

First-Year Students' Perceptions of Their Learning Experience at Industrial University of Ho Chi Minh City

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ABSTRACT

This study explored how first-year students perceived their learning experience at Industrial University of Ho Chi Minh city (IUH). The freshmen's learning experience was measured by their academic, social, and emotional involvement in educationally purposeful activities. The research also examined the intercorrelations of various aspects of learning experience and their relationships with freshmen's satisfaction and sense of belonging. Data collected from an online survey with the participation of 898 IUH first-year students showed that students highly rated the quality of their lecturers' teaching practices, the institutional support, and expressed their satisfaction with their entire learning experience. Data, however, indicated areas that needed improving. IUH first-year students did not make enough academic effort because of low levels of the coursework's challenge. Moreover, the quantity and quality of the interactions between first-year students and other members of IUH were still low, which negatively affected students' sense of belonging to the university. The study also pointed out factors positively correlated with students' satisfaction and sense of belonging, including the institutional support, the quality of students' relationships with socializing agents on campus, and the high quality of teaching practices. Based on these results, some suggestions were put forward to help IUH motivate first-year students to make more effort in their study; support and encourage students' better integration with IUH learning environment; and increase students' sense of belonging to the university.

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1. Introduction

The number of Vietnamese undergraduate students dropping out of university or receiving academic warnings has considerably increased in recent years. Of all these students, first-year students account for a great proportion. For example, in 2022, a university in Ho Chi Minh city gave academic warnings to 1460 students, of which 964 were freshmen [1]. First-year students drop out of university because of many reasons. They include students' dissatisfaction with the training program or the university; limited support from the university and lecturers; their poor adaptability to the new learning environment at university, or their complacent about their success in the university entrance examinations. These students, in general, do not have good and valuable learning experience. The increase in the number of first-year undergraduate dropouts is arousing a great worry from Vietnamese universities, educational managers, parents, and the wider public. Dropping out of university not only bring negative effects on students themselves, but also cause a waste of time, money, and resources for their institutions, their families, and the society.

Besides the relationship with dropout rates, first-year learning experience has long impact on the whole university learning process of undergraduate students. The first university academic year is the golden time for students to develop learning attitudes, behaviors, and knowledge and skills necessary for next academic years [2]. Freshmen who do not have good experience usually cannot establish good learning goals and learning routines, cannot adapt well to the university learning environment, and obtain unsatisfactory learning outcomes [3]. Because of the above-mentioned reasons, learning

experience of first-year students deserves more attention of Vietnamese educational managers and researchers, and Vietnamese institutions.

First-year student learning experience has extensively been investigated by international researchers [3]. Their studies, the majority of which were conducted in developed countries, have addressed diverse aspects of this field [4]. However, because of differences in learning conditions and cultures, these comprehensive and highly applicable research findings are not completely relevant to the Vietnamese higher education context. In Vietnam, there are some studies on first-year students, but these studies chiefly explore first-year students' psychological problems, and their difficulties in learning and life. Other studies mention Vietnamese students' learning experience. However, these studies do not focus on freshmen's learning experience. Gaps in the literature about Vietnamese first-year student learning experience as well as the problems related to the increasing dropout rate of first-year students suggest the need for Vietnamese researchers and educators to investigate this research domain more extensively. This case study with the emphasis on describing IUH freshmen's perception of their learning experience, and examining the intercorrelation of different aspects of first-year learning experience and their impacts on student satisfaction and sense of belonging will help fill in the above-mentioned literature gap. Practically, based on the research findings, IUH can find solutions for the betterment of first-year students' learning experience to improve its training quality.

The next section will review the scholarly literature on first-year learning experience. It is followed by sections Research Methodology and Research Results and Discussion. The paper ends with a concluding section.

2. Literature Review

First-year students' learning experience is a prominent topic in higher education scholarly literature and practices worldwide [2], [3]. The interest in this topic stems from the implementation of the mass higher education policy in many countries that leads to the declined quality of university input with a large proportion of students under-prepared, both academically and psychologically, for a new challenging learning environment at university [2], [5]. This results in the increase in dropout rates of freshmen as well as unsatisfactory learning outcomes of some students in the next academic years [5].

