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# Academic integration in higher education: A review of effective institutional strategies and personal factors

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Globally, there has been a surge in international students, posing challenges to their host institutions. The review aimed to identify institutional strategies and personal factors that promote international students' academic integration. With an independent systematic review of titles, abstracts, and full texts, 64 studies were sampled and analyzed. The study presented findings through a narrative synthesis across all studies. The review results showed that there have been an increasing number of studies on academic integration over the last decade. Institutional strategies like staff and student interaction, student orientation programs, classroom organization, supervisory support, and learning communities are more effective in promoting healthy academic lives and the academic progress of students. Personal factors, which include financial status, language ability, and self-efficacy in students, were revealed to facilitate healthy academic lives and progress on campus. Prioritizing international students' welfare, providing language adaptation support, and increasing the accessibility of academic staff were suggested strategies for improving the academic lives of international students. The study also recommends that tertiary education systems and other stakeholders take these institutional strategies and personal factors into account when developing higher education policies. This will help international students have better academic lives and stay in school.

## KEYWORDS

academic integration, higher education, internationalization, progress, wellbeing

## Introduction

Internationalization of higher education programs has increased the mobility of international students at institutions of higher education around the globe (European Commission, 2015). For instance, the number of Erasmus students has increased from 1987 to 1988, when there were 3,244 of them, to 2013–2014, when there were 272,497. In 2013–2014, women had a larger percentage of 60.2% (European Commission, 2015). Internationalization is a fundamental indicator of the ranking of worldwide universities (Souto-Otero et al., 2013). It is evident that incoming and outgoing international

students are a sign of prestige and quality for many higher education institutions, while internationalization is a fundamental indicator of the ranking of worldwide universities. The increased number of international students in higher education has stimulated interest in the programs of host institutions (Li et al., 2010). This is related to these students' perceptions of multicultural support, communication difficulties, and the adaptation process (Kudo and Simkin, 2003).

Despite all the opportunities international students enjoy at their host colleges, they confront a variety of obstacles. Bracht et al. (2006) reported that international students encounter housing, administrative, and academic difficulties but also have poorer self-esteem when they choose foreign language courses without sufficient peer support. According to De-Andrés (1999), kids' self-esteem is dependent on the good or negative experiences they receive from their environment.

Again, their failure to interact with domestic students because of linguistic and cultural hurdles may cause homesickness and self-doubt over their intellectual abilities. Cacioppo and Patrick (2008) demonstrate that adaptation difficulties can cause loneliness. Many questions arise: (1) What institutional strategies are effective in promoting international students' academic wellbeing and progress on campus? (2) What personal factors facilitate academic wellbeing and progress on campus? The complete integration of international students at the institution must satisfy numerous academic and administrative system requirements (Rienties et al., 2012).

Kudo (2016) stated that it is vital to seek strategies that promote integration within the institution as well as strategies that facilitate the sharing of information during extracurricular activities. This is consistent with the finding that most interactions between international and domestic students take place outside of the classroom (Ward, 2001). In order to increase support and intercultural friendships in an international context, he emphasizes the importance of domestic and international students forming groups and using intercultural collaboration strategies. However, these friendship networks between domestic and international students will not improve their academic lives if they do not have a common language besides their native tongues in order to facilitate interactions through which knowledge can be transferred. Otherwise, linguistic obstacles may impede the integration process and the development of multicultural friendships and team spirit (Medven et al., 2013). According to Kudo et al. (2017), "when intercultural encounter causes anxiety and uncertainty, international students tend to return to their own cultural communities."

Currently, there are several studies that examine academic exchange programs and the mobility of international students as well as their benefits. However, little research has examined how to academically integrate these international students and which strategies are most effective. Even fewer have investigated

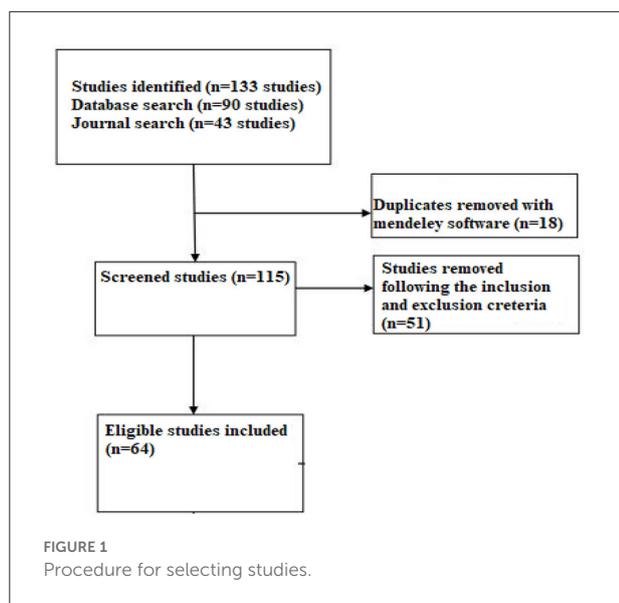
this topic in the context of higher education, where many international students struggle with academic integration. This study aims to examine this significant gap by expanding the understanding of these strategies within higher education and also, unearthing personal factors that mostly promote healthy academic lives and progress. This information can serve as a source of greater support for enriching the academic lives and progress of international students.

