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Entry Behaviour, Learner Motivation, Self-Regulation and Academic Performance of First Year ICT Students: Evidence from Kibi Technical Institute

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A B S T R A C T

The study investigated the impact of entry behaviour on academic performance among first-year ICT students at Kibi Technical Institute, while also exploring learner motivation and self-regulation as predictive factors. The study, rooted in motivation and self-regulation theory, utilized a positivist approach and an explanatory design. Data, gathered from 100 first-year ICT students using a structured questionnaire and academic records, were analysed using IBM SPSS Statistics v26. Results showed that self-regulation significantly predicted academic performance, whereas entry behaviour and learner motivation had insignificant effects. It recommends integrating self-regulation training programs into the curriculum to empower students with effective learning strategies and management techniques

INTRODUCTION

The use of information and communication technology (ICT) is essential in the modern world, making it an important area of study for students. In order to excel in the field, students need to have strong academic performance, which can be affected by various variables such as pre-entry behavior, learner motivation, and self-regulation. Empirical investigations have demonstrated that a multitude of factors contribute to students' academic deficiencies in education, including but not limited to low socio-economic status, cognitive aptitude, school-related variables, domestic milieu, and familial support (Muller, 2018; Darling-Hammond & Cook-Harvey, 2018; Peng & Kievit, 2020; Trigueros et al., 2019).

Entry behaviour refers to the activities, traits, and attitudes students bring to an academic programme or institution (Al Shehry & Youssif, 2017). It includes academic achievement, preparation, study habits, motivation, and learning attitudes. Entry behaviour can significantly affect students' academic performance (Drugaş, 2011; Aciro et al., 2021). Students with strong entry behavior—high ambition, good study habits, and a positive learning attitude—are more likely to achieve academically. Student performance is predicted by entry behaviours for the following reasons. First of all, it facilitates educational institutions in identifying pupils who might encounter academic difficulties (Njoroge, Mulwa & Kiweu, 2023). Institutions can assist students succeed by assessing entering behaviour. Additionally, it aids resource allocation. Focusing on students who will benefit most from teaching staff, tutoring programmes, and academic support services helps schools distribute resources more efficiently. Institutions can improve academic achievements by analysing new students' needs and characteristics and designing interventions to boost learning and resolve weaknesses (Drugaş, 2011).

Among other factors, Educationists also believe that, learner characteristics such as learner motivation and self-regulation impact positively on learning outcomes/academic performance. The term motivation is important for all dimensions of life since it explains the 'whys' of behaviour. Motivation has thus been defined as goal-directed behaviour (Weiten, 2006). According to Williams and Williams (2011), student motivation is one of the most important variables in predicting the success of a student's educational experience. They claimed that regular encouragement of pupils was crucial to their success in school. Boynazarov (2021) likewise characterised driving forces behind goal-oriented actions as intrinsic elements. Motivation can be thought of as the forces that propel an individual to take some sort of action in order to achieve some kind of end.

The ability to overcome difficulties encountered during the learning process is another benefit of motivation (Al-Kumaim et al., 2021). Zainuddin (2018) and Huang, Kuo and Chen (2020) both state that increasing student motivation is one of the most effective ways to boost students' academic performance.

In an effort to change students' attitudes and actions in the classroom, Muhammad et al. (2015) claimed that intrinsic motivation is crucial. The findings

revealed a robust positive association between student motivation and academic achievement. Motivating students make them aware whether they are on the right path, encourages and shows students that the teacher or parent is interested in what he/she is doing, makes students persist in learning activities and it is also very essential to the moral aspect of education (Koomson et al., 2017).

