the 10 private secondary schools in Ikot Ekpene Local Government Area of Akwa Ibom State. A stratified random sampling technique was used to draw 200 Basic Science students from the 10 schools. This formed the sample size for the study. The

instrument used for data collection was Basic Science Students' Study Skills Questionnaire (BSSSQ) developed by the researcher and validated by two experienced chemistry graduate teachers and two test and measurement experts. The response option was a 4- point rating of Strongly Agree(SA) 4 points, Agree(A) 3 points, Disagree(D) 2 points, and Strongly Disagreed(SD)1 point . A total of 200 Questionnaire were administered to respondents and collected back the same day and used for data analysis. The items reliability

were determined using Cronbach Alpha which yielded a coefficient of 0.85. The data collected were analyzed using descriptive statistics of Mean (X). The mean (X) was interpreted using the following grades. 2. 50 – 4.00 as Agree and 1.00 - 2.49 as Disagree.

The Results of the study are presented below.

Results

RQ 1: To what extent does overschooling influence basic science students' study skills?

Table 1
Mean rating of students responses on study skills

S/N	Item Statement	\bar{X}	Decision
1.	I cannot listen effectively because of tiredness from overschooling	3.22	Agree
2.	I cannot listen effectively because the class went on for too long.	2.58	Agree
3.	There are too many assignments to do that I do not find time for note-taking	2.81	Agree
4.	I cannot complete my notes because I hardly have time for relaxation	3.01	Agree
5.	I cannot read very well because I am overschooled with extra lessons.	2.63	Agree
6.	I cannot write fast because I have stayed too long in school taking extra lessons	2.77	Agree
7.	I do not have time to practice skills that will improve my reading.	3.36	Agree
8.	I find it difficult writing because my science vocabulary is very inadequate as I hardly practice due to overschooling.	2.25	Disagree

Results on Table 1 above show that seven out of the eight items enumerated on study skills had mean ratings between 2.58 and 3.36, while only one study skill item 8 had a mean rating of less than 2.25 depicting

difficulty of inadequate science vocabulary for writing skill because they hardly practice. In other words, overschooling has effect on study skills of junior basic science students.

RQ 2: To what extent does overschooling influence male and female students' study skills in basic science?

Table 2

Mean ratings of responses of male and female basic science students on study skills.

Item Statement	Male		Female	
	\bar{X}	Decision	\bar{X}	Decision
I cannot listen effectively because of tiredness from overschooling	2.93	Agree	2.41	Disagree
I cannot listen effectively because the class went on for too long	2.53	Agree	2.61	Agree
There are too many assignments to do that I do not find time for note-taking in class	2.99	Agree	3.12	Agree
I cannot complete my notes because I hardly have time for relaxation.	3.18	Agree	2.88	Agree
I cannot read well because I am overschooled with extra lessons	2.60	Agree	2.95	Agree
I cannot write fast because I have stayed too long in school taking extra lessons.	2.48	Disagree	2.74	Agree
I do not have time to practice skills that will improve my reading because I am overschooled.	3.18	Agree	2.69	Agree
I find it difficult writing because my science vocabulary is inadequate as I hardly practice due to overschooling	2.83	Agree	2.50	Agree

Results on Table 2 above show that all the items on study skills apart from items 9 and 14 had mean ratings of 2.50 and above. This means that males disagreed with item 14 which is 'I cannot write fast because I have stayed too long in school taking extra lessons' while females disagreed on item 9 which is 'I cannot listen effectively because of tiredness from

overschooling'. This indicates that overschooling significantly influenced basic science students study skills as the mean values from the study showed. The mean rating on item 14 was low on writing skills ($X= 2.48$) for males while item 9 on effective listening skill was low for females ($X =2.41$).

Discussion of findings

The data analysis showed that overschooling influenced all the items, except items 9 and 14 out of the 16 study skill items enumerated. This gives an indication that basic science teaching content lack relevant study skills integration that could guide students appropriately in the course of learning science. Instead of lack of acquisition of these skills through overschooling, these skills should be integrated into its science learning content to enhance basic science students' knowledge in the subject. The fact that item 8 on writing skills had a low mean value of 2.25 does not negate the fact that basic science students need to practice writing skill to improve on their science vocabulary to aid them in basic science learning. Junior basic science students agreement on reading, listening, writing and note-taking study skills items is in line with (Goodrum, 2001) who opined that it will be difficult to make meaningful breakthrough in basic science teaching without sufficient acquisition of study skills. Basic science students low level acquisition on item 8 on writing skills, is still an indication that learners of basic science are inadequately prepared for study skills acquisition on basic science by teachers. The teaching of basic science up till date lack basic study skills use in classrooms and as such students' cannot successfully reverse the trend on poor performance in the subject. Basic science students therefore need adequate study skill acquisition such as reading, listening, note-taking and writing in their classroom science learning to perform effectively in science study.

In Table 2, on male and female students responses on study skills in

basic science of junior secondary school, all the male respondents had high mean values of 2.53 to 3.18 except for item 14 on their inability to write fast because they stay long at school. The female respondents agreed with high mean values of 2.50 to 3.12 on all the items on study skills but had a low mean value of 2.41 on item 9 on listening effectiveness because of tiredness due to overschooling. These skills may be hampered by overloaded timetable schedules of other subjects and other school assignments. The results of the study is in agreement with Bewu (2011) and Brown (2011) who both collaborated that basic science students can effectively develop their study skills if they are not overburdened with overschooling as most of them come back home tired, hungry and sleepy and in most instances do not benefit from these classes. The study also supports the recommendation from Developmental Learning centre in Australia, that basic science students will have freedom from learning difficulties involving study skills if they are allowed to explore learning at their own pace.

Conclusion

Overschooling makes basic science students unable to effectively explore and utilize study skills to their advantage in science learning. They are unable to find time to improve their reading, listening, note-taking and writing skills because they are overloaded with assignments that give them little or no time to practice effective use of study skills for knowledge-based and value-laden science learning. Basic science students have hidden potentials that need study skills to develop. These skills will encourage their creativity in

any given opportunity leading to lifelong science career productivity. A successive integration of study skills in the curriculum will improve students utilization of these skills.

Recommendations

Based on the findings of the study, the following recommendations are made :

1. Manual on study skills should be developed for basic science students to enhance study skills acquisition on the subject.
2. Study skills should be introduced by science teachers in the course of lesson delivery.
3. School management authorities should make it mandatory to introduce study skills of reading, listening, note-taking and writing as club activities in the school.
4. School principals and other stakeholders of education should create an awareness on the necessity for study skills acquisition by organizing seminars, and regular workshops within the school premises at different times for teachers and students in the school timetable.
5. Study skills should be integrated into basic science curriculum.

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