

Student transformation in higher education: A grounded theory study of English-major students in Battambang

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Abstract

A qualitative research design was used in this study based on the concept of grounded theory to examine student transformation in higher education. Semi-structured interviews were conducted with 26 English-major students studying at a specific university in Battambang Province and purposively sampled because of their diverse experiences academically, socially, and practically. Audio-recorded interviews were transcribed and then coded open, axial, and selectively through the constant comparative approach to construct a theory based on the students' experiences. The results showed that transformation occurs as a result of a complex relationship between independence, critical thinking, and social connection, as the interviewees reported increased levels of confidence, resilience, and maturity through engaging in academic tasks, collaborating on certain assignments, and encountering different points of view. The mediators of transformation included personal development, cognitive development, professional preparation, and interpersonal relationships with other people. On the other hand, specific ways for achieving this process include resolving disputes within the groups, doing independent research, using modern technologies to learn more efficiently, and developing communication and collaboration skills. This study is important for higher education researchers since it suggests a theoretical model of transformation, taking into account both personal and cognitive development alongside social connections, which are achieved through the student experience in an educational setting.

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1. Introduction

1.1 Background information

Over the past few decades, higher education in Cambodia has experienced considerable changes (Dy, 2013; Kitamura et al., 2016). In general, the education sector in this country includes the Royal Academy, universities, and colleges, which provide various pathways such as an associate degree, a bachelor's degree taking four years, a master's degree over two years, and PhD programs spanning from three to six years (Ministry of Education, Youth and Sport [MoEYS], 2019). Moreover, it is generally recognized that higher education plays an essential

role in the development of many countries; however, the development path of Cambodia is determined by both its difficult history and the efforts to rebuild higher education (Kitamura et al., 2016).

Following the destruction of the whole education system by the Khmer Rouge regime (1975–1979), higher education was slowly resurrected through the restoration of long-standing academic institutions like the Royal University of Phnom Penh (Dy, 2013; Kitamura et al., 2016). Subsequently, in the 1990s, the reforms played a significant part in the improvement of higher education in Cambodia by introducing private higher education and paying programs in this area (Dy, 2013). As a result, from only eight higher education institutions (HEIs) in 1997, their number increased to 128 by 2020. Furthermore, it covered all 20 provinces and the capital of Cambodia, Phnom Penh, and at the same time, 80 HEIs were supervised directly by the Ministry of Education, Youth and Sport (MoEYS) (Open Development Cambodia, 2022).

In addition, the development of higher education in this country was also stimulated by foreign help and assistance in the 1990s and 2000s after signing the Paris Peace Accord and conducting the UN-assisted elections (Kitamura et al., 2016). Consequently, this process has resulted in rapid but uncontrolled development of higher education in Cambodia, and by August 2022, there were 130 HEIs, out of which 82 were private institutions, and they enrolled almost 200,000 students. Nonetheless, this number accounts for merely 15% of the total number of students in 2019—one of the lowest figures among ASEAN countries (Ek & Muth, 2023). Furthermore, the sector is also faced with numerous problems, such as a profit-oriented focus, low curriculum standards, a lack of motivation for academic staff, and poor prospects for graduate employability (Ek & Muth, 2023).

Nevertheless, it is also acknowledged that investments into higher education are vital for the formation of a knowledge-based economy and a coherent society in Cambodia (World Bank Group, 2024). First, universities contribute to the development of the country by creating a flexible labor force, which includes scientists, professionals, teachers, and leaders. In addition, it contributes to the enhancement of knowledge due to both basic and applied scientific research. Finally, higher education plays the role of providing access to worldwide knowledge and, at the same time, contextualization of information according to the needs of Cambodian students (World Bank Group, 2024).

Moreover, it should be noted that nowadays the importance of higher education becomes especially apparent because of the increasing relevance of knowledge-based economies (World Bank Group, 2024). In such an environment, the poor quality of education can result in unprepared graduates, and consequently, the country might have to resort to using foreign labor or hiring poorly trained local personnel. Therefore, the government decided to invest a significant number of resources into the development of this sector under the direction of MoEYS. Among the implemented projects is the Higher Education Quality and Capacity Improvement Project (HEQCIP, 2010–2017) and the currently ongoing Higher Education Improvement Project (HEIP, 2018–2024), both of which are aimed at developing university capabilities (Heng et al., 2023).

1.2 Research gap

In light of the above discussion, it should be clear that Cambodia's system of higher education displays signs of growth as well as some persisting problems (Dy, 2013; Kitamura et al., 2016). Although there have been many efforts aimed at improving higher education through various policies and measures to strengthen higher education institutions, it is still plagued by concerns

regarding quality, access, and relevance (Ek & Muth, 2023; Heng et al., 2023). More importantly, while the reforms taking place in this area have impacted the entire system and brought about many changes, scholarly research has not adequately explored how these changes impact students.

To date, previous studies have considered factors related to the level of student satisfaction (Hok et al., 2021), problems in providing student services (Moeurn, 2025), the use of technology in transforming higher education (Flore & Mean, 2024; Flores & Mean, 2025; Sam, 2024), the interconnection between teaching and research (Nhem, 2023), and the implementation of artificial intelligence in higher education (By & Ros, 2024; Hoeurng et al., 2024). However, all the research questions raised in these studies concern only particular aspects and do not provide a theoretical framework for exploring students' experience throughout their education in more detail.

Furthermore, international models used in studying student development, learning, and transformation have proven their applicability in many different settings (Astin, 1999; Tinto, 1993), but they have rarely been considered in relation to Cambodian higher education. Consequently, there has emerged a knowledge gap concerning student development experiences in Cambodia, where higher education is rapidly changing amid ongoing resource constraints. Therefore, no comprehensive theoretical framework has been developed explaining how students transform in Cambodia's higher education environment sustainably

1.3 Research questions

The current study is guided by a set of research questions that translate the broader aims into specific and focused lines of inquiry. These questions operationalize the study's intent, ensuring that the investigation systematically addresses the multiple dimensions of student development in the Cambodian higher education context.

1. How do university experiences contribute to students' personal growth, academic and cognitive development, social and communication skills, professional readiness, and attitudinal transformation?
2. What challenges, conditions, and support systems influence students' ability to navigate the transition from high school to university?
3. In what ways do personal, academic, social, and professional dimensions interact to shape students' developmental trajectories during higher education?
4. What theoretical model can be generated to explain the dynamic interplay of these dimensions in fostering holistic student transformation in university contexts?

