Faculty of Natural and Applied Sciences Journal of Mathematics and Science Education
Print ISSN: 2814-0885 e-ISSN: 2814-0931
www.fnasjournals.com
Volume 4; Issue 1; March 2023; Page No. 1-5.

DEVELOPING CONFIDENCE IN A LEARNER THROUGH PEER-LED TEAM LEARNING STRATEGY: CURBING THE MENACE OF EXAMINATION MALPRACTICE IN SCIENCE

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Abstract
This paper considered examination malpractice in tertiary institutions, the consequential effect of indulgence in this menace and basic factors influencing the continuous occurrence. Special attention was directed to an innovative learning strategy that can effectively control students' involvement in examination malpractice. Details on how to use this innovative peer-led team learning strategy were presented. The paper concluded by suggesting that a peer-led team learning strategy be infused into the teaching practice of the university to curb the menace of examination malpractice and produce self-confident graduates with relevant skills to fit properly into the global workforce

Keywords: Peer-Led Team Learning, Examination Malpractice, Confidence, Learner, Science.

Introduction

Examining something has always been considered the finest method of appraisal. Indeed, it is a formal assessment of knowledge or skill (school setting). In the future, exams are a way to gauge how much information a student has gained over a certain amount of time (Omenu, 2015). Omenu views examination as a method for evaluating a person's knowledge base and skill set. When students are given tests to see how well they have retained the material being taught, the goals of science teaching and learning may be met. The instructor can also evaluate his or her teaching effectiveness based on the student results. Examinations are crucial to our schooling system as well as to society at large. Different types of exams are common in Nigeria. The entrance exams, terminal and promotion exams, high school diploma exams, and degree or diploma exams fall under this category. All exams that students take must be passed, so they must properly study and prepare. Unfortunately, due to the introduction of all types of cheating into the system, this crucial method of evaluating pupils has lost its efficacy. Today, students can find a variety of ways to succeed on these exams even without sufficient preparation, such as reading, group talks, and writing materials on hand. Instead, these students opted to "succeed" through dishonest means like obtaining test questions ahead of schedule (leakage of exam papers), passing themselves off as someone else, receiving outside help, copying, smuggling foreign materials, and substituting scripts.

In a study on the causes of examination malpractice in Nigerian schools, Omemu (2015) opined that the desire to pass at all costs is a strong factor responsible for examination malpractice. This strong desire can be harnessed and channelled properly to yield positive results. Students should be made to understand that spending quality time studying and preparing for any examination is a sure way to succeed and have good results. Conversely, the examination malpractice menace has a lot of negative consequences especially as it affects society at large.

Consequences of Examination Malpractice on Youths and the Society

The consequences of examination malpractice on students and society have some negative effects on our youths and the nation as revealed in the following ways:

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- It degrades the standard of the certificate given to our grads. It is understandable why the majority of Western nations, such as Europe and America, consider Nigerian grads' diplomas to be inferior to those of graduates from South Africa and Ghana. It is a well-known truth that Nigerian employers of labour now favour individuals with degrees from Europe, America, and other nations that they recognize as adequate.
- Examination malpractice discourages hard work, good study habits and genuine learning thereby retarding students' intellectual capabilities and skill acquisition.
- It decreases productivity: Exam malpractice products who are unable to provide the level of services required of them when necessary will always adopt some aspect of "godfatherism" and other malpractices they are used to, such as cultism, bribery, etc. to move up the administrative ladder. These vices will surely slow down the country's development following international standards.
- Teachers who are the result of test fraud degrade the quality of instruction and learning in higher education institutions. According to studies, these lecturers would encourage the habit of cheating on exams (Omemu 2015; Njoku 2019a).
- Examinees who are preparing to become future leaders and entrepreneurs continue to engage in examination malpractice, which tends to undermine society's integrity.
- The threat of test malpractice is destroying well-orchestrated work ethics, and moral degradation in society is rising.
- It denies honest graduates the chance to get decent employment. It is a well-known reality that many test cheaters who have powerful backgrounds now have jobs in the workforce that would otherwise have gone to competent and qualified graduates. Of course, there are several potential causes for students to cheat on exams.

