Gender differences in academic buoyancy among first-year undergraduate university students

Peter J. O. Aloka
University of the Witwatersrand, South Africa

Abstract

First-year students at universities continue to experience adjustment challenges which are an indication of low academic buoyancy. Academic buoyancy is a student's ability to succeed amidst academic difficulties and setbacks in academic settings. This study examined the gender differences in academic buoyancy among first-year undergraduate students in one public university in western Kenya. Within the positivist research paradigm, the study adopted a cross-sectional survey research design. The sample size of the study comprised 213 first-year students, selected using a simple random sampling method. The Academic Buoyancy Scale was used to collect data. An independent samples t-test was used to test the hypothesis. The results indicate that there is a statistically significant difference in the academic buoyancy scores for males and females [$t(211) = -5.178$, $p < .001$], but the magnitude of the differences in the mean was moderate (eta squared=.113). Thus, the male first-year students registered comparatively higher academic buoyancy than their female counterparts. This implies that male students have better coping mechanisms for environmental stressors at the university as compared to their female counterparts. The study recommends that counselling staff at universities should develop gendered orientation programmes to enhance the academic buoyancy of female first-year students. Moreover, universities should develop more focused academic orientation and nurturing among all first-year students to uplift academic buoyancy in all the courses for which they are registered.

Keywords: gender differences; academic buoyancy; first-year; undergraduate students; university.

Introduction

Adjustment to Higher Education Institutions from secondary schools remains a significant challenge for most first-year students. Aloka (2022) reiterates that first-year students struggle to adjust to various aspects of the university environment, including their academic work. It is important to note that successful adjustment at university leads to good academic performance, psychological well-being, and involvement in the university's activities. However, students who do not adjust to university appropriately demonstrate poor or marginal academic performance, failure, and at times drop out (Aloka, 2022). It is recognised that students' well-being has been given much attention in the education system, because it is a significant element that is related to positive learning outcomes. Positive student well-being is defined as 'reduction in stress, enhanced experienced meaning and engagement in the classroom, and ultimately, heightened satisfaction with life' (Flinchbaugh et al., 2012, p. 191).

Student well-being includes aspects such as motivation, identity, self-esteem, self-efficacy, and self-regulation in the context of learning (Willis, Hyde and Black, 2019). It is reported that most students had low levels of well-being before the Covid-19 pandemic (Poots and Cassidy, 2020). The pandemic has continued to negatively affect students' well-being leading to suffering, frustration, discomfort, fear, loss, and other negative emotions and experiences. Capone et al. (2020) argue that low levels of well-being among students lead to more stress, loss of self-drive, negative self-efficacy, low academic performance in courses, low sense of belonging, and finally low academic buoyancy at university. Yildirim, Arslan and Wong (2021) argue that meaningful living protects from mental health issues through its positive impact on resilience. In related research, Paredes et al. (2021) argue that well-being and resilience protect students from the perceived threat and future anxiety they feel as a result of the Covid-19 pandemic. Thus, in countries with ongoing stressors due to the Covid-19 pandemic, students were able to develop high levels of resilience and well-being, which in turn protected them from mental distress. In another study, Rasheed, Fatima and Tariq (2022) reiterate that having meaning in life supported mental well-being during the Covid-19 pandemic and that effective steps should be taken to make the lives of students more meaningful and resilient.

The first-year level of study at university is widely known as the period in which students experience the most significant transition in higher education. Tinto (1988) reiterates that