2. Literature review

Student satisfaction is still considered an important indicator of success in education. According to Tinto (1993), variables such as curriculum quality, service facilities, quality of teaching, and campus life impact learners' intentions to persist in their studies. In particular, it was discovered that factors such as campus life and social integration played a significant role as determinants of student satisfaction and retention (Astin, 1993; Tinto, 1993). In contrast, the opposite was seen regarding financial assistance and administrative support (Astin, 1993). As a result, students seemed to care more about the studying environment than other factors. Nevertheless, on the institutional level, there are still several major challenges related to student services that Cambodian HEIs face. For example, Moeurn (2025) pointed out that these

institutions lack proper assessment mechanisms, digital and physical infrastructure, adequate budget allocation, and fragmented systems of student support.

Furthermore, digital transformation (DT) is believed to play a crucial role in improving the higher education landscape of Cambodia. According to Bond et al. (2018), stakeholders generally hold positive views toward digital transformation in higher education. Moreover, aspects such as artificial intelligence, gamification, and blended learning have been discussed in terms of improving students' learning experiences (Bond et al., 2018). However, the question of inequalities in terms of digital competence remains relevant (van Deursen & van Dijk, 2019). Similarly, Henderson et al. (2017) stated that digital technologies can positively impact the efficiency of teaching and learning as well as student satisfaction. In particular, it was concluded that students' digital skills play an important role in maximizing the benefits of technology-enhanced learning (Henderson et al., 2017).

Despite these advantages, implementing DT requires overcoming some difficulties associated with such challenges as high cost, limited digital skills, technical difficulties, and cultural differences (Henderson et al., 2017; van Deursen & van Dijk, 2019). At the same time, technology creates great opportunities, including encouraging independent learning, developing 21st-century skills, and fostering international communication (Bond et al., 2018). Therefore, in this regard, apart from investing in infrastructure and training staff, the administration should create appropriate policies for mitigating the risk of students abusing technology.

In addition, the teaching-research nexus is another issue that requires consideration. As Healey and Jenkins (2009) concluded, although students may engage in inquiry-based learning and research-related activities, they often do not fully benefit from recent scientific knowledge when academic staff have limited research engagement. Consequently, the synergy of these two factors cannot be seen (Healey & Jenkins, 2009). Thus, students are deprived of the opportunity to get excited about the topics discussed at lectures.

Moreover, artificial intelligence (AI) represents an innovative element that significantly impacts the higher education sector. Specifically, according to Chan and Hu (2023), university students widely use various AI applications such as machine translation, text generation, and other tools. Students find such applications useful in terms of convenience and personalization, yet are skeptical about the risks related to the misuse of personal data, possible biases, and a reduction in critical thinking (Chan & Hu, 2023). In addition, Alam (2021) revealed that the perception of AI's role in education greatly influences student learning outcomes and academic performance. Therefore, positive attitudes are especially important (Alam, 2021).

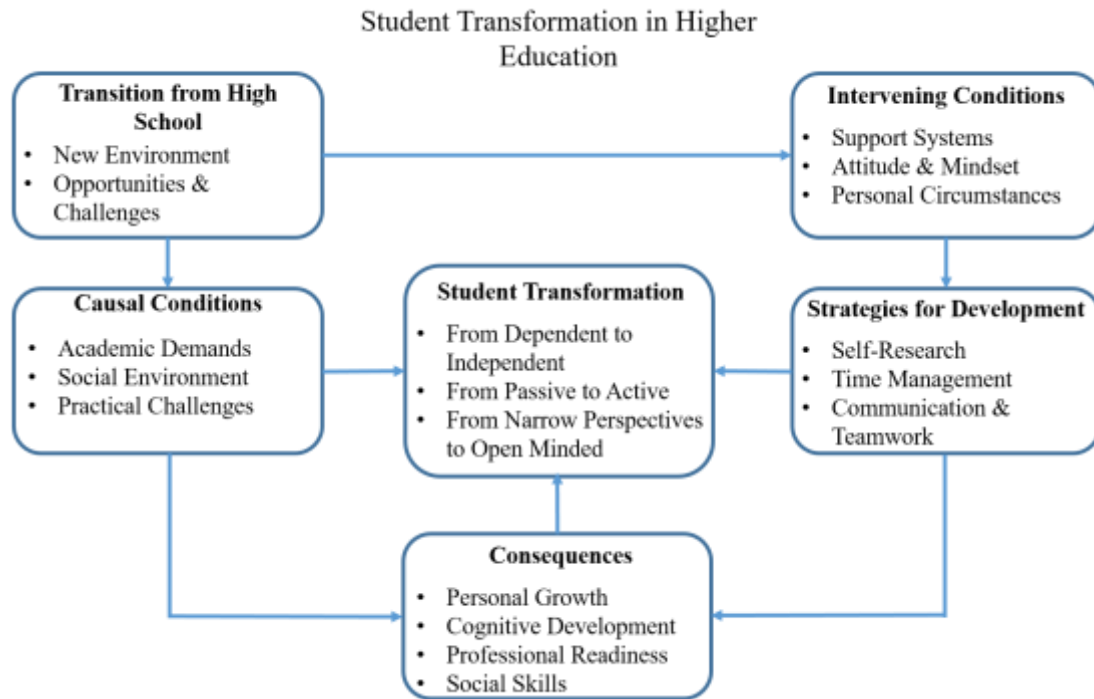
Overall, considering the results of the analysis, it is possible to state that Cambodian higher education is at a crossroads where the choice of priorities can determine its future success. In this respect, it seems reasonable to emphasize student satisfaction, digital transformation, and AI. However, in order to ensure successful changes in this field, it is necessary to address the problems associated with the absence of certain infrastructure, low involvement of teachers in research, and other difficulties mentioned above (Healey & Jenkins, 2009; Moeurn, 2025; van Deursen & van Dijk, 2019).

2.1 Theory of student transformation in higher education

Higher education fosters student transformation by simultaneously developing independence, critical thinking, and social connectedness through academic challenges, group experiences,

and exposure to diverse perspectives. This transformation is mediated by personal growth, cognitive skills, and professional readiness, leading to greater confidence, resilience, and maturity.