Factors influencing students' Involvement in examination malpractice

As a result of insufficient test preparation, students' lack of confidence is a significant risk factor for examination misconduct, according to Pepple (2015) and Njoku (2019). As students are no longer diligent and committed to their academic endeavours, Njoku (2019) claims that loss of confidence is one of the fundamental causes of examination fraud in Nigeria. Unprepared students are more likely to use exam cheating to pass. This is achievable as a result of the focus placed on paper credentials (certificates) rather than knowledge, competence, and abilities. Onwuzo, (2014) in a study on causes of exam malpractice in tertiary institutions, adduced the reasons for sustained examination malpractice in the school system as low self-confidence, inadequate teaching and insufficient preparation of students for examinations. Yet there is so much pressure from parents, peers and society for students to make good grades (Omemu, 2015). The influence of peer groups on students' behaviour and academic performance cannot be overemphasized.

Peers are one of the most significant influences on students' behaviour, which in turn affects their academic performance. "Tell me who your friends are, and I'll tell you who you are," is a proverb. Due to friends' strong influence over friends, this may be true in the majority of cases. In most circumstances, children are "naturally" linked to their peers, who are not that challenging to get along with due to proximity in age and other characteristics. Sometimes students pick friends, other times they are naturally pulled to friendship, and sometimes they have no option. Because of these similarities, decisions are influenced, and kids don't think there's anything wrong with what their pals do as long as they're close. The phrase "Peer Pressure" was coined as a result of the proximity and effect. When a student has a group of friends who may have a significant impact on her decisions, she may be persuaded to take actions she is unsure of and, most likely, she will repeat them because she believes it is okay. After all, her friends think it is okay. Like fire, peer pressure has the power to either make or break you. Teachers should take advantage of peer pressure and offer assistance to the kids since it has the power to change someone. The most significant element influencing a kid is peer influence, and peer groups have a greater effect than parents do. Due to the substantial effect of peer groups on learning, collaborative learning methodologies have been developed to take advantage of this pressure. Collaboration leads to in-class engagement with other students. Peer interactions in the classroom are typical and crucial components of the learning process that affect students' lifetime learning habits. Peer impact on behaviour, such as engagement in test fraud, eventually becomes more pronounced.

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The issue of lack of integrity and examination misconduct in Nigeria has been of great concern to educators and exanimation bodies like West African Examination Council (WAEC) and Joint Admission and Matriculation Board (JAMB). Annually WAEC reports cases of cheating during the examination and subsequent withholding of the result of an entire centre. This issue of examination misconduct is boldly brought into the tertiary institutions with level as the student are now an adult that is aware of the consequences of their actions. At the tertiary institutions, this menace developed several tentacles by involving more persons and groups like parents, lecturers, university ICT centre staff, higher level students, and cyber café. Although various institutions have ways to punish perpetrators, it seems difficult to control their occurrence. Lecturers that support and get involved in the act of academic misconduct, who are few and sometimes insignificant, may not bother. The trusted majority have been struggling with how to curb this menace that is digging deep into the "bones and marrows" of the education sector.

Strategies to curb the menace of examination malpractice

Methods for Reducing Examination Misconduct in Nigerian Tertiary Institutions Exam fraud functions as a gear in the national development machine. It should be engaged in a serious battle to advance the nation in the following ways:

- Instead of emphasizing the awareness of facts and concepts during teaching and learning, the focus should be given to the actual application of learning. The learners' self-confidence will grow as a result of this.
- Why Peer-led team learning should be a core component of STEM (Science, Technology, Engineering, and Mathematics) education.
- Lastly, actual hands-on instruction should be made mandatory, and skill development in relevant disciplines should be the primary criterion for employment rather than simple credential ownership. By doing this, people who rely on cheating to get excellent marks will be weeded out.