the stress and sense of loss and bewilderment, if not desolation, which sometimes accompanies the transition to university can pose serious problems for the individual attempting to continue in university. Though most students are able to cope with the problems of adjusting to the social and intellectual life of the university, many find it measurably more difficult. The student's state of buoyancy becomes a very crucial intrinsic attribute in adjusting to new learning environments, helping them to overcome the challenges encountered. Buoyancy functions as an adaptive response to frequent, ordinary, and temporary setbacks and challenges in educational settings. It is the capacity to deal with current and ongoing challenges and demands by regulating attention, emotion, and behaviour adaptively and positively (Martin and Marsh, 2008a). Buoyancy is generally defined as an individual's ability to successfully overcome the setbacks and challenges that are typical of everyday life (Martin and Marsh, 2008b). When applied to the context of an educational setting, it is referred to as a student's academic buoyancy (Martin and Marsh, 2008a). Moreover, Martin and Marsh (2006) describe buoyancy as an adaptive construct associated with positive adaptive correlates, such as persistence and participation, and negative maladaptive correlates such as self-handicapping and disengagement. The academic buoyancy construct is set within a positive psychology context (Martin and Marsh, 2009). Academic buoyancy is positively related to a range of adaptive educational outcomes including enjoyment of university, class participation, academic self-efficacy, planning, persistence, control, and low academic and test anxiety (Martin, 2013).

Underpinning theories of academic buoyancy are arguments from positive psychology, which hold that the positive dimensions of individuals' lives are important for helping them to navigate the less positive or challenging dimensions (Martin and Marsh, 2008a). Moreover, Frederickson (2001) builds on theories of positive emotions, proposing that positive emotions and processes can act to broaden an individual's transient thought–action repertoires, as well as enhance one's potential to develop personal resources. Martin and Marsh (2008a) argue that a focus on academic buoyancy would thus build on strengths and emphasise proactive rather than reactive responses to challenges. Positive psychology fosters the development of positive qualities, for example, well-being, optimism, happiness, and determination, at both the individual level and within groups (Seligman and Csikszentmihalyi, 2000). Positive psychologists hypothesise that individuals have the capacity to flourish and achieve psychological growth through interactions that provide opportunities to address aspects of their lives that are not yet adaptive

(Frederickson, 2001). Martin and Marsh (2008a) conceptualised the academic buoyancy construct to describe students' ability in coping with daily or usual non-catastrophic challenges in the academic context.

One of the components that can help students in facing challenges, frustrations, and obstacles is the growth of the feeling of academic buoyancy. Academic buoyancy is considered as one of the components of mental well-being in many research systems. The feeling of buoyancy is a particular psychological experience in which people experience a sense of living. Sadeghi and Khalili (2016) add that the energy of buoyancy comes from the individual himself, from internal sources and not from external stimuli in the environment. In general, an internal sense of buoyancy is a significant index of mental health (Solberg et al., 2012), and academic buoyancy refers to positive constructive and adaptive responses to a variety of challenges and obstacles that are experienced in the field of education (Putwain et al., 2011). Academic buoyancy is defined as a student's ability to succeed when managing academic difficulties and setbacks in everyday academic settings (Martin et al., 2013) and it primarily focuses on bouncing back from daily, somewhat low, and mild adversities (Martin and Marsh, 2006). Thus, academic buoyancy applies to a greater number of students who may experience relatively frequent and ongoing frustrations and challenges on a daily basis compared to fewer students who may have more severe, chronic issues of underachievement. Measuring students' academic buoyancy is one effective method that helps understand and conceptualise students' well-being or survival in the education context (Martin and Marsh, 2006). Academic buoyancy is a significant element in assisting students to manage and face academic risks especially the risks which frequently and continuously occur in daily life (Martin and Marsh, 2009). Buoyancy provides learners with the capacity to negotiate the ups and downs of language learning and to overcome everyday adversities on the path to learning success (Yu et al., 2019).

Previous researchers have focused on several social and psychological factors as correlates of academic buoyancy among first-year students at university. However, the construct of gender in relation to academic buoyancy among first-year students in higher education contexts has received little attention. Feminist researchers define gender from a social perspective and emphasise the role of culture and society in the construction of human sexuality (Fausto-Sterling, 2000). In this study, gender is defined as the first-year students' own construction of themselves as either female or male or as both.

Theoretical framework

The theoretical framework adopted in this study include feminist theory and Weiner's Attribution theory. The theories are discussed as follows.