## Academic integration

Tinto defined academic integration as academic progress, cognitive growth, and having positive learning experiences (Tinto, 2015). He again argued that both personal and institutional strategies are equally responsible for adaptation in academic pursuit among students. These personal strategies include skills, abilities, and previous education, as well as students' goals. The institutional strategies include; admission criteria, academic standards, and organizational structure among others. The ascertainment of Tinto (2015) and Lakhali et al. (2020) seemed to suggest that when both the institutional and personal come into play, a conducive platform is created for students to easily imbibe and transfer knowledge among themselves and between academic staff. Students' ability to adapt to their academic environment influence their intentions to persist or dropout (Lakhali et al., 2020).

## Method

The systematic review looked at previous studies on academic integration of international students in tertiary education which were conducted in the last decade, and the strategies discovered to promote academic integration. Systematic reviews have a variety of advantages. They provide a clear and exhaustive assessment of the available evidence on a certain topic. In addition, SRs contribute to the identification of research gaps in our existing understanding of an area. They might draw attention to methodological issues in research projects that can be used to improve future work in the field and minimize bias (Eagly and Wood, 1994). Chalmers and Glasziou (2009) indicated that they can be used to identify problems for which the available data provides unambiguous answers, and hence no more research is required. In an attempt to achieve the review aim, we identified relevant studies, appraised their quality, and summarized the evidence by the use of explicit methodology. The systematic and explicit methodology distinguishes systematic reviews from traditional reviews and commentaries (Khan et al., 2003). This study examines the strategies that enhances international students' academic wellbeing and progress in tertiary education. In light of this, the study rigorously searched, gathered, synthesized, and reported selected literature from 2010 to 2021. The review



draws on empirical studies from databases, namely: the Web of Science database, Educational Resource information Centre (ERIC), Emerald, Science Direct, Wiley Online Library, and SAGE Journals. Studies were meticulously selected by searching for keywords such as “Academic integration,” “Academic persistence,” “Internationalization,” “Success,” “Completion,” “drop out,” and ninety (90) studies were collected from the above listed databases. The rigorous procedure followed in the processing of the data is presented in [Figure 1](#).

In essence, these terms are reported to have a strong connection with academic integration. This was followed by a second search using the same keywords in these journals: *Journal of Higher Education*; *Higher Education*, *Quality in Higher Education*; *Higher Education*, *Research and Development*; and *Studies in Higher Education*. From these journals, forty-three (43) more studies were added, making a total of one hundred and thirty-three (133). Following the inclusion and exclusion criteria, studies focusing on international students in higher education and studies conducted between 2010 and 2021, 115 studies were selected. The Mendeley software was further used to take out duplicate studies, resulting in sixty-four (64) studies. The inclusion and exclusion criteria were strictly followed to ensure that the sampled studies were free of selection bias and that the selected studies contained findings that offered a deep understanding of factors that promote academic integration among international students in tertiary education.

## Data analysis

The thematic coding technique was used to identify common themes concerning the strategies that promote

academic integration from the sampled studies. This was aided by a random effects model in the systematic review to synthesize effects across studies. A model used to give a summary estimate of the magnitude of effect in a meta-analysis that assumes that the studies included are a random sample of a population of studies addressing the question posed in the meta-analysis.

Thematic coding is a qualitative strategy of picking similar themes in a text ([Braun and Clarke, 2012](#)). The technique aided in the identification of common themes such as “staff and student interaction,” “student orientation program,” “teaching strategies,” “preparatory or pathway courses,” “Learning Communities,” “The Classroom Organization,” “Supervisory Support,” “Financial Status,” “Common Language Acquisition,” and “Self-efficacy.” These themes were then categorized under broader umbrella themes like institutional and personal strategies.