In fact, self-regulation encompasses methods through which people direct and manage their own thoughts. According to Zarouk et al. (2020), students engage in self-regulation when they actively verify, regulate, and motivate their own cognitive and behavioural processes to achieve desired outcomes. There are defining characteristics of self-regulated kids that set them apart from their less self-controlled peers. Among these characteristics are the following: 1) the deployment of cognitive strategies; 2) the management and organisation of time; 3) the programming and control of mental processes in order to achieve one's own goals; 4) the development of conducive learning environments; and 5) the failure to make sufficient efforts to manage and regulate academic tasks and the classroom setting (Montalvo & Torres, 2004). This background sets outs the importance of students' entry behavior, motivation and self-regulation for enhanced academic performance among students. However, empirical evidence reveals that these variables together have been understudied in the Ghanaian literature, particularly at the secondary school level and specifically among elective ICT students. Hence, the need for further study to explore the influence of these variables on ICT students' performance in the Ghanaian context.

LITERATURE REVIEW

Introduction

The initial section of this chapter discusses the theoretical review which provides context for this research. the next section reviews the various concepts under study and conceptualizes them in line with the objectives which the research seeks to achieve. The chapter then reviews literature that are relevant to the topic under study. It reviews literature in line with the various relationships understudy thus providing empirical evidence for the hypotheses formulated in this study. The final part of the chapter addresses a conceptual framework for the research which will function as a guide for the achievement of the study's objectives.

Theoretical Review

Theory of Motivation

Motivation is defined as "a theoretical construct to explain the commencement, direction, intensity, persistence, and quality of behavior, particularly goal-directed behavior" (Gustiani, 2020). This pertains to the cognitive and emotional processes of individuals in the context of dynamic interactions between students and their educational environment, taking into account contextual and social factors that may serve as facilitators or constraints (Schuck et al., 2014; Gustiani, 2020). Often called the "engine of learning," motivation has a significant impact on the how, when, and what of a learner's education (Gustiani, 2020).

There are two kinds of learning motivation: intrinsic motivation and extrinsic motivation (Puspitarini & Hanif, 2019). The longing to study, the

determination to accomplish learning objectives, the impetus to fulfill individual educational requirements, and so on which originate from inside the learner are examples of intrinsic motivation. Extrinsic motivation, on the other hand, originates from sources external to the student, such as parental pressure, a comfortable teaching environment, engaging class discussions, and enjoyable classmates or teachers. The significance of motivation in the educational process is evidenced by the observation that pupils who possess intrinsic motivation to acquire knowledge and enhance their academic achievements exhibit more substantial progress in both areas (Gopalan et al., 2016; Budiman, 2016).

Self-Regulation

According to Zimmerman (1994), "self-regulated learning is the process through which learners activate and maintain cognitions, actions, and emotions, which are systematically directed toward completion of their objective" (Matcha et al., 2019). Self-regulation pertains to the extent to which learners engage in the active monitoring of their own learning, encompassing metacognitive, motivational, and behavioural aspects. The process of acquiring academic skills encompasses various components, namely cognitive, metacognitive, motivational, behavioural, and emotional (Zheng et al., 2020). SRL is "an active, constructive process wherein learners create objectives for learning and then strive to monitor, control, and manage their thoughts, intentions, and behaviour, led and restricted by their goals and the contextual aspects of the environment" (Lee et al., 2019). It's a productive procedure whereby students set goals and attempt to keep tabs on and control their own thinking, emotion, and action in the classroom (Wong et al., 2019; Zheng et al., 2020).

According to Inzlicht et al. (2021), self-regulation encompasses the different ways in which individuals adjust their ideas, emotions, and actions in service of a particular purpose, including the exercise of self-control via effort. The stages of SRL are the planning, the performance, and the reflection phase. Learners who successfully use self-regulation enter the planning phase with clear objectives and a well-developed strategy. In the performance phase, students actively engage with the material, reflect on their progress, identify areas for improvement, and actively seek out guidance as required. The last stage of the learning process is reflection, when students evaluate their own performance and the efficacy of their cognitive approaches (Wong et al., 2019).

Entry Behaviour

The term "entry behaviour" pertains to the pre-existing knowledge, cognitive aptitude, drive, and socio-cultural context of a student prior to commencing a particular academic programme. A clearly delineated educational programme tailored for secondary school students has the potential to elicit a significant transformation in their academic and professional development. Success in secondary education depends on students coming in with the correct mindset and having the necessary academic preparation (Al Shehry & Youssif, 2017). Prerequisite knowledge, or cognitive entrance behaviors, are needed before moving on to learn a new subject or concept (Çaliskan, 2014). Interest, attitude, and academic self-concept in relation to a course or the learning units within that course make up a student's affective entry behaviors (Çaliskan, 2014).

