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ACADEMIC COMPETENCE DIFFERENTIALS BETWEEN 16 YEARS BELOW AND 16 YEARS ABOVE ADMITTED INTO THE UNDERGRADUATE PROGRAMMES OF THE UNIVERSITY IN OSUN STATE, NIGERIA

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Abstract
This study examined the influence of admission age on the academic competence of first-year university students in Osun State, Nigeria. The objective was to determine whether significant academic competence differences exist between students admitted below the age of 16 and those admitted at 16 years and above. A descriptive survey design was employed. The population comprised first-year students from Obafemi Awolowo University and Osun State University. Using Yamane's formula, a sample of 382 students was selected through simple random and convenience sampling across six faculties. The Academic Competence and Admission Age Questionnaire (ACAA-Q) was used for data collection. Instrument validity was ensured through expert judgment, while the reliability coefficient obtained via Cronbach's alpha was 0.83. Findings indicated that academic competence among students varied across performance classifications, with many demonstrating high academic achievement. However, no significant differences were observed in academic competence between those admitted below 16 years and those admitted at 16 or above, suggesting that age at entry does not independently predict academic success. Based on these findings, the study recommended that even though academic capability is essential, universities are advised to adhere to the stipulated admission age by regulatory bodies, as readiness for higher education is also tied to developmental maturity and Parents should be discouraged from encouraging class-skipping, as intellectual and emotional maturity often associated with age enhances students' academic performance at the university level.

Keywords: Academic Competence, Admission, Undergraduates. Universities.

Introduction

The variation in the academic achievement amongst the undergraduate students who were admitted to universities below the age of 16 years and those admitted above 16 years of age has become a very sensitive and controversial issue. There is not much literature on the admission age as a factor which has been explored empirically but there are related issues. An area of research that relates to this subject matter is age and educational achievement. For instance, Elacqua, Martínez, and Santos (2011) investigated the correlation between age of the university students and performance in their academics. The implies results revealed that old students were likely to have better academic results compared to the young students, which consequently supported the idea that maturity and other life experiences can enhance academic ability. Some studies have concentrated on the consequences of early or delayed enrollment in school. For instance, Bedard & Dhuey, (2006) research of the impacts of starting school late discovered no significant difference in students' educational achievement compared to peers who began schooling earlier than them. It is impossible to overemphasize on the factors of cognitive readiness to learn at any level of academic learning. Cognitive theories suggest that as people grow through various stages they acquire some cognitive abilities and skills to enable them to pursue academic activities.

Furthermore, the phenomenon of ''academic redshirting'' has also been discussed in the literature. Red shirting in academic context means the intentional delay of enrollment of a young child in kindergarten or school in order to extend the time of growth and development. Bedard and Dhuey (2016) and Elder and Lubotsky (2019) have looked at the consequences of delayed school entry and observed possible positive outcomes for achievement in subsequent years. The argument that older pupils have an initial advantage is supported by research findings of Lubotskya and Kaestner (2016). A study on the gender and age differences focused on the American kindergarteners found that a child with a median age of 5. 6 years possess better reading and math skills than the children with a median age of 5. 2 years. This benefit was also linked with increased identification of gifted and talented students (Huang, 2014). This might be very well be due to cognitive development which is age related. Hence as the child ages, he/she gains more advanced features of executive functioning like attention, working memory and self regulation, that is crucial for academic success (Coldren, 2013). According to Lubinski (2010), intelligence scores are strongly correlated with academic achievements. Higher intelligence scores typically predict better academic performance, as individuals with higher cognitive abilities tend to excel in educational settings. This relationship suggests that intelligence plays a crucial role in academic success, influencing the ability to understand, process, and apply information effectively.