Feminist theory

This study was informed by the feminist theories embedded in radical feminism. This argues that sex and sexualities are defined on the bases of pleasure and desire, identities, practices, and domination and subordination, all of which cut across man/woman, heterosexual/homosexual, and sex/gender binaries (Disch and Hawkesworth, 2015). The theory further argues that the naturalness of sexed embodiment, gender identity, and heterosexuality are mistaken, and that sex, gender, and normative sexuality are political constructs, rather than natural givens, and vary cross-culturally and from one historical era to another (Disch and Hawkesworth, 2015). Moreover, the theory is reliably suspicious of dualistic thinking, which is any effort to divide the complex world into two dichotomous, opposing variables such as male and female (Cho et al., 2013). Thus, dualistic thinking generates hierarchies, as one factor in the stand-off achieves dominance over the other, naturalising prevailing power relationships and making them more difficult to challenge. Moreover, feminist thinking is generally oriented toward fluid processes of emergence rather than static entities in one-way cause-and-effect relationships (de Beauvoir, 2011).

This theory was relevant to this study because it challenges a dualistic thinking which generates hierarchies, and this contributes to power relationships, which eventually determines how each gender sees themselves capable of performing tasks. Since gender is also socially constructed and influenced by societal beliefs, this theory informed the present study because the first-year students indicated their gender as either male or female in the questionnaire, and this influenced their academic buoyancy at the university.

Weiner's attribution theory

This study was informed by Weiner's attribution theory. Attribution theorists analyse the perception of causality, or the judgment of why an incident occurred (Weiner, 1972). Attribution theory is formulated on the premise that the way an individual interprets the cause of a past event is likely to determine future behaviours (Weiner, 2010). In Weiner's

attribution theory, an individual engages in a causal search following success and failure events, with failure eliciting greater causal searches (Maymon et al., 2018). Therefore, the outcomes that are important, negative, or unexpected are proposed to elicit greater causal searches resulting in an attribution that can be classified on these three aspects. Maymon et al. (2018) reiterate that the feelings of guilt are proposed to stem from attributions indicating perceived personal control over one's failure experience, whereas failure attributions that are internal to the individual but personally uncontrollable result in feelings of shame. Moreover, feelings of guilt, unlike shame, have been identified as an activating emotion in motivation research (Maymon et al., 2018).

Weiner's attribution theory informed the present study because it argues that the way an individual interprets the cause of a past event is likely to determine future behaviours. Therefore, in relation to the present study, this theory informed the way the first-year students construct academic buoyancy among themselves. Therefore, the manner in which first-year students interpret their past academic events in the first semester determines the way in which they construct how they view their capacity to overcome academic struggles during the semester.

Literature review

Previous literature on gender's effect on academic buoyancy exists but with varied results. A key step in understanding academic buoyancy and the extent to which it is constructed by students is to examine the extent to which gender predicts it. For example, in earlier studies, Geddes and Konrad (2003) found that males react more unfavourably to negative feedback and they are less academically buoyant than female students. Martin and Marsh (2003) reported that male students are less buoyant when completing university tasks as compared to female students. However, a Martin and Marsh (2005) study of a different context, including students in public institutions, reported that females tend to have low academic buoyancy while males have higher academic buoyancy. Moreover, female students scored significantly lower on academic buoyancy as compared to male students. In another study, Greene and DeBacker (2004) indicated that female students' future expectations have become more similar to males in the career realm, although female students have also maintained their focus on interpersonal goals. Sadeghi and Khalili (2016) also report that male students have higher academic buoyancy than female

students. In addition, Datu and Yang's 2018 study indicated that male students scored significantly higher than female students on academic buoyancy. Moreover, Jahedizadeh et al. (2019) reported that there is not a statistically significant difference between males and females in terms of their academic buoyancy and its components. Malmberg, Hall and Martin (2013) reported that male students were more academically buoyant compared to female students. Martin et al. (2016) reported that male students tend to report higher levels of academic buoyancy than female students.