Further probe into the issue of examination misconduct in schools, it becomes clearer that most of the culprits lack confidence in themselves. To a large extent, STEM students find it difficult to have an in-depth knowledge of scientific concepts, because they need to cover a wide range of concepts. For instance, Biology students need to cover many concepts in the three basic areas of Biology (Botany, Zoology and Microbiology) as reflected in the scheme of work, within a short period. This condition makes it necessary for Biology lecturers to adopt an additional and innovative learning strategy that can build the needed confidence with a deeper understanding of various topics, thereby helping the students go into examinations well-prepared and confident to write without dependence on any form of malpractice. More so, to come out with better grades when the result is eventually published. To obtain good grades along with skills and competence, there is the need to consciously search for a learning strategy that can make this possible and enhance a positive attitude towards science. Research has shown that the learning strategy that can achieve this is peer-led team learning (Njoku & Nwagbo, 2020).

Peer-Led Team Learning

Peer-led team learning strategy (PLTL) is a supplementary learning strategy in which students are placed in groups of 6 - 8 each, with a more capable peer appointed as peer leader (PL) for each group. After the usual lecture, the groups will meet two or three times a week to brainstorm on topics that are difficult to understand, with the peer leader guiding and coordinating the process (Carlson et al., 2016). The PL is a peer that had passed that particular course with an "A" or a strong "B" and can organise group lessons. The PL introduces the lesson for the day and poses discussion questions, thereafter group members are allowed to make their points, disagree, agree and finally reach a consensus. This process brings about long-lasting retention and PLTL is fundamentally supported by some basic learning theories.

Albert Bandura's social learning theory speaks precisely to the human interactions involved in learning. Observational learning is based upon learning by watching them "modelling" or acting similarly to others. If the student views and works with people who appreciate learning by engaging in learning activities, then they too will engage in learning and might work harder at learning. Peers with positive behaviours towards education will allow and teach each other to set goals that include opportunities to learn and achieve. If peer models do not convey positive attitudes towards learning, then the students observing those models will not prioritize learning in their own lives (Bandura, 1989). This is a good reason to adopt a peer-led team learning strategy. Peer-led team learning strategy can also be understood in the context of constructive science learning where control is shifting

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from the teacher to an increasingly autonomous learner, it is consistent with the social constructivism ideas of Vygotsky (1978), where students are asked to construct their understanding with guidance from a more capable peer. It is important to note that Vygotsky specifically stated that "more capable peers," or peer leaders in the PLTL model, can be used to promote learning within the Zone of Proximal Development (ZPD), a concept Vygotsky defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers." The reason PLTL seem to produce a positive attitude towards learning is that it is a special group strategy whereby students interact among themselves, and feel free to ask questions with a more knowledgeable peer, presented by Vygotsky (1978) as a "More Knowledgeable Other" (MKO), very handy to guide. The students are not threatened by the presence of a teacher who may just be interested in covering the syllabus. Peer-led team learning should be an integral part of instruction in Universities, to help the students develop positive attitudes towards STEM subjects and also build confidence in the learner which will give no room for cheating in examinations.

Peer-Led Team Learning also increases students' engagement motivation and performance, like every collaborative learning. It can improve retention rates, critical thinking, and appreciation of diversity, also the development of social and professional skills. The Peer-Led Team Learning (PLTL) programmes generally supplement the lecture. PLTL can be used in a course with any size enrolment. Thus, PLTL offers a mix of active-learning opportunities for students. Several other methods of teaching strategies like concept mapping, graphing, discussion, demonstration, inquiry and other laboratory methods are employed in the implementation of the mixed active learning offered in PLTL programme sessions (Njoku, et al., 2020b).

- The learning sessions are an efficient approach to getting a lot of students involved with the content and with one another. They help enhance performance and retention, teamwork and communication skills, motivation, and desire in continuing their studies in the sciences (Snyder et al., 2016).
- Many educational possibilities are provided through peer-led team learning, including:
- Resolving issues in class that let students evaluate their comprehension of important course ideas
- Students learn by explaining ideas to other students (mutual learning); many students are more ready to address their questions with other students than with a teacher; the supportive, small-group approach stimulates inquiries and debates that lead to deeper conceptual comprehension.
- Students learn to work in teams and communicate effectively without feeling intimidated by the presence of a teacher
- Peer leaders develop their confidence while learning how to teach and run groups (Part of teacher training)

The creators of PLTL identified six "essential components" crucial to a PLTL programme's success for several years of program assessments (Njoku, 2019).