Also, older children may have better social emotional developmental status and this results into better behavior and focus in the classroom (McEwan & Shapiro, 2008). But more specifically we could notice that, the differentiation between admission age does not decrease over time. Cascio and Schanzenbach (2016) also pointed out that though admission age has positive association at the beginning with the students' academic achievement but it hardly have any effect on high school or the post secondary schooling or employment outcomes. The issue of motivation, study skills, and familial income is a much stronger predictor to the lifelong achievement (Black *et al..,*. , 2011). However, carrying out the entrance age policy that addresses only the age of students when they join an institution could also lead to some undesirable effects. Both May *et al..,* (1995) and Quinlan (1996) undertook works that provided focus on the need to demystify individual readiness and note that success cannot be solely accredited to age. Admission decisions should

take into account the varying rates of maturation in children, as well as aspects such as social and emotional development, cognitive aptitude, and home environment. Additionally, it is necessary to consider the cultural and socio-economic settings. Delaying the start of school in areas with limited resources may worsen existing disparities. On the other hand, there might be some cultures where early socialisation in the organized settings can be more beneficial for the learning process. The literature review underlines how this area of research is concerned with the need for flexible and constantly evolving approaches to school enrolment.

Approaching the concept with numerous criteria defining an individual's readiness for learning, including but not limited to cognitive and socio-emotional development or age might present a broader perspective. In addition, interventions during early childhood that prioritise enhancing fundamental abilities and fostering social-emotional well-being can provide all children, regardless of their age upon entry, with the necessary resources to succeed in the academic setting. To summarise, the impact of entry age on academic competence is a multifaceted interaction including cognitive, social-emotional, and environmental elements. Although there may be initial benefits, they do not ensure sustained success. In the future, education systems should use adaptable and personalised methods that prioritise student readiness and welfare over a fixed age requirement, guaranteeing that every child may achieve their maximum capabilities. However, one should notice that the admission age is just one of the factors influencing academic competence. Other factors include past learning experiences, children's learning and developmental characteristics, and personal characteristics and educational climate. Literature review in the ever-changing context of the academic process of the higher education system, the pursuit of excellent scholarly ideals acts as an orientational beacon that defines the undergraduate student's academic journey.

Therefore, this empirical review seeks to look at the comprehensive elements of Academic Competence in this group to discover the many factors that exist, tasks these factors, and shape as well as define the education competency of this group. When discussing academic competence, it is crucial to take into consideration note-taking, analytical thinking, time organization, and information processing, intelligence, and the ability to combine academic and social life. Such factors present useful information for educators, policymakers and researchers in the following ways, This assessment recognises the significant impact that higher education may have on transforming people and emphasises the crucial role of academic competence in developing individuals into well-informed, analytical thinkers who are prepared to tackle the difficulties of an ever-evolving world. Research conducted on academic competence was examined and analysed to emphasise the significance and necessity for undergraduates to possess strong academic skills in order to achieve success in their academic pursuits. Students should engage in a variety of ways to determine the most suitable one for their needs.

According to Peverly *et al*. (2007), note-taking is defined as the process of recording information from a lecture or reading material to help with comprehension and retention. It involves selecting and organizing important information, which aids in the learning process by reinforcing material and facilitating review and study. Dunlosky, *et al.*, (2013) conducted a comprehensive review of the effectiveness of various learning techniques. Their work, "Improving Students' Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology," did not explicitly address note-taking as an index of academic competence in detail. However, they did evaluate the effectiveness of different study strategies, including the

method of taking notes. From their review, it is evident that note-taking, when used effectively in conjunction with other strategies such as self-testing and distributed practice, can contribute to academic competence. They emphasized that the quality and the method of note-taking (such as summarization or the use of concept maps) can influence its effectiveness. They highlighted that students often benefit from combining note-taking with other effective learning strategies, such as self-explanation and elaborative interrogation, to enhance comprehension and retention of the material.