Students' entry behaviors are frequently defined by their level of achievement and quality in secondary school.

Students should know a skills inventory before starting a new lesson. The abilities inventory helps teachers detect student skill gaps. In this study, entry behaviour is confined to the BECE grades obtained by students that got then admission as first year elective IT students (Al Shehry & Youssif, 2017).

Academic Performance

Academic performance is a measure of how well a student does in school and how proficient they are in school activities (Schwinger et al., 2014). Furthermore, academic performance is a final outcome that illustrates how well one has performed in respect to achieve targeted outcomes that were the focus of efforts made in classroom settings like basic school, high school, and college. The majority of educational systems' cognitive goals are either broad in scope (such as fostering critical thinking) or focused on fostering mastery of a specific body of information. Due to the breadth and inclusiveness of the concept, measures used to assess academic performance are crucial to articulating its meaning.

General indicators of academic performance can be categorised as either general (such as test scores or performance on an instructional test taken) or curricular (such as certificates and degrees earned) or cumulative (such as procedural and declarative knowledge acquired through educational systems) (Binder et al., 2018; Greene, Cartiff & Duke, 2018).

Entry Behaviour and Academic Performance

The study reviewed literature on the relationships that exist between entry behaviour and academic performance. First and foremost, a study by Roşeanu and Drugaş (2011) was to determine how well the requirements for entering the university may predict how well the applicant would do in their studies. A total of 105 first-year psychology students was employed in this pilot research. The effectiveness of the entrance criterion factors in predicting grades in two very distinct subjects within the psychology education program was examined using a series of regression analyses (neuropsychology and history of psychology).

Overall, the results showed that there is no consensus on whether students' academic performance in high school is a good predictor of their academic performance in college, highlighting the need for further research in this area. However, as the positive associations found were greater than the negative and mixed associations, it is safe to say that entry behaviour most likely positively affects academic performance than otherwise.

Learner Motivation and Academic Performance

The research by Manganelli et al. (2019) accounted for the impact of prior achievement as they looked at the relationship between intrinsic motivation and the usage of cognitive methods to predict academic performance among college students. Students' academic performance, motivation, and use of cognitive methods were all shown to be affected by their level of prior achievement. Positive effects on academic performance were seen as a result of the autonomous motivation's indirect effect on critical thinking. A student's academic performance would suffer if their motivation was strictly controlled. Overall, their results imply that students who are self-motivated have higher academic outcomes and are more likely to use critical thinking to solve problems.

It is common knowledge that motivated people are effective second language (L2) learners (Alamer & Alrabai, 2022). Researchers in second language acquisition have followed suit by investigating the ability of several motivational components to predict successful language acquisition. However, this viewpoint seems to disregard accomplishment evaluation as a potential predictor of future motivation.

Self-Regulation and Academic Performance

The current study reviewed literature on the relationships that exist between self-regulation and academic performance. Despite widespread agreement on the value of motivating learners to have their own strategies for managing their own learning, Irvine et al. (2020) note that relatively little research has been conducted into the relationships between students' entry characteristics, the self-regulation, and their subsequent academic performance. Academic performance is a key indicator of students' capacity to apply what they have learned; thus, the competences of self-regulation and collaborative learning are particularly crucial. Due to this, Lim et al. (2020) undertook research to examine the effect of Self-Regulated-Learning and peer learning on academic performance. An online questionnaire was employed, using items adapted from pre-existing validated instruments. The hypothesized model's interrelationships were investigated using Structural Equation Modelling (SEM). The data revealed that students' social learning capacities greatly affected their use of SRL techniques and had a beneficial impact on their academic performance.