Figure 1. Student transformation in higher education



Source: Authors

2.1.1 Context: Navigating the transition

The transition to university is an important phase in the lives of young people, where many opportunities and difficulties arise. As students become members of new social groups and encounter new expectations, they have to cope with unfamiliar situations. At the same time, although they can develop their knowledge and skills while gaining independence in their actions, the process might be difficult due to various challenges, including adapting to self-directed learning and collaborating with others in teams. Therefore, several theories can help analyze students' development during their transition to university.

For example, Chickering's theory about the development of identity among college students reveals that they become competent, emotionally stable, and learn to balance autonomy and interdependence (Chickering & Reisser, 1993). Consequently, it proves that college education is an appropriate setting where students' self-confidence and independence develop, thereby contributing to their identity formation. Similarly, according to Schlossberg's theory about transitional situations, adaptation depends on four variables: the situation, self, support, and strategies used (Anderson et al., 2012). In this regard, the transition from high school to university can be classified as normative and requires adaptation.

Furthermore, academic and social integration are significant aspects of this development process. Specifically, following the student integration model suggested by Tinto (1993), young people have to integrate into both academic and social environments.

2.1.2 Causal conditions in the university transition

The move towards the university stage is characterized by various causes, including academic requirements, social factors, and practical aspects. Collectively, all of these causes have a significant effect on how the students develop and learn throughout their university experience. Therefore, student development and learning theories offer useful information that helps to understand how students react to the different causes and use them constructively.

First, academic requirements such as researching, presenting ideas, engaging in discussions, and having tight deadlines have a great importance in helping students become intellectually mature. In this regard, according to Perry (1970), the theory of cognitive development indicates how students progress during their stay at university in terms of developing from a dualist to becoming more relativistic and contextual in decision making. Consequently, researching assignments and debates encourages students to analyze different points of view, which helps them develop intellectually. Similarly, Kolb's (1984) theory on experiential learning indicates that knowledge is acquired through various stages, including experiencing, reflecting, conceptualizing, and experimenting. Accordingly, this applies to assignments such as research and presentation projects since they involve students in practical processes.

Moreover, the social environment of the university is another factor that affects the learning process and helps students adapt to their new environment. Specifically, collaboration through group projects and networking activities, as well as exposure to various cultures, is one of those ways through which people may collaborate and be exposed to diverse ideas. According to Bandura's (1977) social learning theory, people learn through observation, imitation, and modeling. Therefore, in a group situation, a student can improve his/her communication and collaborative abilities through imitation of peers' behavior. Furthermore, self-authorship theory by Baxter Magolda (2001) shows the importance of interpersonal interaction that can assist a student to form his/her identity and beliefs.

In addition to this, practical challenges become the conditions for learning. For example, students need to become independent by solving problems concerning life issues, managing finances, and using technical devices. In this context, the theory of self-regulated learning by Zimmerman (2000) explains how students set certain goals for themselves, monitor and regulate their progress towards meeting those goals, and adjust strategies when necessary to reach them. Consequently, all these activities make learning more extensive. Furthermore, the concept of high-impact educational practices by Kuh (2008) gives additional information about this topic.

Overall, these theories demonstrate that the causal conditions students face in higher education are not merely obstacles but essential components of their developmental journey. On the one hand, academic demands challenge them to think critically and learn experientially; on the other hand, social environments foster identity and interpersonal growth through interaction, while practical challenges cultivate autonomy and self-regulation. Therefore, the university experience represents an integrated learning environment where multiple conditions converge to prepare students for academic, professional, and personal success.

2.1.3 Central phenomenon: The journey of transformation

The central concept in university education can be described as the transformation of students into learners who become independent rather than dependent, turn into active researchers rather than passive listeners, transform from being timid to being bold, and change from being

narrow-minded people into open-minded and culture-conscious ones. Therefore, in order to explain this transformational process, it is necessary to look at several main theories that explain the intellectual, psychological, and social growth of the students while getting their education in the university.

First, the transformation from dependence to independence is clearly described by the theory of transformative learning suggested by Mezirow (1991). In his opinion, adults make the greatest step towards education through critical reflection, which results in changing their perspectives. Accordingly, concerning students in the university, they move from being dependent on educators in terms of setting goals and making decisions about learning to autonomous learners who can do all this by themselves (Mezirow, 1991).

Another important transition is when students become active researchers and critical thinkers instead of remaining passive recipients of knowledge. In this regard, the theory that explains this transition is Bloom's taxonomy, which was initially formulated in 1956 and modified by Anderson and Krathwohl in 2001 (Anderson & Krathwohl, 2001; Bloom, 1956). According to the hierarchy of skills described by Bloom, while at lower stages people are involved in memorizing facts and comprehension of the material provided, higher-order thinking requires analysis, evaluation, and creation (Anderson & Krathwohl, 2001). Consequently, students have a chance to engage in activities promoting the development of skills required for successful functioning in universities and their future lives.

Furthermore, a change from being shy to becoming a confident communicator is described by the theory suggested by Hymes in 1972 and known as communicative competence. Specifically, Hymes (1972) paid special attention to the fact that effective communication is more than the proper use of grammar. Rather, it presupposes that a person should understand what is appropriate in various situations. Therefore, in university, students acquire communicative competence through real-life experiences involving communication during group work, discussions, and debates (Hymes, 1972).

Last but not least, the transition from a limited worldview to open-mindedness and cultural intelligence can be seen through the lens of Bennett's (1993) developmental model of intercultural sensitivity. According to this theory, intercultural sensitivity consists of several stages that range from ethnocentrism, which is characterized by seeing one's own culture as the center of the world, to ethno-relativism, when one can appreciate cultural diversity and adjust accordingly (Bennett, 1993). Consequently, higher education in multicultural universities with a focus on global issues and international communication allows students to follow the described pattern.

Overall, as we see, a combination of the above-listed theoretical approaches gives us a strong foundation to explain the phenomenon of students' transformation. In particular, reflective learning, critical thinking, communicative competence, and intercultural sensitivity help students become self-reliant, confident, and global citizens (Anderson & Krathwohl, 2001; Bennett, 1993; Hymes, 1972; Mezirow, 1991).