Some students may have a preference for using pen and paper, while others may prefer utilising digital tools. Just as certain pupils may prefer symbols and diagrams, others may prefer headings and bullet points. Multiple studies have confirmed the importance of analytical ability as a determinant of academic competence. For instance, in a study carried by Pang, Wong, Leung, and Coombes,*et al.*, (2018), they established that analytical capacity is one of the characteristics that determines success in higher education. According to Tella, (2017), students with higher analytical ability were observed to perform well in mathematics and science classes. A study claims that it is imperative to have good analytical skills to succeed both academically and in the academic career as well as the professional occupation. Subsequently, research has demonstrated the paramount importance of analytical aptitude in assessing academic achievement. Mafarja and Zulnaidi, (2022) found that students with greater analytical skills achieved superior results in activities involving critical thinking and problem-solving in many academic disciplines. Tuononen and Parpala (2021) discovered in their research that bachelor's students had a substantial level of academic competence that is crucial for thesis writing. Skills such as information analysis are vital in the process of producing a thesis.

Effective time management within and outside the classroom is one of the major components that dictate academic performance. Effective time management, planning and organisational skills are very important for the academic success and self growth (Ackermann et al 2018). According to Loeb and Hurd (2017) another study conducted among students from the University of Pennsylvania reveled that those students who were able to balance between their academic life social life and other co-curricular activities proved to be excelling in their academic performance, were able to manage time well and have good social connection. Eccles and Barber (2019) revealed that students who were involved in extracurriculum activities and had positive social relationships improved their mental health status and performance than their counterparts without such opportunities. Similarly, Masunaga,*et al.,* (2023) observed that students who engaged themselves in various co-curricular activities, whether they were related to their area of specialization or their career goals or not, performed better on academic assessments, and possessed higher chances of completing their courses on time as compared to the students who did not engage themselves in co-curricular activities. It was also established that only those students who maintained their time table for school work, other activities, and other responsibilities had higher motivation, better performance as well as psychological well-being as compared to those who could not adhere to efficient time management. Peper, Wilson, Martin, Rosegard, and Harvey (2021) conducted a study among college students and learned that time management skills positively influenced performance.

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In a separate study, Tuckman, (2003) examined the impact of time management on the academic performance of college students. This led to a realization that those students who practiced efficient time management in the course of their study received better CGPAs than the others. Among the recent studies is that of Ye *et al..,* , (2021) which aimed at determining the associations between time management, academic procrastination among college students. The research also showed how optimising students' work schedule for the highest efficiency enhanced performance and reduced tendencies towards procrastination. In a cross-sectional study by Alnahdi and Aftab, (2020), the purpose was to establish the relationship between time management and Korean university student academic performance. The participants also showed that adopting better time management attributes directly lead to increased percentage point averages and decreased academic stress. Proper time utilization is one of the most important factors of academic performance that can greatly determine academic achievement and achievement. Improving working with time can allow the student to improve performance, decrease level of stress, become efficient and achieve academic goals. Scholars perform a study involving current literature and findings to examine the relationship between Information Processing Skills (IPS) and academic performance. Another study by Seo, Shen, and Benner *et al.,* (2019), established the relationship between IPS and the academic performance of middle college children. The study was also in a position to establish a relationship between IPS and academic achievement as indicated by scores in reading, arithmetic and science tests.

The researchers also identified students' motivation and self-regulated learning as facilitating the link between IPS and academic achievement. Ramos and Sifuentez (2021), further explains the significance of the current study to establish a link between IPS and academic achievement for college learners with learning disabilities. The research observed that there is a positive relationship between IPS and academic competence of the student based on the performance, dropout and graduation levels. This paper showed that there is a significant relationship between IPS and, academic aptitude in the students' self-efficacy and self-determination scores. Dietrich et al. (2023) hold another research study aimed at determining the mechanisms that exist between IPS and academic performance among university students across

the Netherlands. The study revealed a positive association between IPS (intrinsic Psychological States) and academic competency, as measured by GPA. Furthermore, this correlation was more pronounced among students who reported using more effective learning strategies. Chen, Tang and Chen (2020), conducted a study examining the correlation between IPS and academic achievement in Chinese university students. The study revealed a favourable correlation between IPS (Intrinsic Psychological States) and academic achievement, as measured by Grade Point Average (GPA.). Furthermore, study approaches and motivation influenced the relationship between IPS and academic success. The significance of intelligence in determining academic competence has been well recognised for a considerable period of time.