In another study Verrier et al. (2018) indicated that teachers rated females and those not facing adversity as more buoyant, but the opposite was the case for self-reports. Male students rated themselves as more buoyant, however, they were rated by teachers as less buoyant, albeit not significantly so. Nur (2017) reported that male students significantly rated lower goal valuations in their academic buoyancy as compared to female students. Martin and Marsh (2008b) reported that there are gender differences in buoyancy with males reporting significantly higher buoyancy than females in both personnel and student samples. Colmar et al. (2019) indicated that, relative to males, female students reported lower levels of reading and mathematics buoyancy. In another study, Mustafa (2014) showed that a statistically significant difference was found among males and females in academic buoyancy in favour of males. Martin (2013) reported that female students reported themselves as less academically buoyant than men. Putwain et al.'s 2011 study showed that female students reported lower academic buoyancy scores, while male students reported relatively higher academic buoyance scores. Pelch (2018) reported that female students had low academic buoyancy as compared to male students.

In Kenya, Olendo, Wawire and Mugambi's 2019 study revealed that there was no significant gender difference among the students in their academic buoyancy in classroom tasks. Martin et al. (2015) reported that gender has a significant effect on academic buoyancy, with female students significantly lower than males in academic buoyancy. Verrier et al. (2018) also reported that there is an inverse pattern when comparing male and female students' academic buoyancy, and that male students were more buoyant. In addition, Granziera et al. (2019) reported that gender is related to feelings of school belonging, suggesting that the male students in the sample were higher on academic buoyancy than female students. Fong and Kim (2021) revealed that there are significant gender differences in academic buoyancy, with female students scoring higher than male students. In contrast, Youngwon (2017) revealed no significant gender differences in

academic buoyancy among students. In addition, Yu et al. (2019) reported that there are no significant gender effects on academic buoyancy among learners because female and male students have similar levels. Similarly, Mawarni et al. (2019) showed that male students of science have higher levels of academic buoyancy than female. Moreover, Martin and Marsh (2020) reported that there is no significant difference between male and female students in terms of academic buoyancy. In addition, Mohamed and Majed, (2021) reported that there were no significant gendered differences in academic buoyancy among students.

Recent literature also indicates that students in Higher Education Institutions struggle with adjustment. For example, Anderson's 2022 study reported that students have higher levels of academic buoyancy at the beginning of the academic year, but this later decreases as the semester progresses. Eri et al.'s 2021 study at universities reported that most students had low academic buoyancy as it was hard for them to continue with their online learning when they had a bad experience with digital technology. In another study, Kabeer and Tewari (2022) reported that academic buoyancy is positively correlated with students' ability to adapt to the online learning mode. Most recently, Liu et al. (2023) have argued that buoyancy is shaped by the dynamic interaction between students and ecological systems. From the reviewed literature, most studies report significant gender differences in academic buoyancy among students. However, some studies report no significant gender differences in academic buoyancy among students. There are research gaps that emanate from the reviewed literature because few studies were on first-year students, a very crucial transitioning level at university. Therefore, this presents a research gap that was filled by the findings of this paper. It is realised that first-year students in Kenyan public universities strive to adjust to the new academic environment and that several of them drop out. This implies that the first-year students at public universities in Kenya report low academic buoyancy. The low academic buoyancy among first-year students at universities occurs in the forms of being challenged by new learning, teaching, and assessment and experiences of anxiety about academic work in general. However, there seems to be a paucity of research on the gender differences in academic buoyancy among first-year undergraduate students at universities. Therefore, this presents a crucial research gap that was filled by the present study.

Research hypothesis

The study examined the gender differences in academic buoyancy among first-year undergraduate students in one selected public university in Kenya.

The following research hypothesis was tested:

H_o: There are no significant gender differences in academic buoyancy among first-year undergraduate students in one selected public university.

Methods

Research design

The study adopted cross-sectional survey research design. Cross-sectional survey design can be considered a snapshot that gives a picture of what the researcher wants to study (Kerlinger, 1964). In a cross-sectional study, the investigator measures the outcome and the exposures in the study participants at the same time (Setia, 2016). The cross-sectional survey research occurs at one point in time; it helped to ensure that data was collected at once. This research design was helpful in guiding data collection from a big sample size of first-year students at a single point in time.