2.1.4 Intervening conditions in university student development

Mediating conditions are an essential determinant of how students adapt and grow in higher educational environments. In particular, they consist of support systems, attitudes and mindsets, and individual background factors. Therefore, some theoretical frameworks describe how mediating conditions affect students and aid in their development.

First, the role of support systems composed of teachers, other students, and university resources is important for the student's adjustment process. According to Social Support Theory, emotional, informational, and instrumental support can act as buffers and improve one's ability to cope with challenges (Cohen & Wills, 1985). Consequently, at universities, peer groups and mentorship programs enable students to cope with their studies and integrate into a new community (Cohen & Wills, 1985). Similarly, another theory that explains how students adapt and develop is Communities of Practice, described by Lave and Wenger (1991). Specifically, it emphasizes the importance of social interaction in education since, through communication with knowledgeable members of a community, one learns and becomes more competent (Lave & Wenger, 1991).

In addition, attitude and mindset represent other important intervening factors. According to the Growth Mindset Theory by Dweck (2006), students whose attitude towards challenges consists of viewing them as a means of learning are more likely to be persistent and resilient. As a result, such an approach enables students to look at mistakes as useful feedback, thus developing problem-solving skills and motivation (Dweck, 2006). Furthermore, according to the Expectancy-Value Theory by Eccles and Wigfield (2002), motivation can be explained by combining students' expectancy to be successful and their valuation of the task. Therefore, a positive attitude towards learning contributes to involvement in educational activities and extracurricular events (Eccles & Wigfield, 2002).

Moreover, the factors associated with personal circumstances, such as being far from one's family, financial independence, workload, among others, influence students' adaptation process. In this regard, Bronfenbrenner's Ecological Systems Theory (1979) offers insight into those circumstances because, according to the theory, individuals function within several interacting systems (Bronfenbrenner, 1979). Consequently, students' family background (microsystem and mesosystem), their financial situation (exosystem), as well as culture or society (macrosystem), impact students' experience of university life and decisions made during that period (Bronfenbrenner, 1979). Likewise, Resilience Theory (Masten, 2001) claims that resilient students have protective factors, which help cope with stress, maintain motivation, and overcome challenges (Masten, 2001).

Overall, viewed in combination, these theories illustrate how support systems, attitudes, and personal circumstances serve as crucial mediating factors in student development. By providing guidance, fostering positive mindsets, and helping students adapt to environmental pressures, these intervening conditions enable students to transform challenges into opportunities for growth, ultimately enhancing their academic performance, social competence, and personal resilience (Bronfenbrenner, 1979; Cohen & Wills, 1985; Dweck, 2006; Masten, 2001).

2.1.5 Strategies for student development in higher education

University freshmen need to adapt to a complicated environment that involves a number of skills, attitudes, and strategies. First of all, among the most important skills and behaviors required for success are conducting one's own research, learning to manage time and problems, developing skills in communicating and working in groups, controlling one's emotional states, and having a mentor and peers for consultations. Therefore, such skills have roots in the theories of psychology and education that shed light on how to deal with difficulties and improve.

To begin with, participating in self-research and learning independently is one of the key strategies associated with the idea of Self-Determination Theory, which focuses on autonomous, competent, and related individuals motivated intrinsically (Deci & Ryan, 1985). In particular, self-research helps students become more independent by promoting the skills of critical thinking and initiative development (Deci & Ryan, 1985). Similarly, another theory that helps explain the importance of such activities is Experiential Learning Theory, which emphasizes the significance of experiential learning, that is, experimenting and reflecting to gain new knowledge and insights about different phenomena (Kolb, 1984).

Furthermore, the theory that is behind effective communication and collaboration when working as a team member is the Social Learning Theory, which states that students gain new skills and social norms as a result of imitation and interaction with other people around them (Bandura, 1977). Consequently, group work helps students improve their interpersonal skills, as well as develop flexibility, knowledge about different cultures, and cooperative problem-solving (Bandura, 1977). In addition, emotional regulation is another important skill, which can be described as students' ability to remain patient and calm in the case of conflicts. In this regard, this skill is based on Emotional Intelligence Theory, which explains how people should understand their emotions and those of other people (Goleman, 1995).

Moreover, the last theory, which may help students succeed in their studies, is Goal-Setting Theory. Specifically, this theory focuses on setting clear and achievable goals that allow people to improve their motivation and manage their time more efficiently (Locke & Latham, 1990). Furthermore, getting some advice from mentors and peers is also important in the process of learning.

Overall, the combination of self-directed learning, skill development, emotional regulation, teamwork, and mentorship creates a holistic approach to student growth. Guided by the principles of Self-Determination Theory, Experiential Learning Theory, Social Learning Theory, Emotional Intelligence Theory, and Goal-Setting Theory, students are equipped not only to succeed academically but also to thrive socially, emotionally, and professionally, thereby preparing them for lifelong learning and career success (Bandura, 1977; Deci & Ryan, 1985; Goleman, 1995; Kolb, 1984; Locke & Latham, 1990).

3. Methodology

3.1 Research design

The research design of this work involved qualitative techniques. As such, it aimed to investigate the overall effect of experiences on the process of individual development among Cambodian university students. In addition to describing the experiences of students, this study had an important objective of developing a theoretical model explaining how different aspects of higher education affect individual growth. Therefore, it was necessary to employ a qualitative methodology that would enable the researcher to obtain an accurate and detailed representation of the phenomena under investigation (Creswell & Poth, 2018).

To achieve this objective, the grounded theory methodology was utilized in order to collect data systematically and analyze findings. Unlike traditional approaches that involve predetermined categorizations, this method allows for the emergence of patterns and insights (Charmaz, 2014; Corbin & Strauss, 2015). Consequently, there were clear-cut procedures established to ensure that theory development remained consistent and rigorous and was guided

by empirical evidence. As a result, this allowed generating a theory based entirely on students' experiences (Glaser & Strauss, 1967).

Furthermore, it is necessary to point out that the theory obtained as a result of this research effort is inductive since it has been developed solely on the basis of empirical data collected during the course of the study (Glaser & Strauss, 1967). In addition, the resulting theory should be distinguished from conventional content analysis since no predesigned coding schemes have been utilized (Charmaz, 2014).