Learning experience can be understood as what students experience while attending a university. It "refers to any interaction, course, program, or other experience in which learning takes place" [6]. Students gain experience from both traditional and nontraditional educational interactions in traditional or nontraditional academic settings [6]. Learning experience includes students' academic, social and emotional involvement [4]. To first-year students, learning experience is also the process of self-adjustment to well adapt to the campus environment, including both academic and social adjustment [4], [7]. Learning experience is the complex interrelation between students' individual characteristics and the institutional characteristics [4] from which students' identity, behavior, values are shaped [3]. From their learning experience, students accumulate knowledge, develop skills and attitudes and mature [8].

Studies on first-year students' learning experience explore many different aspects, among which student adjustment and student engagement are dominant themes. The first theme – student adjustment – focuses on investigating freshmen's adaptation to the new learning environment at university that is much different from that at high school [2], [9]. The adaptation process, according to Ang et al. (2019) [3], is interesting but highly challenging. Many students recognize that studying at university is very different from their expectations [3]. The 2014 national survey of Australian first-year student learning experience showed that about a third of surveyed students found coping with university study problematic [2]. For some, what they experienced in the first year at university were like a stressful and daunting battle [10]. They encountered lots of difficulties in adjusting to their courses, to new learning methods that require them to learn more independently and actively and to manage time effectively [10]. Moreover, first-year students had problems in developing relationships with peers, lecturers, or professional staff because of their lack of social and cultural capital that made them unconfident when interacting with their classmates or teaching and professional staff [10]. Most of studies on Vietnamese first-year learning experience belong to this theme. These studies chiefly reflected difficulties Vietnamese students faced in their first year at university. For example, a survey conducted at Nong

Lam university in 2018 with the participation of 801 first-year students showed that students adjusted at a low level to learning activities, new teaching and learning methods at university. They also had difficulties in interacting with their peers, lecturers. Some often felt anxious and stressed [11]. To overcome these problems, as some researchers suggested, first-year students need great assistance, both academic and spiritual, from their families, peers, lecturers, and the university to successfully transit from high school to university [3], [7].

Student engagement is another focal point of research into first-year learning experience. Studies in this area describe how freshmen engage academically, socially, and emotionally in educationally purposeful activities [2], [2]. Among these studies, American National Survey of Student Engagement (NSSE) and Australian Student Experience Survey (SES) were the most well-known. The NSSE measures the level of student engagement by 10 indicators that are classified into 4 themes as follows:

- Academic challenge (4 indicators) that examines the level at which the coursework intellectually challenges students through engaging them in complex cognitive tasks, including (1) higher-order learning, (2) reflective and integrative learning, and (3) quantitative reasoning activities. It also investigates (4) how frequently students use effective learning strategies.
- Learning with peers (2 indicators) that collects information on how frequently students collaborate with peers in undertaking learning tasks and interact with peers with different backgrounds.
- Experiences with faculty (2 indicators) that investigates how students evaluate the effectiveness of their lecturers' teaching practices and how frequently they interact with their lecturers.
- Campus environment (2 indicators) that explores students' perception of how much their university supports their learning and development and of how positive their interpersonal relations with other members of the university are [12].

As first-year student learning experience involves student emotions, both the NSSE and SES collect data on how students satisfy with their learning experience and how their sense of belonging develops [2], [12]. Students have the sense of belonging only when they feel themselves as true members of the university community [2].

The findings of the NSSE and SES indicated that most Australian and American first-year students had positive learning experience. They highly evaluated their universities' training quality and the institutional support. Students also thought that the challenge the coursework presented to them was great enough to exert sufficient pressure on them to make them study hard. Socially, Australian and American first-students interacted with other members of the university community, but the frequency and the quality of these interactions fell short of expectations [2], [12]. As a result, a large proportion of students did not have a sense of belonging to their institutions, they tended to keep to themselves [2]. Despite some negative results in the social aspect, Australian and American freshmen, in general, satisfied with their learning experience [2], [12].

Studies of student engagement conducted in countries with Confucian heritage culture (CHC) added some aspects of student learning experience, including academic effort and assessment. Research on Vietnamese student engagement indicated that academic effort was the most important component that had the largest influence on Vietnamese students' learning outcomes [13]. A case study of Chinese student engagement showed the impact of assessment on student learning. Zhang, Hu and McNamara (2015) described the phenomenon of *shock students* that was common among students from CHC countries. *Shock students* neglected their study during semester, they intensively studied during examination period and passed all examinations [14].