Academic competence is described as having academic mastery, which entails academic skills in reading, writing, and arithmetic; critical thinking, problem-solving, and attaining academic objectives. Studies have established the fact that intelligence is a consistent mediator of academic performance in any given course and at different levels of learning. This statement is to some extent correct as many academic competencies including analysis, creative problem solving and memory are believed to be underpinned by intelligence, which is considered as a core attribute. In the sphere of academic achievement, the characteristics that define the performance of university undergraduates include note taking, information processing, time management, information analysis, evidence of intellectual capacity, and balancing social and leisure activities.

Contemporary academic programs and their heightened demands make time management to be that one conductor that establishes the right pace to productivity. Juggling between time for academic obligations and time for other activities constitutes one of the skills that prepares an individual in as much as one is likely to tackle so many responsibilities. A balance of time factors that are synchronized and set off against each other forms the basis of sustained academic advantage. University life being more than attendance of lectures and use of text books, the numerous social relationships and extra-curricular activities are part of the university experience. Thus, the opportunity to manage academic commitments and have academic and social enjoyment and different activities contribute to the students' overall development. It promotes the interpersonal skills, emotional intelligence, and citizenship, and creates individuals who are sociable and ready for the world beyond lectures. In other words, the integration of these factors gives the picture of intellectual ability amongst college students. This is why educational institutions ought to embrace such talents, and provide a conducive atmosphere that propels students academically and otherwise, personally and professionally. Therefore, it should be admitted that there are numerous factors contributing to the general level of academic competency and successful studying, such as notes taking, analytical thinking, time management, efficient information processing, and harmonious social and extra-curricular life. Thus, emphasizing and developing these aspects, we are raising a generation of academics who are equipped for long and effective contribution to the changing world of academic and society. Consequently, it becomes pertinent to examine academic competence differentials between below and above 16years undergraduates in universities.

Research Question: The study was guided by one research question:
What is the level of university undergraduates' academic competence?

Hypothesis: One hypothesis was formulated and tested in the study:
There is no significant difference in academic competence between undergraduates admitted to universities at ages below 16years and those above 16years.

Methodology

The study adopted a descriptive survey research design. The population consisted of 8,464 newly admitted undergraduate students for the 2021/2022 academic session from the two public universities in Osun State. Specifically, 5,547 students were admitted into Obafemi Awolowo University, Ile-Ife, while 2,915 students were admitted into Osun State University, as obtained from the respective institutions' admission offices. The sample consisted of 382 undergraduate (256 from the Obafemi Awolowo University, Ile-Ife while 126 was selected from the Osun State University proportionately) from six faculties at Obafemi Awolowo University Ile-Ife, and Osun State University. The Yamane sample size formula was used to determine the sample size. Four faculties were randomly selected from Obafemi Awolowo University Ile-Ife while two faculties were selected from Osun State University, using the simple random sampling technique. A convenience sample technique was employed to choose 64 students from each of the four faculties(Education, Arts, Social Sciences and Science) from Obafemi Awolowo University Ile-Ife and 63 students each from the remaining two faculties(Health Sciences and Administration) from Osun State University, resulting in a total of 382 undergraduates in order to ensure adequate representation for the study.