3.2 Samples and sampling techniques

In this research study, a purposive approach to sampling helped identify participants who would be able to give the most valuable information about their experience at the university (Patton, 2015). Specifically, the selection criteria for sampling included first-year undergraduate students and final-year undergraduate students majoring in English. Participants from both groups have managed to experience several aspects of university life and can analyze their personal development within their experience. Therefore, this approach enabled the researcher to obtain both the initial and fully formed experience of students.

A total of 26 English-major students attending a single university in Battambang took part in this study. The selection of these participants was justified by the fact that their experience covered all important aspects of university life. Furthermore, FGDs and individual interviews helped ensure reliable results through triangulation (Denzin, 1978). Thus, this sample was chosen based on its adequacy to the objectives of the study.

3.3 Instruments

To gather comprehensive data about the experiences and personal development of the students within the university, there are two main research instruments that will be used. The first research instrument is the Focus Group Discussion (FGD). Specifically, this will facilitate discussions in relation to common experiences with regard to academic, social, and personal development (Krueger & Casey, 2015).

The second research instrument is a semi-structured interview guide. In this research instrument, the interviewer will have the opportunity to engage with the participants by using guiding questions to enable them to explore their personal views regarding their experiences while in university (Kallio et al., 2016).

Together, these research instruments will utilize certain questions to gather comprehensive data from the participants.

3.4 Data collection procedures

The data was collected through both the focus group discussions and individual interviews. Specifically, a total of four focus groups, which involved six members per focus group discussion, were held for the first-year students in their second semester, while ten final-year students who were undertaking their first semester were interviewed. Consequently, this method provided the data necessary for the study since it allowed for the capture of data regarding both common experiences and individual reflections.

To ensure a comprehensive understanding of the phenomenon, two phases were undertaken in the process of data collection. In the first phase, the focus group discussion collected the

perspectives that had been shared concerning transformation and the challenges experienced collectively. Subsequently, this was followed by the semi-structured interview, which provided personal experiences. Furthermore, all the interviews and focus groups were tape-recorded after obtaining the consent of the participants.

3.5 Data analysis

Data analysis followed a methodology known as the grounded theory coding process, through which theories could be developed that are grounded in participants' experiences (Corbin & Strauss, 2015). To begin with, the process started from open coding, which allowed the emergence of initial categories. Subsequently, relationships between these categories emerged during the process of axial coding. Following this process, selective coding allowed for the development of a theoretical model on student transformation (Corbin & Strauss, 2015). Furthermore, the constant comparative process between all focus group discussions and interviews was used to allow for the emergence of theoretical saturation (Glaser & Strauss, 1967). Throughout this process, manual coding was used, where all codes were recorded in an Excel sheet.

As part of the process of generating a grounded theory, there is always a similar process in order to accomplish this aim. Accordingly, the process of generating the grounded theory in this research followed this pattern. Thus, the initial process was to determine whether the research would adopt the method of grounded theory. Next, the process proceeded to theoretical sampling, followed by memoing and data collection. During this process of data collection, memoing would still be conducted. Thereafter, open codes would be categorized as axial codes, and axial codes would be categorized again to become selective codes. Finally, theoretical codes and memos are then applied in order to generate codes, categorize these codes, reduce them, and create hierarchies (Charmaz, 2014; Corbin & Strauss, 2015).

3.6 Ethical considerations

Strict ethical guidelines were followed during the research to ensure the safety and well-being of the study's subjects. In particular, the involvement of the subjects in the study was completely voluntary, with informed consent being sought before the research was carried out (American Psychological Association, 2020). Furthermore, all of the transcripts were anonymized, and all data collected was safely stored away to avoid any form of misuse.

In addition, it is worth noting that the subjects were also made aware that they could opt out of the research at any point during the process and that this would not have any repercussions on them whatsoever (American Psychological Association, 2020).

4. Findings

4.1 Transformative dimensions of the university experience

4.1.1 Personal growth and identity formation

The university experience serves as a pivotal role in personal development and identity formation among students. As they transition from secondary education to higher learning, students commonly report significant changes in confidence, maturity, independence, and motivation—factors that collectively shape their evolving sense of self.

Confidence and Courage have emerged as prominent areas of transformation. Many students describe overcoming initial fears and anxieties related to public speaking, debates, and presentations. For example, one participant from FGD1 noted, *"I feel calm and simply focus on completing my tasks,"* reflecting a newfound ability to express ideas without fear or frustration. Similarly, Y4S1 shared, *"Presentations, debates, and discussions have strengthened my speaking and communication skills, and I am no longer afraid to speak in front of the class."* Y4S9 added, *"I now speak more confidently, without worrying too much about mistakes, because I understand mistakes are opportunities to learn."* These reflections illustrate the development of self-assurance and resilience, which extend beyond academic contexts into broader social interactions.

In parallel, students demonstrate increased maturity and responsibility. Emotional regulation and thoughtful decision-making have become integral to their daily lives. FGD3 explained, *"I feel more mature and not pressured... we have more responsibility due to our job and time management,"* while Y4S4 emphasized their ability to *"listen to and understand other people's ideas better, solve problems independently, speak in public without fear, and work well in a team."* Y4S9 also highlighted the importance of reflective thinking, stating, *"I have learned to think before acting... understanding what is appropriate to do and what to avoid."* These experiences underscore the role of university life in fostering deliberate behavior, self-control, and accountability.

A critical dimension of personal growth is developing independence and self-reliance. University life offers students opportunities for self-directed learning, independent project management, and the navigation of daily responsibilities without familial support. FGD2 described the freedom to *"search and learn independently... I have to plan the steps and do everything by myself,"* while FGD4 recounted spending an entire week completing a group assignment alone, which strengthened their confidence and problem-solving skills. Y4S1 remarked, *"Living far from home has taught me to solve problems on my own and manage my daily life and expenses effectively,"* and Y4S8 shared that living and working independently *has strengthened my ability to manage my own responsibilities.* These accounts highlight the emergence of resilience and autonomy in both academic and personal spheres.