Participants

There were 213 participants which comprised 93(43.7%) male and 120(56.3%) female first-year students at one university in western Kenya. From a population of 2130 freshmen the final sample size was considered appropriate (Krejcie and Morgan, 1970). The sampled students were selected using a simple random sampling method. The students were sampled from the faculties of Education, Humanities, and Business. In the questionnaires, the students indicated their gender as either male or female. Thus, there was no student who classified themselves as both or neither of the genders. Moreover, their ages ranged from 17 to 30 years, with a mean age of 19.5 years (SD=1.5). Despite the fact that the age ranges were from 17-30 years, most first-year students were 19 years old, which implies that those in the younger and older age groups were very few and did not significantly affect academic buoyancy based on gender.

Research tools

The Academic Buoyancy Scale adopted from Martin and Marsh, (2008a) was used to ascertain the actual level of academic buoyancy of first-year students. The Academic Buoyancy Scale has four items which include: 'I am good at dealing with setbacks at university (negative feedback on my work, poor results')', 'I do not let a bad mark affect my confidence', 'I think am good at dealing with pressures that come due to university work', and 'I do not let stress from studies get me down' (p.54). The combined response on all the four items helped to ascertain whether students had high, moderate, or low academic buoyancy. The items are rated on a 1-7 scale where: Strongly Disagree (1), Disagree (2), Somehow Disagree (3), Neither Agree nor Disagree (4), Somehow Agree (5), Agree (6), and Strongly Agree (7). The participants chose a particular response from the 7-point Likert scale on their extent of agreement with each of the statements. The study employed Shapiro-Wilk's test (S-W) to examine the normality of the variables (Gravetter and Wallnau, 2000). In this study, the data on academic buoyancy demonstrated normal distribution given that the Shapiro-Wilk (S-W) of 0.941 (significance level of 0.101) was reported. The internal validity of academic buoyancy scale was ascertained using the Bartlett's tests for Sphericity and it was reported to be highly significant ($p < 0.05$). The Bartlett's test was relevant because it helped to evaluate whether variances are similar or equal in the sampled students. Thus, it was concluded that changes in the dependent variable are attributable to the independent variable. The reliability of academic buoyancy scale was ensured by using Cronbach's alpha and a value of 0.845 was reported. Cronbach's alpha was chosen to ascertain the reliability co-efficient of the academic buoyancy scale because there was a single administration of the tool. Oso and Onen (2013) recommends the use of Cronbach's alpha to establish internal consistency, noting that it is the most consistent test of inter-item consistency reliability for Likert-scaled or rating-scaled questionnaires.

Procedure

Ethical clearance for this research was obtained from the National Commission for Science, Technology and Innovation of Kenya (NACOSTI/P/16/55487/12452). Moreover, permission to conduct this research was obtained from the Academic Registrar of the selected public university in western Kenya. The researcher then made an appointment with the Deans of Schools to collect data from first-year students at the selected university. Out of the anticipated sample size of 220 first-year students who were selected for the

study, 213 of them agreed to participate. The first-year students were issued with the questionnaire to ascertain their academic buoyancy in the course of the first semester, after receiving their results on the first assignment in their courses but before the end of semester examinations. At this time, the first-year students had covered 75% of the semester's academic work. With the help of Deans of Schools, the 213 first-year students were proportionally sampled and assembled at the university assembly hall.

The aim of the research was explained to the students and they were issued with consent forms after which those who agreed to participate in the study signed them. In completing the questionnaires, the students declared their gender as either male or female. After signing consent forms, the students were issued with questionnaires to complete after which the researcher collected the questionnaires back. The students voluntarily consented to participate in this study, and this was ensured by using signed consent forms. The questionnaires were presented to first-year students from various faculties in different orders to nullify a systematic order effect. It took 45 minutes to brief students about the study, explain ethical procedures, and collect the data. After the students handed back the completed questionnaires they were debriefed.

Data analysis

The quantitative data from questionnaires was analysed using both descriptive and inferential statistics. The inferential statistics such as the independent samples t-test was used to examine the gender differences in academic buoyancy among the first-year students. The level of significance (p)-value was set at 0.05 level.