Kaur et al. (2018) examined how self-regulation affects academic achievement. Self-control was vital to respondents' academic achievement, the research showed. Harding et al. (2019) claim that self-regulated learners get the most out of education, however research have found conflicting results. Harding et al. (2019) found that self-regulated learning improves academic performance and reveals grade- or age-related disparities. Australian fifth- through eighth-graders completed self-regulated learning surveys and a maths or reading comprehension test with one- to five-point answers. Every test has been psychometrically tested. Self-regulated learning was highest in standardised test-takers.

Entry Behaviour and Learner Motivation

Also, the study reviewed literature on the relationships that exist between entry behaviour and learner motivation. The first study reviewed noted that the link between motivation and academic accomplishment is bidirectional, such that academic achievement is also a substantial antecedent of academically relevant motivational components such as self-concept and self-efficacy (Schober et al., 2018; Rodrguez et al., 2019). According to these studies, students' low academic outcomes are the result of a spiral in which they face repeated learning setbacks not so much because of their talents as their lack of drive. Students who perform better prior to their entry into the secondary schools have a high perception of competence and are thus highly motivated when it comes to their studies. Those who do not perform well have a low sense of competence and thus have low drive leading to poor academic outcomes which means that prior achievement to secondary level is important for learner motivation and the resultant academic performance.

Also, a research by Rodrguez et al. (2019) was to examine whether or not students' intrinsic motivation toward homework mediates or modifies the link between past accomplishment and the homework engagement factors. The findings revealed that past accomplishment had a significant, although un-moderating, influence on the three factors of homework engagement (time spent, time management, and amount of teacher-assigned homework done) via the mediation of intrinsic motivation. With the motivation arrived at from past accomplishment (pre-entry behaviour), students are more likely to perform better in their studies. They are more inclined to focus better and on all aspects of their studies leading to enhance performance.

Entry Behaviour and Self-Regulation

The current study reviewed literature on the relationships that exist between entry behaviour and self-regulation. According to Hetherington et al. (2020), the capacity to regulate one's own emotions, conduct, and attention is known as self-regulation. Song et al. (2016) investigated the impact of students' prior knowledge, ability to self-regulate, and level of desire on their success in advanced multimedia learning environments. The results of the structural model indicate that the prior knowledge of medical students positively influences their performance- and goal-oriented learning strategies. The students' capacity for self-regulation had a clear, favorable impact on their final grades. Students with adequate prior knowledge from their former level of education are more likely to have enhanced self-control and organization in their studies at the next level for enhanced performance.

According to Ashaeryanto et al. (2017), Effective and efficient learning is thought to be affected by factors such as student entrance criteria, intrinsic drive to learn, and cognitive techniques for doing so. The aim of their research was to evaluate the effects of the three different admissions criteria used by Halu Oleo University, Kendari, on the academic motivation, study habits, and performance of students registered in the School of Medicine. Students' success was related favorably to their learning styles, levels of intrinsic drive to learn, use of effective study techniques, and overall admissions rates. It can thus be inferred from this study's results that students who pre-entry results are high have a high internal drive to do well in their studies. They are therefore highly self-regulated and organized in their learning which enhanced their academic performance.

Conceptual Framework of The Study

Based on the concepts and the review of extant literature on the subject, this section presents a conceptual framework that depicts the research constructs: entry behaviour, self-regulation, learner motivation and academic performance and the relationships that exist amongst them. All of the study's hypotheses are represented in the framework.