Finally, university life fosters motivation and a commitment to self-improvement. Students frequently cite the flexibility and freedom of higher education as a driving force for continuous growth. FGD2 observed, *"At university, people are focused on their own goals... all we have to do is work hard and improve ourselves... that leads to a bright future."* Y4S5 explained that challenging academic tasks *"push me to strengthen my skills and expand my understanding of the world."* At the same time, Y4S8 noted that completing numerous assignments has *"helped me practice discipline, persistence, and effective time management... I hope to continue improving myself even more after graduation."* Y4S10 emphasized that higher education encourages them to *"think deeply, solve problems, and adapt to new situations,"* contributing to a forward-looking mindset and personal development.

In sum, the university environment plays a pivotal role in shaping students' personal growth and identity. By nurturing confidence, maturity, independence, and motivation, higher education equips students with the skills, attitudes, and mindset necessary to navigate academic, professional, and personal challenges. The experiences shared by students and FGD participants demonstrate that active engagement, self-directed learning, and persistence cultivate not only capable learners but also individuals with a stronger sense of self and purpose.

4.1.2 Academic and cognitive development

Beyond fostering personal growth, the university environment significantly supports students' intellectual development, offering a holistic platform for both academic and personal advancement. Through coursework, research, presentations, and collaborative activities, students report significant improvements in critical thinking, knowledge acquisition, research skills, creativity, and technological proficiency. These experiences collectively enhance their preparedness for future professional and personal challenges.

Critical Thinking and Problem-Solving have emerged as foundational aspects of cognitive development. Students consistently emphasize that higher education cultivates clearer thinking, more deliberate decision-making, and the ability to apply theoretical concepts to real-world situations. Y4S2 remarked, *"I now think more critically and make better decisions when solving problems,"* while Y4S7 noted, *"Improved critical thinking skills enable me to analyze information and make well-reasoned decisions... Stronger problem-solving skills help me apply theories and concepts to real-life situations."* Similarly, Y4S8 reflected, *"Before making any decision, I now consider the background and possible consequences... When I face a problem, I know how to approach it and find a solution."* These reflections illustrate the development of a systematic and analytical approach to challenges, enhancing both academic performance and practical reasoning.

Knowledge Acquisition encompasses not only subject-specific expertise but also general knowledge, life skills, and exposure to diverse perspectives. Students describe how university learning broadens their intellectual horizons and equips them with tools for lifelong learning. FGD1 shared, *"We constantly try to improve our English more and more by studying in class or doing research,"* while FGD3 added, *"I can get a lot of new language from other subjects... I get some experience from teachers who tell me and give me advice."* Y4S1 emphasized the practical value of this learning: *"I have gained valuable general knowledge and life experience from my lecturers, which will benefit me both in daily life and in my future career."* Exposure to diverse peers also contributes to intellectual growth, as Y4S9 noted, *"Meeting students from different places has introduced me to new perspectives."* These experiences demonstrate that knowledge acquisition extends beyond textbooks to include cultural understanding, interpersonal learning, and personal development.

Research and Creativity are further indicators of cognitive advancement. Students frequently cite independent learning, innovative problem-solving, and creative presentation skills as outcomes of their academic engagement. FGD1 explained, *"I do a lot of research, I study by myself, I think about new things to do to make my assignment presentation more catchy,"* while FGD2 added, *"I can use my creativity to do what I want."* FGD4 described a particularly demanding experience: *"I spent a whole week doing the assignment by myself... then presented it to other students... this is how I improve."* These accounts highlight the development of cognitive flexibility, originality, and perseverance in the face of academic challenges.

Technology and ICT Skills have become increasingly integral to students' academic development. Proficiency in digital tools, software, and online resources enhances their ability to complete assignments, conduct research, and communicate effectively. FGD4 recalled, *"Before I came to university, I did not know how to use the computer. Now I can use PowerPoint, Word, and AI... translate, print, and present assignments,"* while Y4S1 shared, *"I have improved in using technology, regularly working with my laptop and smartphone to prepare slides, conduct research, and use various apps and websites."* These skills are

essential for navigating the modern academic landscape and contribute directly to students' cognitive efficiency and productivity.

In conclusion, the university experience profoundly shapes students' academic and cognitive development. Through enhanced critical thinking, expanded knowledge acquisition, independent research and creativity, and technological mastery, students acquire the intellectual tools necessary for lifelong learning and professional success. The experiences shared by FGD participants and year 4 students reflect a holistic development that equips learners not only with academic competence but also with the cognitive agility and problem-solving skills required to navigate complex real-world challenges.

4.1.3 Social and communication skills

In addition to academic and cognitive growth, the university experience fosters essential social and interpersonal competencies. Through group work, presentations, discussions, and interactions with peers and faculty, students enhance their ability to communicate effectively, collaborate productively, and adapt to diverse social contexts. These skills are critical not only for academic achievement but also for personal development and professional readiness.

Teamwork and Cooperation emerge as foundational elements of students' social development. Many students noted that participating in group assignments and collaborative projects challenges them to work with peers who have varying working styles and levels of engagement. A participant from FGD1 shared, *"Teamwork or group work in assignments is very tough... mostly people don't respond to what you're saying in the group... now I feel calm and just do and finish what I did,"* illustrating how students develop resilience and independence within team settings. In contrast, FGD2 expressed appreciation for group activities: *"University often has group projects or presentations... I enjoy meeting new friends. We can share ideas and work on group projects."* These experiences cultivate practical teamwork skills, patience, and mutual understanding. Y4S8 added, *"I have also improved my teamwork skills through frequent group work with classmates. These experiences have allowed me to share my opinions, listen to others, and learn to understand different perspectives."*

Communication and Relationship Building are central to students' social growth. Regular engagement in presentations, debates, and discussions helps students articulate ideas clearly and confidently. Y4S1 remarked, *"Presentations, debates, and discussions have strengthened my speaking and communication skills, and I am no longer afraid to speak in front of the class,"* while Y4S2 noted, *"My English skills—both in writing and speaking—have improved, allowing me to express my ideas more clearly... My presentation skills have also developed, enabling me to speak confidently in front of others."* Students also develop active listening and interpersonal awareness. Y4S4 shared, *"I now listen to and understand other people's ideas better... speak in public without fear, and work well in a team."* Similarly, Y4S9 reflected, *"I now speak more confidently, without worrying too much about mistakes... I listen more to others' ideas, especially my teachers and classmates."* These skills strengthen relationships with peers, lecturers, and professionals, contributing to a supportive and collaborative learning environment.