Results

Descriptive statistics: academic buoyancy

The study sought to investigate the gender differences in academic buoyancy among first-year undergraduate students. The study defined academic buoyancy as the ability of the first-year university student to overcome setbacks and challenges that are typical of the ordinary course of university academic life. It was conceptualised as a measure of students' capability to deal with day-to-day academic challenges. Gender was considered as the basic difference among the student respondents. Academic buoyancy was

measured using a 4-item self-report Academic Buoyancy Scale on a 7-point Likert scale. The items assessed the respondents' ability to bounce back from academic adversity. From the analysis of the participants' scores in the four items on the 7-point Likert scale, descriptive statistics including range, mean, standard deviation, skewness and Kurtosis were computed, as shown on Table 1.

Table 1. Descriptive statistics: academic buoyancy.

N	Mean	Std. Error	Std. Dev.	Variance	Skewness	Std. Error	Kurtosis
213	5.480	.0806	1.1768	1.385	-1.008	.167	.498

Level of significance is at 0.05

The results In Table 1 indicate that, in the range of 1 to 7, the mean for academic buoyancy among the sampled first-year university students was 5.48 ($SD = 1.18$). The distribution of the scores had skewness of -1.01 and kurtosis of .49. This was an indication that the distribution of buoyancy rating was moderately skewed to the negative suggesting that there were many students whose academic bouncy rating scores were higher than the overall mean. The kurtosis value of .498 exhibit tail data that were generally less extreme than the tails of the normal distribution, suggesting that the data was approximately normal. This implied therefore that academic buoyancy scores were sufficiently normally distributed.

Hypothesis testing on gender and academic buoyancy

The hypotheses were tested using independent-sample t-tests to compare the academic buoyancy scores for male and female respondents. Independent-sample t-tests were appropriate because the two variables used were gender (with females coded as 1, and males coded as 2) and academic buoyancy, being categorical and continuous, respectively. The scores of the dependent variable (academic buoyancy) were computed from frequencies of responses by computing mean responses per respondents. Mean response across a set of questions using rating scale responses in each item was computed to create a continuous variable, within an open interval of 1 to 7, that is suitable for the use of parametric methods, where high scale ratings implied high perceived level of academic buoyancy. The independent-sample t-test results are presented in Table 2.

Table 2. Gender effect on academic buoyancy level of first-year university students.

Gender	N	Mean	SD	SEM	*t*-value	Sig. level	Effect Size
Females	120	5.143	1.238	0.113	-5.178	.000	0.1127
Males	93	5.914	0.932	0.097			

Level of significance is at 0.05

The results presented in Table 2 give the summary of the results of independent-sample t-tests on gender differences in academic buoyancy among first-year students. The mean scores on academic buoyancy were calculated from the scores from the 4-items in the 7-point Likert questionnaire. From the independent-sample t-test results, male students had a comparatively higher mean (*M*=5.91; *SD*=0.93) in the academic buoyancy scale than their female counterparts (*M*=5.14; *SD*=1.23). This indicates that there were statistically significant differences in the academic buoyancy scores for males and females [*t* (211) = -5.178, *p* <.001], but the magnitude of the differences in the means was moderate (eta squared=.113). It is evident from the results that gender had an impact on academic buoyancy. This means that the study has proved that there was sufficient evidence to reject the null hypothesis which states that 'there are no significant gender differences in academic buoyancy among first-year undergraduate students'. As a result, the null hypothesis was rejected and it was concluded that there is a statistically significant difference in perceptions in academic buoyancy between genders among first-year university students, with male students registering comparatively higher academic buoyancy than their female counterparts. Gender accounted for about 11.3% of the variance in academic buoyancy scores among first-year university students. Cohen (1988) presents guidelines for interpreting effect size (eta squared value), so that: 0.01=small effect, 0.06=moderate effect, 0.14=large effect. In this regard, the eta squared value of 0.113 suggest that gender has a moderate effect on academic buoyancy among first-year university students.