1. The learning sessions must be tightly connected with the whole course and all of its components.
2. Academic institutions hosting these courses, such as the Faculty of Natural and Applied Science (FNAS), must actively participate in the PLTL initiative. Its engagement includes the selection of peer leaders, the creation of a supportive learning environment, and effectiveness monitoring.

Peer-led team learning was originally developed for undergraduate science courses (in the USA) to enhance the learning of science through small instructional groups led by students' peers (known as peer leaders). It had been established within universities as a potential replacement for tutorial sessions and is characterized by upper-year students coordinating the answering of questions about lectures with their undergraduate peers in small groups. In Nigeria, PLTL is yet to gain popularity as lecturers and faculties do not have the required knowledge for implementation. Given the benefits of implementing PLTL, it behoves science educators to push for its inclusion in the STEM curriculum, especially for trainee teachers.

Conclusion

Without the growth of a quality workforce, which may be accomplished through quality education, our society cannot advance following world norms. Sadly, the threat of examination malpractice plagues our current tertiary education system, and despite suffering all of its negative effects, our young in tertiary institutions have persisted to engage in it to the detriment of national advancement. So, everyone must pitch in to eradicate this hated monster from our society by using the creative peer-led team learning technique to reduce examination fraud in Nigerian higher institutions.

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Suggestions

1. The instructional technique of peer-led team learning should take centre stage in scientific curricula.
2. To fully benefit from this strategy and to produce graduates who are confident and who have the necessary knowledge and skills to successfully compete in the global "labour market," workshops should be organized to train and retrain science teachers and lecturers on the implementation of PLTL.

References

Bandura, A. (1989). *Social cognitive theory.* In R. Vasta (Ed.), Annals of child development. six theories of child development 6 (1-60). CT: JAI Press

Carlson, K., Turvold, C. D., Curran, E., Marcus, M. & Loe, M. (2016). Assessing the impact of a multi-disciplinary peer-led-team learning program on undergraduate STEM education. *Journal of University Teaching & Learning Practice, 13*(1), 1-21. http://ro.uow.edu.au/jutlp/vol13/iss1/5

Njoku, M. I. A. (2019) Forms and factors supportive of examination malpractice. *International Journal of Science and Research (IJSR), 8* (7), 755 – 759.

Njoku, M. I. A. (2019b). *Effects of peer tutoring and peer-led team learning on secondary school students' attitude towards and achievement in biology.* An unpublished Ph.D Thesis of University of Nigeria Nsukka.

Njoku, M. I. A. & Nwagbo, C. R. (2020). Enhancing Students' Attitude and Achievement in Biology through Innovative Strategies. *PEOPLE: International Journal of Social Sciences, 6*(2), 134-152. DOI-https://doi.org/10.20319/pijss.2020.62.134152

Njoku, M. I. A., Nwagbo, C. R. & Ugwuanyi, C. S. (2020). Effect of peer tutoring and peer-led team learning on students' achievement in Biology. *International Journal of Database Theory and Application, 13*(1), 1-10. http://www.article.nadiapub.com/IJDTA/vol13_no1/1.html

Omenu, F. (2015). Causes of examination malpractice in Nigeria schools. *British Journal of Education*, *3*(7), 34-41.

Onwuzo, O. G. U. (2014). Evolving innovative strategies for curbing examination malpractice in tertiary institutions in Nigeria. *Multidisciplinary Journal of Research Development, 22*(1), 1-6. www.globalacademicgroup.com

Pepple, T. F. (2015). Students' perception of examination malpractice in Rivers State University of Education Port Harcourt. *American Journal of scientific and Industrial Research, 6*(1), 5-11.

Snyder, J. J., Sloane. J. D., Dunk, R. D. P. & Wiles, J. R. (2016) Peer-Led Team Learning Helps Minority Students Succeed. *PLoS Biology, 14*(3), e1002398. https://doi.org/10.1371/journal.pbio.1002398

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.