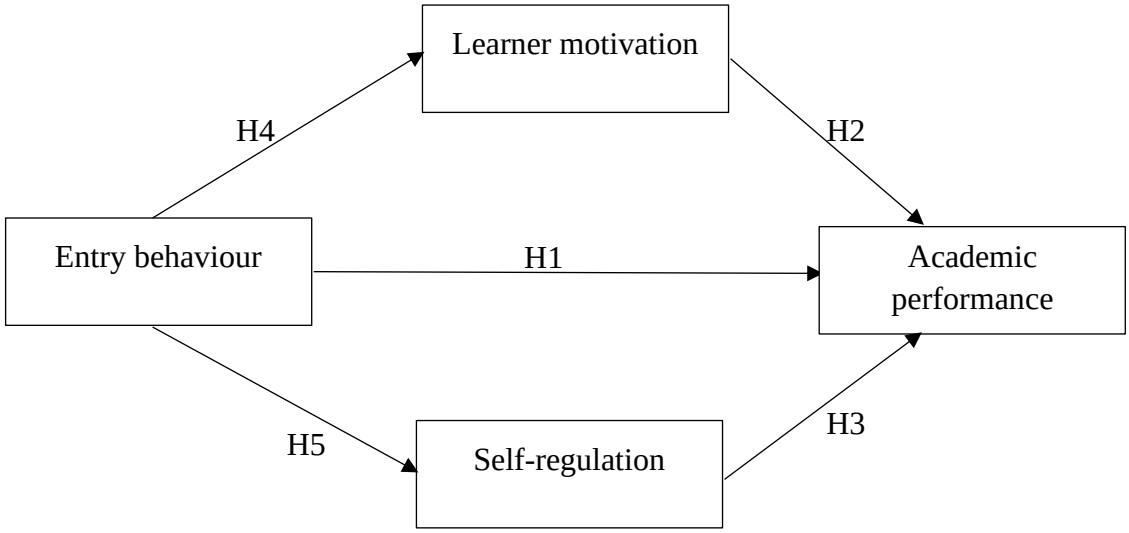

Figure 1. Conceptual Framework
Source: Author's Construct (2022)

From figure 1, the independent variables are learner motivation, entry behavior and self-regulation while academic performance is the dependent variable. The hypotheses (H1-H5) demonstrate the relationships that exist between the main variables in this model.

METHODOLOGY

Research Paradigm

A research paradigm is a theoretical framework that explains the motivations and methods behind a specific line of study (Park et al., 2020). The research employed positivism as a result of the study's objectives (Johnson et al., 2018). According to Popovici (2022) and Johnson et al. (2018), positivism is founded on Auguste Comte's work and advocates realism, objectivity, and scientific interpretations. Quantification and statistical analysis and interpretation are fundamental to the positivist perspective.

According to Park et al. (2020), positivism in research involves the use of procedures that build and explain relationships between variables. Positivism's emphasis on impartiality and avoiding the researcher's prejudices is one of its many excellent characteristics.

Positivism has the ability to produce repeated, widely applicable results (Shah et al., 2018). However, it does have its detractors. Positivism is a philosophy based on deductive reasoning and intimately linked to hypotheses that validate or reject theoretical assertions (Behfar & Okhuysen, 2018).

Research Approach

The method utilised to collect adequate data for scientific investigation is known as the research approach (Pandey & Pandey, 2021). The suitable methodology for conducting this study is determined by its research objectives (Dźwigoł, 2018). This study utilised a quantitative methodology. Ability to collect adequate data for evaluating and comprehending numerical results from quantitative research methods is a crucial factor when selecting a research

method (Abutabenjeh & Jaradat, 2018). Given the study's objective, research premise, and research questions, a quantitative technique is preferable over a qualitative one.

The objective of this research was to analyze the association among learner motivation, entry behavior, self-regulation and performance of first year elective IT students; hence, a quantitative technique was employed. This is due to the fact that quantitative approaches emphasize the use of statistics to analyse correlations and causation (Deeks et al., 2019). This study employed a quantitative methodology, allowing for a more objective assessment of the findings. Since the quantitative strategy encourages the use of traditional statistical procedures, such as descriptive statistics and regression, this method has also gained popularity. This research technique was conducted to gain a deeper understanding of the issue at hand.

Research Design

Depending on the applied approach, a suitable study or research design might be determined (Creswell, 2014). Creswell (2014) recognises qualitative, quantitative, and mixed research methods as the three most prevalent methods. Analyzing the relationship between learner motivation, entry behaviour, self-regulation and performance of first year elective IT students required the use of quantitative approaches and objective data. Since this was a quantitative investigation, an explanatory research design was used. The explanatory design provides scientists more control over their experiments (Sharma et al., 2022). When one has a complete comprehension of a topic, as supplied by the explanatory framework, it is simpler to generalise outcomes (Creswell, 2014).