Discussion

The study sought to examine the gender differences in academic buoyancy among first-year undergraduate students. The study reported that there were statistically significant

differences in academic buoyancy scores for males and females, but the magnitude of the differences in the means was moderate, with male students registering comparatively higher academic buoyancy than their female counterparts. This implies that students with high academic buoyancy either agreed or strongly agreed with each of the 4-items measuring academic buoyancy in the questionnaire, while the students with low academic buoyancy either disagreed or strongly disagreed in their response to the 4-items measuring the construct. The finding of the present study agrees with Datu and Yang's 2018 research which indicated that male students scored significantly higher than female students on academic buoyancy. Similarly, Verrier et al. (2018) also reported that there is an inverse pattern when comparing male students and female students' academic buoyancy, and that male students were more buoyant, as compared to female students. Colmar et al. (2019) also agreed that, relative to males, female students reported lower levels of reading and mathematics buoyancy. Moreover, Granziera et al. (2019) reported that gender is related to feelings of belonging, suggesting that the male students in the sample were higher on academic buoyancy than female students. Mawarni et al. (2019) showed that male science students have higher academic buoyancy than female science students. Fong and Kim (2021) revealed that there are significant gender differences in academic buoyancy, with female students scoring higher than male students. This finding also agrees with Weiner's (2010) attribution theoretical assertion that is formulated on the premise that the way an individual interprets the cause of a past event is likely to determine future behaviours.

However, the findings are contrary to that of Jahedizadeh (2019) who reported that there is not a statistically significant difference between males and females in their academic buoyancy. Moreover, a new study by Martin and Marsh (2020) reported contradictory findings to their earlier study showing that there is no significant difference between male and female students' academic buoyancy. Similarly, Mohamed and Majed (2021) reported that there were no significant gender differences in academic buoyancy among students. This finding can be aligned with de Beauvoir's (2011) thinking which argues that feminist theory is oriented toward fluid processes of emergence rather than static entities in one-way cause-and-effect relationships. On the basis of the discussion above, the present study has different findings from the ones which reported no significant effect of gender on academic buoyancy. The differences could be due to varied institutional support and other factors which could have provided the first-year students with different responses to the learning environment challenges, thus varying levels of academic buoyancy.

Conclusion and recommendations

This study concludes that gender accounts for significant differential levels in academic buoyancy among first-year students at university. The results imply that male students were more buoyant as compared to female students, an indication that they could have better coping mechanisms for academic challenges at university. Moreover, it could also imply that female students do not adjust well to the new learning styles that they experience as first-years at university. Therefore, gender accounted for a proportionate amount of the variance in academic buoyancy scores among the first-year university students in Kenya. This study is quite significant and it contributes to the body of knowledge in Education, Psychology, and Higher Education Institutions contexts. The findings of this research conclude that gender contributes to the academic buoyancy of first-year students at university as opposed to most previous studies that did not report significant differences in gender. This could be because the present study utilised a bigger sample size of students which made the results statistically stronger as compared to most reviewed studies which had smaller sample sizes of participants. The study provides insights and adds to the literature on adjustment among first-year students which is reflected by their buoyant nature, whilst most reviewed literature focused on other years of study. Moreover, the present study utilised a relatively bigger sample of 213 first-year students, which significantly increases its power, as opposed to some reviewed studies which had small sample sizes of participants. The findings of the study have great implications for counselling staff at universities. The counselling staff at universities should develop gendered orientation programmes to enhance the academic buoyancy of female first-year students. This is because female first-year students had lower academic buoyancy as compared to the male students, which implies that the former seems to struggle with adjustment at university as compared to the latter.

The study also recommends that university teaching and administrative staff should develop assessment programmes which could help enhance academic buoyancy among female first-year students. In addition, universities should develop more focused academic orientation and nurturing among all first-year students to uplift academic buoyancy in all the courses for which they are registered. Finally, Deans of students should provide holistic counselling programmes aimed at enhancing the academic buoyancy of first-year students with low levels of buoyancy.

Limitations of the study

In the present study, data was only collected in one single strand of measurement, and it does not examine the past or future states of academic buoyancies of first-year students. Therefore, future studies could adopt longitudinal designs to make comparisons of states of academic buoyancies among first-year university students over time.

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Author details

Peter J. O. Aloka holds a PhD in Educational Psychology from the University of the
Western Cape. He is currently a senior lecturer at the Wits School of Education, University
of the Witwatersrand, South Africa. He has published widely and supervised several
postgraduate students.

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