## Strategies that promote academic integration

### Institutional strategies

The results suggest that institutional strategies are key to promoting academic integration of international students. The review defines institutional strategies as the institutional characteristics that influence students’ academic integration. Most of the strategies gathered in various studies were among the institutional attributes (see [Table 1](#)). These strategies are discussed below.

### Staff and student interaction

The study revealed that international students adapt to tertiary programs when they get enough support from their institutions through frequent interaction with institutional staff. This creates a conducive atmosphere for international students to access help from institutional staffers, which enhances knowledge transfer. [Fergy et al. \(2011\)](#) highlighted the importance of staff knowing international students’ names, adding that the students were more academically entrenched when staff know them by their names. Also, research on student-faculty interaction by [Wirt and Jaeger \(2014\)](#) revealed that frequent meetings between international students and faculty staff improve learning outcomes. Another study claims that international students are more likely to drop out of their programs if they do not receive adequate support from their supervisors, lecturers, and administrative staff ([Willcoxson, 2010](#)). In addition, [Zaitseva et al. \(2013\)](#) found that international students praise their institutions because they feel supported by tutors and other staff members. Other scholars argue that teachers who build a good rapport with the learners produce a sound learning environment for international students ([Sidelinger and Frisby, 2019](#)). They also added that international

TABLE 1 Strategies found to promote academic integration.

Academic integration	Institutional strategies	Citations	Personal strategies	Citations
	Staff and student interaction	Willcoxson, 2010; Fergy et al., 2011; Mamiseishvili, 2012; Zaitseva et al., 2013; Wirt and Jaeger, 2014; Sidelinger and Frisby, 2019	Financial status	Perry and McConney, 2010; Adams et al., 2016; Snoubar, 2017; Jones et al., 2018
	Student orientation program	Collins and Dodsworth, 2011; Ganga and Masha, 2020; Morgan et al., 2020	English language ability	Kimmel and Volet, 2012; Liu, 2013; Song, 2013; Li, 2017; Li and Pitkänen, 2018; Crowther, 2019; Lee and Bailey, 2020; Mohamed and Bryan, 2020; Sung, 2020
	Teaching strategy	Zaitseva et al., 2013; Lee, 2017; Lakhali et al., 2020	Self-efficacy	Turner and Thompson, 2014; Wood et al., 2015; Hakyemez and Mardikyan, 2021
	Preparatory or pathway courses	Willcoxson, 2010; Bass, 2011; Arar and Masry-Herzalah, 2014; Amer and Davidovitch, 2020		
	Learning communities	Fergy et al., 2011; Smith, 2015; Garza et al., 2021		
	Classroom organization	Willcoxson, 2010; Tinto, 2015		
	Supervisory support	Cooper et al., 2010; Abiddin et al., 2011; Overall et al., 2011; Jones, 2013; McAlpine and McKinnon, 2013; Litalien et al., 2015; Winchester-Seeto et al., 2016; Gube et al., 2017		

students who can freely communicate with lecturers and faculty members may be able to reach out to them outside of the classroom and seek their assistance.

Mamiseishvili (2012) found that academic counseling services provided by faculties to international students improves their academic persistence. Academic counseling is the process in which schools offer support to students by assisting them make educational and career decisions. For instance, helping students in selecting courses, choosing a major, and utilizing opportunities like study abroad, summer schools and extracurricular activities (Bilodeau and Meissner, 2018). The Mamiseishvili study recommended the reinforcement of frequent interactions between international students and academic advisers.

## Student orientation program

Orientation is the first experience students gain when they enroll in university (Ganga and Masha, 2020). According to Collins and Dodsworth (2011), through this program, new students are welcomed onto the campus, intimated with school rules and regulations, courses, requirements for graduation,

etc. This program is found to promote academic integration in the work of Morgan et al. (2020). Based on the personal experience of one of the researchers in this current study, an orientation program he participated in during his first year at the University of Science and Technology of China offered him an understanding of what was required to graduate with a master's degree in public administration. In the orientation program, a staff who was an exstudent gave a speech on how to adjust academically for successful completion of the program.

This motivated him and eventually led to his completion of the program.

## Teaching strategies

The way teachers and students interact in the classroom and the institutional approaches used in the classroom are all part of the pedagogical strategy. Effective pedagogy leads to the academic integration of international students. This is highlighted and supported by the findings of Lee (2017) and Lakhali et al. (2020). In furtherance to that, Lee (2017) emphasized the need for teachers to create a friendly classroom

environment which will promote student-teacher and student-student interaction as a way to enhance knowledge transfer. This enhances knowledge transfer. These reveal that effective teaching and learning strategies used by lecturers tend to enhance student learning, hence strengthening their academic integration. Zaitseva et al. (2013) opined that timely provision of feedback to students by academic supervisors is found to enhance academic success. He further argued that timely feedback assists students in directing their time and effort toward learning what is useful and avoiding errors.