Data were collected with the aid of an instrument titled: Differences in Academic Competence Questionnaire (DAC-Q) to elicit information from the respondents. The DAC-Q has three sections. The first section contained demographic information of respondents which contained seven items, the second section has five items which are used to elicit questions on the level academic competence using the respondents Cummulative Grade Point Average (CGPA) while the third section has 15 items which are used to measure the undergraduates' age differentials in academic competence in Osun State, Nigeria. Validity of the instrument was ensured by subjecting it to face and content validity via presentation of the research instrument to the supervisor and other two experts in the Department of Educational Management, Faculty of Education Obafemi Awolowo University, Ile-Ife. The instrument was subjected to a trial testing. Data obtained were analysed using Cronbach Alpha Statistics procedure and analysed with the aid of Statistical Package for Social Sciences (SPSS version 24). Correlation Coefficient obtained was 0.73 and was confirmed reliable and usable for the study. Data were collected for 2021/2022 academic session fresh university undergraduates across Osun State universities. With 100% return rate and for further analysis, percentage and the inferential statistical tool of t-test were used.

Results and Discussion

Research Question One: What is the level of university undergraduates' academic competence? To answer this question, respondents' responses were calculated and subjected to analysis. The results are as presented in Table 1.

Table 1: Level of University Undergraduates' Academic Competence

S/N	Class	Number	Percentage	Rank
1	First Class	60	15.7%	1st
2	Second Class Upper	220	57.6%	2nd
3	Second Class Lower	56	14.7%	3rd

S/N	Class	Number	Percentage	Rank
4	Third Class	46	12.0%	4th
	Total	382	100%	

Source: Field Survey, 2023

The findings reveal varying levels of academic competence among undergraduate students, as reflected in their CGPA classifications. A total of 15.7% (60 students) attained first-class honours, representing those with exceptional academic performance, critical thinking, and mastery of their disciplines. The majority, 57.6% (220 students), fell into the second-class upper category, indicating strong academic competence, consistent above-average performance, and dedication to academic success. Additionally, 12% (46 students) were placed in the third-class category. While they face academic challenges, these students demonstrate persistence and a willingness to improve. Overall, the distribution highlights a diverse academic landscape, with each classification reflecting different strengths and growth trajectories. The findings emphasize the importance of inclusive academic support to nurture students across all performance levels.

Hypothesis One: There is no significant difference in academic competence between undergraduates admitted to universities, at ages below 16 years and those admitted at ages above 16 years. To test this hypothesis, responses were calculated and analysed using t-test. The results are presented in Table 2.

Table 2: Admission Age Differentials and Academic Competence

Variable	N	Df	F-value	t-value	p-value	Decision
Age Differentials & Academic Competence	381	379	3.84	-0.70	.651	Not Significant

Source: Field Survey

The analysis indicates no statistically significant difference in academic competence, measured by CGPA, between students admitted below age 16 and those admitted at 16 years or older. Levene's Test for Equality of Variances ($F = 3.835$, $p = .051$) shows no significant variance difference, and the independent samples t-test ($t = -0.701$, $df = 379$, $p = .484$) confirms no significant difference in group means. With a mean difference of -0.07100 and a 95% confidence interval ranging from -0.27022 to 0.12822, the data suggest that admission age does not significantly impact students' academic performance.

Discussion on Findings

The Level of University Undergraduates' Academic Competence: The findings highlight the impressive academic competences of respondents, as reflected in the different CGPA classifications. A notable proportion of the students, 15.7%, attained First Class honours. These learners consistently perform exceptionally in their studies, demonstrating deep understanding, critical thinking, and a strong drive for academic excellence. Their achievements reflect the university's commitment to intellectual development and serve as a source of motivation for their peers. The majority of the students, 57.6%, fall into the Second Class Upper category. This group represents the largest proportion of the undergraduate population and reflects a commendable level of academic competence. These students are characterized by effective study habits, strong analytical

skills, and a consistent commitment to their academic goals. Their performance contributes significantly to the academic strength and intellectual culture of the university. Students in the Second Class Lower category, accounting for 14.7%, also display a satisfactory level of academic competence. Their efforts indicate steady engagement with their academic responsibilities and potential for growth when provided with appropriate academic support and motivation.