Networking and Exposure to Diversity further enhance students' social and communication competencies. Interacting with peers from varied cultural and academic backgrounds broadens students' perspectives and improves their adaptability. FGD3 highlighted, *"We met new people, new friends coming from different districts and provinces... we got new experiences from different teachers,"* while Y4S7 observed, *"Broader knowledge and perspective, leading*

to a deeper understanding of different cultures, ideas, and worldviews... Improved ability to work in teams and connect with professionals.” Exposure to diverse viewpoints fosters open-mindedness, empathy, and the ability to collaborate effectively in multicultural settings. As Y4S8 noted, “Interacting with people who have diverse ideas and life experiences has taught me to listen, understand, and respect different viewpoints.”

Overall, the university environment significantly contributes to the development of students’ social and communication skills. Through collaborative projects, public speaking opportunities, and cross-cultural interactions, students cultivate teamwork, effective communication, active listening, and intercultural understanding. The experiences shared by FGD participants and Y4 students reflect a comprehensive growth in social competencies, equipping them with the interpersonal skills essential for academic success and future professional engagement.

4.1.4 Practical and professional readiness

In addition to fostering social and communication skills, the university experience equips students with the discipline, practical competencies, and support systems necessary to navigate academic and professional challenges. Through time management, hands-on learning, and mentorship, students develop the confidence and capability to meet these demands effectively.

Time Management and Discipline form the foundation of students’ readiness for practical and professional responsibilities. Balancing academic workloads with personal obligations requires strong organizational skills and a goal-oriented mindset. FGD3 noted, *“We have more responsibility due to our job and time management,”* reflecting the heightened accountability students encounter in higher education. Y4S3 added, *“Meeting deadlines has strengthened my time management, and completing my academic goals has boosted my confidence,”* while Y4S4 emphasized, *“Higher education has helped me become more confident, responsible, and skilled at managing my time... I am more motivated to study and achieve my goals.”* Similarly, Y4S8 shared, *“Another important change is my ability to manage time and stay organized. I know how to make the best use of the 24 hours in a day by completing tasks step by step, ensuring that my time is not wasted.”* These reflections highlight how disciplined planning and effective time use prepare students to meet both academic and professional expectations.

Practical Skills acquired through assignments, presentations, translation tasks, and internships enable students to apply theoretical knowledge in real-world contexts. FGD1 explained, *“I do a lot of research, I study by myself, I think about new things to do to make my assignment presentation more catchy,”* while FGD4 shared, *“I spent a whole week doing the assignment by myself... then presented it to other students... this is how I improve.”* These experiences enhance not only academic competence but also problem-solving, critical thinking, and the ability to translate theory into practice. Y4S1 noted, *“Presentations, debates, and discussions have strengthened my speaking and communication skills... I have also improved in using technology, regularly working with my laptop and smartphone to prepare slides, conduct research.”* Y4S7 added, *“Stronger problem-solving skills, applying theories and concepts to real-life situations... Giving professional training through internships and practical work to link theory with real-world practice.”*

Teacher and peer support are essential in cultivating practical and professional readiness. Mentorship, guidance, and encouragement help students navigate complex academic tasks and foster a growth-oriented mindset. FGD3 stated, *“We got some experience from teachers who tell me and give me some advice,”* while Y4S7 remarked, *“Providing access to resources such*

as libraries, research facilities, and expert guidance from teachers... My professors have served as role models, inspiring me to improve myself as a student and future professional. Friendly and motivated classmates have also encouraged me to keep learning.” Likewise, Y4S9 reflected, *“University life—with its hard work, group projects, and inspiring teachers—has given me the tools to grow... I listen more to others’ ideas, especially my teachers and classmates.”* These experiences underscore the importance of a supportive academic environment in reinforcing skill development and professional preparedness.

In essence, the university environment effectively fosters practical and professional readiness by strengthening students’ time management and discipline, providing hands-on learning opportunities, and offering mentorship and peer collaboration. The reflections of FGD participants and Y4S1 students demonstrate that through these experiences, students not only enhance their academic abilities but also develop the practical, professional, and interpersonal skills essential for success in higher education and future careers.

4.1.5 Attitudinal and mindset shifts

Equally important, the university experience fosters significant shifts in students’ attitudes and mindsets. Through exposure to diverse perspectives, challenging academic tasks, and dynamic social interactions, students develop greater resilience, open-mindedness, and a constructive approach to learning—enhancing their academic journey and preparing them for life beyond higher education.

Open-Mindedness and Cultural Perspective emerge as key aspects of attitudinal growth. Students are consistently exposed to new ideas, cultures, and ways of thinking, which foster respect and appreciation for different viewpoints. FGD3 highlighted, *“We met new people, new friends coming from different districts and provinces... we got new experiences from different teachers.”* Similarly, Y4S5 reflected, *“Since I began pursuing higher education, I have grown more confident, disciplined, and open-minded... exposure to new knowledge, diverse perspectives, and challenging tasks... expand my understanding of the world.”* Y4S7, 8, and 9 echoed this sentiment, noting that interactions with peers from diverse backgrounds and engagement with varied academic content broadened their perspectives, enhanced their appreciation for cultural differences, and improved their communication skills. These experiences collectively cultivate a more inclusive and open-minded outlook, enabling students to integrate multiple perspectives in both academic and social contexts.

Resilience and Adaptability also play a central role in students’ attitudinal development. Navigating the challenges of higher education—from demanding assignments to complex group dynamics—requires persistence, problem-solving, and emotional flexibility. FGD1 shared, *“Teamwork or group work in assignments is very tough... before I would feel angry and didn’t want to say anything, but now I feel calm and just do and finish what I did.”* FGD2 added, *“I stopped thinking that everything has to be perfect. It’s alright if we all make mistakes,”* highlighting the ability to adapt to setbacks. FGD4 illustrated the development of self-reliance and endurance: *“I spent a whole week doing the assignment by myself... then presented it to other students... this is how I improve.”* Likewise, Y4S3 and 10 emphasized how exposure to new academic topics and problem-solving tasks strengthened their critical thinking and adaptability, enabling them to approach challenges with confidence and strategic thinking.