## Preparatory or pathway courses

Preparatory or pathway courses are considered a way to help international students from different socio-cultural backgrounds to integrate academically into their programs of study at their institutions (Arar and Masry-Herzalah, 2014). Bass (2011) emphasized the importance of providing academic preparatory assistance to international students because the majority of those enrolled in tertiary institutions face learning challenges, some of which result from language and communication barriers. A subsequent study by Amer and Davidovitch (2020) found that giving international students proper preparation, such as language course among others before the commencement of their programs at the university, enhances their confidence level, which translates to optimal academic integration. Willcoxson (2010) confirmed that new students may drop out if they believe they will not receive the necessary foundational support to begin their studies.

## Learning communities

These are academic groupings where learners exchange ideas and experiences and also acquire knowledge from teachers on expected outcomes (Shapiro and Levine, 1999). Smith (2015) found that learning communities are useful in getting students to study together and this leads to higher academic performance. In another study, Garza et al. (2021) found that the use of these learning communities assisted international students to socialize with one another and learn from each other. Interactions among students during meetings within these learning communities are thought to be beneficial in terms of academic persistence (Fergy et al., 2011).

## Classroom organization

Numerous studies have revealed that classroom structure affects learning among international students. In this review, we define classroom organization as arranging sitting positions in a way that students can easily interact with one another to

enhance learning activities. For instance, Tinto (2015) stated that students' sitting arrangements in the classroom affect their performance in various courses. A well-organized classroom can enable new students to easily adapt to the academic life on campus. A prior study recommended that university faculties must provide classrooms that encourage active participation among students (Willcoxson, 2010).

## Supervisory support

Scholars argued that most international graduate students' academic success depends on effective student supervision (Cooper et al., 2010; Winchester-Seeto et al., 2016). Overall et al. (2011) suggested that supervisors must encourage their international doctoral students to be patient, provide timely feedback, and guide them to complete their tasks. Other scholars maintained that student satisfaction, persistence, and academic achievement depend on frequent supervisor meetings and interactions, timely feedback on the task given, motivation, and encouragement (Gube et al., 2017). In their study, Abiddin et al. (2011) discussed the four skills required for effective supervision: communication skills, including the ability to listen and convey a sound response; the skill of recognizing when a student requires help and providing it; and having sound knowledge of the student's research area. Several studies support the contention that academic adaptation is also influenced by supervisory assistance (Jones, 2013; McAlpine and McKinnon, 2013; Litalien et al., 2015). The supervisor's support (frequent meetings, interactions, feedback, motivation, and encouragement) at the pre-entry point and throughout the supervision process is key to ensuring students are sufficiently integrated into the academic domain of the institution.

## Personal factors

The review defines personal factors as students' characteristics, such as self-efficacy, self-confidence, perseverance, and tenacity, which strengthen resolution to achieve success. Several studies highlighted international students' personal attributes that impact academic integration, retention, and persistence. These factors are discussed below.

## Financial status

The financial situation of international students has an enormous impact on their academic integration. For example, Adams et al. (2016) discovered that international students reported financial stress as negatively affecting their academic integration. This implies that sufficiently supporting students with educational and non-education costs, including tuition

fees and living expenses, through scholarships or other funding sources provides them with a conducive mindset for academic activities, which enhances their academic performance. In addition, revealed that Chinese students studying in the United States faced many problems, among which include financial stress, which hampered their academic progress. In an Australian study, it was reported that students' financial status impacted on their academic progress (Perry and McConney, 2010). In Turkey, the study of Snoubar (2017) reported economic problem as a challenge international students encountered which affected their academic progress. Furthermore, financial stress has been reported to contribute to international students' anxiety and negatively impact on their academic growth (Jones et al., 2018).