Study Area

The research was carried out in the Kibi Technical Institute of Ghana. Kibi Technical Institute is in the Eastern Region of Ghana in the town of Kibi. The institute was founded in September 1978 with programmes such as carpentry and masonry. The institute later added other program such as general electricals, motor vehicle mechanics, computer hardware, etc. Kibi as a Technical Institute, was selected for this research as most of the other secondary schools in Ghana seldom have elective ICT as an option for students. This therefore makes this study area appropriate for the achievement of the study objectives.

Population

Every investigation is predicated on a topic that collects data from which the study is developed. The elements or individuals of a study that have comparable properties or characteristics make up the population, as defined by (Mohajan, 2018). The population, as defined by Stratton (2021), is the entire set of events from which a representative sample is drawn. Based on the above descriptions, the study's population comprises all first-year students of the Kibi Technical Institute of Ghana. The inclusion criteria are form one (1) students who are doing ICT elective subjects. All others who do not take this subject as an elective are excluded from the study's population. Kibi Technical Institute of Ghana has one hundred and forty-four (144) form one ICT students as at 2022/2023 Academic year.

Sampling Procedure and Sample Size

Sampling is a method for generalising from information gathered about a subset of a population to that of the entire population (Rahi, 2017). Probability sampling and non-probability sampling are the two most used approaches to studying populations. It is hard to accurately estimate the probability of selection when using a probability sampling technique like this one (Rahi, 2017). When using a non-probability sampling method, it is impossible to get an accurate estimate of the likelihood of selection because some affiliates of the population have no possibility of being chosen at all (Omeihe, 2021). This research utilised a non-probability sampling method. Examples of non-probability sampling methods include quota sampling, self-selection, snowball sampling, and purposive sampling (Berndt, 2020).

Statistical methods are utilised by certain quantitative researchers to identify the "proper" sample size (Lakens, 2022). This is founded on the idea that the sample size may be computed scientifically if precise data is supplied in a way that minimises, accepts, or anticipates sampling errors. Lakens (2022) claims that statisticians and social scientists utilise a variety of sophisticated methods to calculate sample size. A primary data collection tool was utilised to obtain information from 100 respondents from first-year ICT students at Kibi Technical Institute using purposive sampling technique. The research reached these students to fill out the questionnaires using a purposive sampling technique.

RESEARCH RESULT

Table 1. Descriptive Statistics of the Main Construct

Indicator	Minimum	Maximum	Mean	Std. Deviation
Entry Behaviour	2.000	5.000	5.660	1.465
Learner Motivation	1.000	5.000	3.225	1.373
Self-Regulation	1.000	5.000	3.384	1.284
Academic Performance	1.000	9.000	5.409	1.306

Source: Field survey (2023)

Table 1 discusses the descriptive statistics of the main constructs, "Entry Behaviour, Academic performance, Self-Regulation, Learner Motivation". From the table, it is shown that the indicator with the highest mean is "Entry behaviour". It has a mean of 5.660 and an SD of 1.465. The variable with the second highest mean is "Academic performance". It has a mean of 5.409 and an SD of 1.306. The variable with the third highest mean is "Self-regulation". It has a mean of 3.384 and an SD of 1.284. The variable with the lowest mean is "Learner motivation". It has a mean of 3.225 and an SD of 1.373. The minimum and maximum scores for each subject range from 1.0 to 5.0.

DISCUSSION

The objective one (1) of the current study assessed the effect of entry behaviour on the academic performance of first year ICT students in senior high school, and it was reported that entry behaviour had a positive but insignificant effect on the academic performance of first year ICT students. This implies that while entry behaviour may have some influence on academic performance, it may not be the sole determining factor.

The findings are at odds with earlier research by Roşeanu and Drugaş (2011), who looked at the impact of entrance requirements on university students' academic performance. According to their research, high school grade point average (GPA) was a reliable indicator of academic performance across a range of topics. To be clear, Roşeanu and Drugaş (2011) looked at psychology students in a university context, whereas the current study concentrated primarily on first-year ICT students.