A Positive Mindset complements these attitudinal shifts, as students learn to view mistakes as opportunities and approach learning with optimism and self-confidence. FGD2 noted, *“What I*

like in university is self-improvement... people just focus on themselves, so all we have to do is work hard and improve ourselves.” FGD3 described a smoother transition to higher education: *“When I started studying at university, I felt it was not as hard as high school and felt better.”* Individual reflections further highlight this growth: Y4S1, 2, and 9 expressed that university life helped them overcome fear of public speaking, communicate more confidently, and embrace errors as part of the learning process. These attitudinal adjustments reflect a shift toward self-efficacy, personal growth, and constructive engagement with academic and social challenges.

These reflections underscore that university experiences significantly contribute to attitudinal and mindset shifts, shaping students’ personal and academic development. Exposure to diverse perspectives cultivates open-mindedness; navigating challenges builds resilience and adaptability; and embracing mistakes fosters a positive and proactive mindset. The reflections of FGD participants and Y4S1 students demonstrate that these shifts are instrumental in shaping confident, adaptable, and growth-oriented individuals—equipped not only to succeed academically but also to thrive in professional and social environments.

5. Discussion

There is a high degree of alignment between the literature review and the study findings, with numerous pieces of evidence found in the literature corroborating and extending the ideas generated through this study. In fact, the study findings provide an additional perspective on some themes identified previously while adding value to the existing body of research in the area of higher education.

Firstly, as far as students' satisfaction and engagement are concerned, previous research shows that the quality of teaching, university life, and institutional support can affect their ability to persevere in studying (Astin, 1993; Tinto, 1993). Indeed, the findings show that students feel more competent and satisfied in terms of personal growth, cognitive development, soft skills, and professional abilities as a result of engaging with various educational tasks, collaborating with peers, and participating in university life in general. Consequently, it appears that students' satisfaction becomes a driving factor for further transformation and motivation to learn. Likewise, when it comes to cognitive and academic development, literature sources suggest that the use of technology, research, and digital learning contributes to achieving better educational outcomes (Bond et al., 2018; Healey & Jenkins, 2009; Henderson et al., 2017).

Another area where there is agreement is social integration and communication. Specifically, research indicates the significance of peer interactions, college environment, and social involvement as important predictors of persistence in university settings (Astin, 1999; Tinto, 1993). Correspondingly, the findings of the present study provide qualitative evidence about how students learn teamwork skills, enhance their communication abilities, and develop intercultural awareness due to group activities, indicating how social integration helps in transforming oneself holistically. In addition, attitudinal and mindset transformations were stressed in the research literature and discussed among students who had developed self-determination and resilience as a part of a positive attitude towards successful transitions in college education (Anderson et al., 2012; Deci & Ryan, 2000; Dweck, 2006).

Furthermore, the findings of the research can be seen as an expansion of the previous research literature on the basis of concrete examples provided from the perspective of the participants. In particular, students share their experience of living alone, time management strategies, conflict resolution within groups, and the application of technology, such as artificial

intelligence, for studying purposes. Moreover, there is a new element introduced by this research concerning mentorship and support provided by peers rather than organizational structure, as discussed earlier. This finding aligns with the growing literature emphasizing the importance of peer learning, communities of practice, and informal support systems in higher education (Lave & Wenger, 1991; Tinto, 1993).

Nevertheless, despite the suggestion from previous literature that financial and administrative support may have less influence on students' satisfaction than social and academic integration (Astin, 1993; Tinto, 1993), it is clear that such support can play an important role in helping students become professionally ready and improve practical skills. Therefore, structural assistance can help students go through the process of transformation, regardless of its minor effect on satisfaction. On the other hand, while previous literature has pointed to the difficulties that exist in higher education due to uneven research involvement and insufficient infrastructure (Healey & Jenkins, 2009; Moeurn, 2025), it is evident that students can be resilient enough to overcome such problems and develop personally and intellectually.

In summary, the study results add to the literature by presenting contextualized information about transformation processes experienced by Cambodian students in personal, cognitive, social, and professional contexts. Admittedly, contradicting previous results would mean challenging theoretical concepts such as self-determination, experiential learning, and transformative learning, as they cannot exist without practical manifestations (Deci & Ryan, 2000; Kolb, 1984; Mezirow, 1991). Therefore, the present findings neither agree nor disagree with previous literature. Rather, they reveal how the mentioned theoretical concepts take place in practice.

6. Conclusion

The paper finds that the students studying for their higher education in Cambodia go through a major transformation on several fronts. In particular, this transformation is heavily influenced by involvement in challenging academics, collaborating with fellow students, and active participation in campus activities that improve student satisfaction and motivation. Furthermore, cognitive transformation takes place due to technological changes, research practices, and learning with the help of AI, thus allowing the students to cultivate critical thinking, research, creativity, and ICT skills. Moreover, social transformation occurs because of interaction and cooperation with other students and mentorship, and this helps in the acquisition of teamwork, communication skills, and resilience. Nevertheless, despite the constraints posed by the infrastructure, unequal research practices, and the system in general, the students remain resilient and determined.

Overall, these findings highlight the significance of institutional assistance and experiential learning in helping develop holistic transformations in students within the higher education sector in Cambodia. Therefore, taking these findings into account, it is necessary for higher education institutions in Cambodia to promote increased participation by the students by exposing them to diverse academic challenges and activities on campus. In addition, the use of AI and digital technologies should be considered alongside research-based learning for promoting mental growth in students. Likewise, it is recommended that mentoring programs and peer-to-peer interactions be facilitated to foster social interactions among students. Finally, students should be encouraged to develop resilient attitudes and become self-directed learners to aid their transformation.

However, certain limitations need to be taken into account when analyzing the findings. For instance, while the qualitative method enables researchers to generate profound insights into students' experiences, it does not allow generalization in a statistical sense. In addition, the study was performed at one university only and solely among English majors. Consequently, its findings might not apply to other universities, fields of study, or other Cambodian contexts, and the findings cannot fully reflect the experiences of students majoring in other faculties and universities. Therefore, further studies should consider using larger quantitative samples encompassing more than one university and various fields of study to obtain broader generalization, explore statistical relations between variables of interest, and add depth to the qualitative findings presented in this paper.

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The authors used Grammarly to polish the language in some parts of the article. However, they declared that the article's content is entirely theirs and not generated by any means.

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