Additionally, 12% of the students are classified under Third Class. These students, despite encountering academic challenges, exhibit resilience and a willingness to improve. Their learning experiences point to the importance of support mechanisms in helping students overcome obstacles and succeed in their academic journeys. These patterns of academic competence suggest that many students are not only academically capable but also demonstrate maturity in balancing academics with other responsibilities. This aligns with the views of Kuh et al. (2018) and Tella (2017), who emphasized the role of time management and co-curricular engagement in student success. Students who effectively manage their time and seek guidance from mentors tend to perform better academically. This is further supported by Ackermann et al. (2018), Alnahdi and Aftab (2020), and Coldren (2013), who established the relationship between time management, intelligence, and academic performance. The ability of students to multitask and manage academic workloads concurrently reflects their intellectual abilities. Intelligence Quotient (IQ), as highlighted by Lubinski (2010), plays a significant role in academic competence, further underscoring the need for institutions to nurture both cognitive and non-cognitive skills to enhance student success across all classification levels.

Differences in Academic Competence between Undergraduates Admitted to Universities, at Ages below 16 Years and those Admitted at Ages above 16 Years

The study found no significant differences in academic competence between undergraduates admitted to universities, at ages below 16 years and those admitted at ages above 16 years. The study shows that their age of admission does not really have an effect on their studies, it also stated that learners who are admitted earlier than the stipulated admission age, are coping academically as much as those that are admitted at the later age. The study demonstrated a high level of the respondents' Intellectual Quotient irrespective of their age. This could be as a result of their exposure to learning from their young age which had equipped them with the needed weapons to tackle any academic stress. This is in consonance with Bedard and Dhuey (2006) study that found students who started school late had no different educational attainment compared to their colleagues who started schooling earlier than them. In agreement with this is the study of Cascio and Schanzenbach (2016) that found the initial academic benefits of admission age to tend to diminish by the time students reach high school or have limited influence on their post-secondary education and employment prospects. Factors such as motivation, study habits, and socioeconomic background have a greater influence on long-term academic success (Black et al., 2011). Moreover, implementing a uniform admission age policy can have negative consequences. May et al. (1995) and Quinlan (1996) conducted research highlighting the significance of individual readiness and asserting that success cannot solely be attributed to age.

This is on a flip side with an examination of American kindergarteners that revealed that older kids (with a median age of 5.6 years) exhibited superior reading and math abilities in comparison to their younger peers (with a median age of 5.2 years). This benefit was also associated with heightened identification as gifted and talented (Huang, 2014). Cognitive

maturation may help explain this phenomenon. As children get older, they exhibit more advanced executive function abilities such as attention, working memory, and self-regulation, which are essential for achieving academic achievement (Coldren, 2013). In addition, older kids may have enhanced social-emotional maturity, resulting in improved classroom engagement and participation (McEwan and Shapiro, 2008). University management should follow the stipulated admission age to the later irrespective of the students academic performance as the higher institutions required more than the development cognitive domain of the learners. On the part of the parents, grade skipping should be avoided a this is a great factor that contributed to students' early graduation from the high school as learners who followed the stages of learning religiously are not expected to have left high school earlier than 16year of age. The age stipulated for admissions is expected to be enough for learners to have been developed cognitively, psychomotively and affectionately for the higher institutions tasks ahead of them.

Conclusion

This study concluded that age is not enough as a factor to determine the academic competence of students. Other factors such as parental genes, parental socio-economic factors, environment, intellectual readiness and others are also responsible for the university undergraduates' academic competence in Osun State.

Recommendations

Based on the findings of this study, the followings were recommended:

i. That since academic capabilities are not only the required skills by universities, it also required readiness of the learners, which is rooted into the learners' age, universities are advised to follow the stipulated age by the admission regulatory body.
ii. Parents are to be advised to avoid class skipping for their children in order to allow the learners to be matured intellectually in order to enhance their academic performance while in the university.

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