Another relevant study conducted by Aciro et al. (2021) explored the association between high school scores and subsequent academic performance in college. Their comprehensive review of existing literature revealed mixed associations between entry grade levels and academic performance among university freshmen. The variations in findings across different studies highlight the complex nature of the association between entry behaviour and academic performance, which may be influenced by various contextual factors. Considering the present study's findings of a positive but insignificant effect of entry behaviour on academic performance among first-year ICT students, it is important to consider other factors that could potentially influence academic outcomes. Further research is warranted to delve deeper into the specific factors influencing academic performance in the context of ICT education, allowing for more targeted interventions and support strategies to enhance student outcomes.

The objective 2 of the current study assessed the influence of learner motivation on academic performance of first year ICT students, and it was reported that learner motivation had a positive but insignificant effect on the academic performance of first year ICT students. This result does not align with previous research conducted by Manganelli et al. (2019) and Alamer and Alrabai (2022). According to Manganelli et al. (2019) students' level of prior achievement played a significant role in the relationship between motivation and academic performance. While Alamer and Alrabai (2022) found that learner motivation is associated with successful language acquisition.

The third objective of the current study evaluated the effect of self-regulation on first-year ICT students' academic performance. The study's conclusions showed that self-regulation had a statistically significant and positive effect on first-year ICT students' academic achievement. This result is in line with studies by Li et al. (2018), Kaur et al. (2018), Sahranavard et al. (2018), El-Adl and Alkharusi (2020), Lim et al. (2020), and Li et al. (2018). While students at public colleges did not, Sahranavard et al. (2018) discovered a strong correlation between self-regulation and academic success. The researchers came to the conclusion that teaching children to self-regulate would improve their academic achievement. Therefore, in order to enhance students' academic

performance and their capacity for self-regulation, that foundation should be used as a starting point.

Additionally, Kickert et al. (2019) showed that the ECS policy improved motivation and self-regulation, and intrinsic motivation was linked to academic achievement. Harding et al. (2019) found a positive association between self-regulated learning and academic performance across different grade levels in Australia. The study's findings highlight how crucial self-regulation is in influencing first-year ICT students' academic performance. To enhance students' academic success, educational institutions and policymakers can implement targeted interventions that focus on promoting and improving self-regulatory skills. These interventions may involve supporting students in developing effective study habits, time management techniques, and effective learning strategies.

Also, objective 4 of the present investigation evaluated the impact of entry behaviour on the motivation of first-year ICT students. The findings indicated that although entry behaviour had a positive influence, it was not statistically significant in enhancing the motivation of first-year ICT students. This finding is inconsistent with these studies: Schober et al. (2018); Rodrguez et al. (2019); and Manganelli et al. (2019). This underscores the importance of promoting student engagement, curiosity, and intrinsic motivation within the educational setting.

To foster a sense of ownership and intrinsic motivation among first-year ICT students, it is recommended that educational institutions and policymakers adopt student-centered teaching approaches, incorporate real-world relevance into the curriculum, and encourage autonomy and self-directed learning.

Finally, the fifth objective of the current study aimed to investigate the influence of entry behaviour on the self-regulation of first-year ICT students. The results revealed that entry behaviour had a non-significant and negative influence on the self-regulation of first-year ICT students. This finding is inconsistent with these research articles: Song et al. (2016) and Ashaeryanto et al. (2017) who found otherwise. The findings imply that students' BECE results may not affect their self-regulation skills. Regardless of admission behaviours, first-year ICT students should be taught self-regulation skills. Academic success depends on self-regulation—setting objectives, monitoring progress, and using effective study strategies. Educational institutions can empower learners to take hold of their learning and improve academic achievement by supporting, guiding, and resourceing self-regulation abilities.

CONCLUSIONS AND RECOMMENDATIONS

The study looked into how first-year ICT students at Ghana's Kibi Technical Institute performed academically in terms of entry behaviour, learner motivation, and self-regulation. In order to improve the academic performance of first-year ICT students at the Kibi Technical Institute of Ghana, the study's findings have significant implications for educational institutions and policymakers in the field, urging them to reconsider admissions standards and give greater priority to the development of self-regulation skills.