## Language ability

Language ability emerged as one of the key personal attributes that affects students' academic integration. Students whose previous language of instruction and current language of instruction are the same may easily integrate into their institutions' academic domains (Kimmel and Volet, 2012; Crowther, 2019; Mohamed and Bryan, 2020; Sung, 2020). Liu (2013) stated that the inability to speak and write in the English language can affect students' performance. Language adaptability fosters communication among students, peers, lecturers, and supervisors, which enhances learning. Language adaptability has been proven to be highly effective in the seamless transfer of knowledge, which promotes the academic integration of students (Lee and Bailey, 2020). Additionally, language barrier was found to be a mitigating factor for Chinese students' academic integration at German universities (Li, 2017) and various Italian universities (Song, 2013). International graduate students at a Thai university indicated language issues as a factor affecting their academic integration. In Finland, the inability of Chinese students to speak the English language and the Finnish language impacted negatively on their learning (Li and Pitkänen, 2018).

## Self-efficacy

Self-efficacy refers to a person's belief in his or her ability to exhibit the qualities and attributes required to achieve a specific goal (Bandura, 1997). Scholars found that international students' self-efficacy is linked to improved academic performance (Hakyemez and Mardikyan, 2021). This also accords with Tinto (2015), who stated that international students must believe in themselves to do well in their studies. To further strengthen the argument, researchers unearthed that self-efficacy is linked to academic persistence and that frequent interaction between students and teachers can boost students' self-efficacy (Wood et al., 2015). Other researchers believe that university faculties

that provide international students with academic skills such as research writing can boost their performance in research (Turner and Thompson, 2014). Also, Wood et al. (2015) found that international students from poor families have low self-efficacy, which makes it harder for them to learn.

## Discussion and implications

The objective of the review was to analyze previous studies on effective strategies and personal factors that promote academic integration among international students. The study identified numerous distinct strategies that promote academic integration as well as personal factors that facilitate healthy academic lives and progress on campus. This is consistent with the findings of Tinto (2015), who reported that interaction of effective institutional strategies coupled with students' personal attributes enhances their academic wellbeing in progress in the program of study. Most of the previous focused on institutional strategies, which further demonstrates the key role institutions play in supporting international students academically. The institutional strategies identified are *staff and student interaction; student orientation programs; teaching strategies; preparatory or pathway courses; learning communities; classroom organization; and supervisory support*. This implies that to ensure sufficient academic integration, institutions, through faculties or departments, must effectively implement these practices to promote learning and knowledge sharing. This can be achieved by intensifying staff interactions with international students; organizing orientation programs with components that encompass every student's needs; organizing preparatory courses for new international students; encouraging and forming learning communities; and encouraging instructors to create an engaging, enabling learning environment that produces varied learning experiences. Furthermore, the review reveals that host supervisors contribute to student learning, although studies exploring supervisor positions in academic integration tended to be the least prevalent among the themes that emerged in the review. Their contributions include advising students on research topics, supervising students as they write and prepare manuscripts for publication, and providing timely feedback. We, therefore, suggest that institutions encourage student supervisors to intensify their support for international students to ensure their transition and progress in the academic domains of their institutions. Overall, student academic integration depends largely on the institutions' support for international students.

Additionally, other themes concerning the personal attributes of international students that promote academic integration were also explored. The review findings argue that international students who are financially sound and proficient in their language of instruction have higher chances of adapting academically. The study also revealed an association

between student self-efficacy and academic adaptation. The review recommends that universities ensure that there are funding opportunities for students in need or permit students to work on a part-time basis to help ease their financial burden and fine-tune their mindset to concentrate on their studies. Furthermore, the language of instruction of the host school should be taught to international students to enable them to adapt academically to their programs. Evidence from the literature suggests that the higher a student's sense of self-efficacy, the higher the level of adaptation in academics. As a result, universities should intensify programs and practices that enhance self-efficacy among international students. Institutions have a major role in helping students realize their potential and also ensure that these personal attributes are developed and nurtured for improved academic performance. This goes in harmony with the claims of Tinto (2015) that institutional and personal strategies complement each other to promote academic adaptation and success among students.

## Conclusion

Internationalization in tertiary education has created a challenge in integrating international students academically into different institutions around the world. It has long been a source of concern for stakeholders in higher education. This systematic review approach was used to analyze strategies and personal factors that promote healthy academic lives and progress among international students. The review also highlighted the significance of institutional strategies like staff and student interaction, student orientation programs, teaching strategies, preparatory or pathway courses, learning communities, classroom organization, and supervisory support in promoting academic integration and success. Personal factors such as financial status, language ability, and self-efficacy were also discovered to facilitate academic integration and success among international students. The study suggests that institutions of higher education and other interested stakeholders take these institutional and personal

factors of integration into account when making policies for higher education.

## Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

## Author contributions

NA-R wrote the manuscript. VA did the proof reading and TO did the search and selection of articles. All authors contributed to the article and approved the submitted version.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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