The study found that entry behaviour, specifically measured through BECE results, had an insignificant impact on the academic performance of first-

year ICT students at the Kibi Technical Institute of Ghana. This challenges the common practice of using BECE scores as the sole criterion for admission, as they do not reliably predict subsequent academic success in the ICT program. The study suggests that educational institutions should adopt a more comprehensive approach to admission, considering factors like motivation, self-regulation, and individual aptitude for ICT, to better gauge students' potential for success in the program.

The study challenges the traditional reliance on entry behaviour as the sole predictor of academic performance among first-year ICT students at the Kibi Technical Institute of Ghana. It emphasizes the need for a more holistic approach to student assessment, considering factors like motivation and self-regulation. The findings suggest that while learner motivation had an insignificant impact on academic achievement, further investigation is needed to understand the reasons behind this lack of influence. These insights are crucial for educational institutions and policymakers to enhance support for first-year ICT students and improve academic outcomes.

Students in the study expressed uncertainties, lack of interest, and doubts about the relevance and value of their education, indicating a need for interventions to enhance learner motivation among first-year ICT students. To address these issues, educational institutions should focus on fostering intrinsic motivation and personal relevance in the learning process. Initiatives such as exploring interesting topics, engaging in meaningful projects, and connecting education to real-world applications can reignite students' intrinsic motivation and drive for academic achievement.

The study's findings suggest that external factors like future job prospects or financial stability do not effectively drive learner motivation among first-year ICT students. Instead, policymakers and educational institutions should focus on promoting internalized forms of motivation, such as recognized regulation and intrinsic regulation. This entails helping students understand the long-term benefits of their education, supporting their personal growth and self-esteem, and creating a positive and engaging learning environment. By doing so, a stronger sense of internal motivation can be cultivated, leading to improved academic performance among students.

The study underscores the importance of targeted interventions to boost motivation among first-year ICT students, despite motivation's limited direct impact on academic performance. Addressing students' uncertainties, fostering intrinsic motivation, and promoting internalized forms of regulation can create a supportive and motivating learning environment. This approach is vital for enhancing academic performance at the Kibi Technical Institute of Ghana and supporting students throughout their educational journey.

To improve self-regulation among first-year ICT students, educational institutions can implement interventions like study skills workshops, time management training, and guidance on effective learning strategies. These initiatives empower students to set clear goals, monitor their progress, and take ownership of their learning process. A supportive and encouraging learning environment that fosters self-reflection and self-monitoring can further

strengthen students' self-regulatory skills and contribute to their academic success.

Furthermore, the study's findings challenge the notion that entry behaviour significantly influences learner motivation and self-regulation among first-year ICT students. This highlights the need to create a motivational climate within academic environments that promotes engagement, interest, and intrinsic motivation among students. By implementing student-centred teaching approaches, incorporating real-world relevance into the curriculum, and providing opportunities for autonomy and self-directed learning, institutions can foster a sense of ownership and intrinsic motivation among first-year ICT students.

The study concludes by emphasizing the significant impact of self-regulation on the academic performance of first-year ICT students. It suggests that promoting and enhancing self-regulatory skills through targeted interventions can help students develop effective study habits, time management, and learning strategies. Furthermore, addressing students' motivation and fostering a positive learning environment can strengthen self-regulation, leading to improved academic performance at the Kibi Technical Institute of Ghana.

ADVANCED RESEARCH

Based on the methodology and findings of the study, several suggestions for further research can be proposed to expand the knowledge in this area. These suggestions aim to address the limitations of the current study and explore new avenues for understanding the relationship between entry behaviour, self-regulation, and academic performance of first-year ICT students at the Kibi Technical Institute of Ghana. Conducting a longitudinal study can provide valuable insights into the development and stability of self-regulation skills over time. By tracking first-year ICT students throughout their academic journey, researchers can examine how entry behaviour and self-regulation evolve and interact with academic performance in subsequent years. This longitudinal approach will offer a more comprehensive understanding of the long-term effects and potential changes in these variables.

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