Freshmen's perceptions of their learning experience are influenced by many factors. A survey with the participation of 530 first-year students identified three factors important to how freshmen evaluated their learning experience. They included the quality of teaching staff, the nature of freshers' academic study, and their sense of belonging at university [15]. Hughes and Smail (2015) thought that during the transition period, the university's support programs should initially focus on students' social integration and their wellbeing so that they can quickly settle down their new life at university [16].

Based on the analysis of scholarly literature, the researchers decided to adopt the approach that viewed freshmen's learning experience as student academic, social, and emotional engagement in educational purposeful activities. Information on IUH freshmen's perceptions of both subjective and

objective aspects of learning experience was collected by 8 scales that were grouped into 5 themes as follows:

- Academic effort comprising the scale Academic Effort that measured the effort and time students devoted to their study.
- Academic challenge consisting of two scales: (1) Assessment that examined the challenge various types of assessment presented to IUH freshmen and (2) Higher-order Learning that explored the extent the coursework emphasized higher-order thinking and reflective learning activities.
- Collaborative Learning containing the scale Teamwork that examined the frequency with which IUH freshmen collaborated with their peers in completing various learning tasks and extracurricular activities.
- Experiences with lecturer including two scales: (1) Quality of Teaching Practices that collected students' evaluation of the quality of their lecturers' teaching practices and (2) Student-Lecturer interactions that measured how frequently students interacted with their lecturers.
- University environment comprising two scales: (1) Institutional Support that examined that explored how IUH supported freshmen in study and life and (2) Quality of Relationships that explored how IUH freshmen perceived their relationships with other members of the university community.

3. Research methodology

Because learning experience is a multidimensional concept, involving many student aspects and activities, the study adopted the quantitative approach. Data were collected by an online questionnaire survey. The survey was conducted in IUH in August 2021. 898 students of the 16th cohort participated in the survey. At the time of the survey, these students had just finished their first academic year at IUH. This moment was suitable for them to evaluate their university learning experience fully and exactly.

The Australian SES and the American NSSE were used to develop the research questionnaire and measurement scales. The reliability and validity of these questionnaires were verified and widely recognized [17]. However, to make the questionnaires appropriate for the Vietnamese higher education context, some modifications were made, including integrating the two questionnaires, selecting suitable question items, adding some, and translating the questionnaires into Vietnamese language. While designing the survey questionnaire, the researchers frequently discussed the questionnaire content with some specialists in Vietnamese higher education and lecturers to make the questionnaire reach the possible highest level of reliability and validity. A pilot test was administered with the participation of 30 IUH first-year students to ensure that all survey participants can exactly understand the items' meanings.

To collect information on freshmen's perceptions of both subjective and objective aspects of learning experience, 8 scales were constructed from 40 chosen question items. These scales were classified into 5 themes. The names and the contents of the scales and their classification were presented in section 2 and showed in Figure 1. Cronbach's alpha coefficients used to measure the 8 scales' reliability ranged from 0.73 (Teamwork) to 0.93 (Quality of Teaching Practices), which showed that all scales were reliable for the measurement. Data about students' satisfaction with their learning experience and their sense of belonging to the university were also collected.

The contents of the survey questionnaire were entered onto Google Forms to create an online survey. After that, the survey links were sent to the 16th cohort classes via Email and Zalo. Students participated in the survey on a voluntary basis. The survey lasted for 2 weeks. When the survey time ended, the survey was closed, and the survey responses were downloaded in form of an Excel file.

Statistical software SPSS 22.0 was employed to analyze the collected data. Descriptive statistics (frequencies, percentages, and means) were performed to describe the demographics of the sample and to get an overview of characteristic features of IUH first-year students' learning experience. Bivariate correlations were employed to evaluate the correlations of different aspects of learning experience, the correlations between student demographics and their learning experience, and the correlations of learning experience with students' satisfaction and sense of belonging.

4. Results and discussion

4.1. The sample's demographics

The sample consisted of 898 IUH first-year students. The data showed that 43.7% (n=392) of the sample were males, 56.3% (n=506) were females. As regards academic disciplines, the sample was divided into 2 groups: Engineering and Business. Students taking Engineering as their majors constituted 39.9% (n= 359), the remaining 60.1% (n=539) consisted of students who majored in Business. The majority of the sample (70.5%) had university-educated family members or relatives. The rest (29.5%) were first generation in their families to attend university. These students, according to Baik et al. (2015), usually face more difficulties than their peers because they cannot receive helpful advice and support from their family members when they encounter problems in study.

4.2. IUH first-year students' learning experience

IUH first-year learning experience was measured by 8 scales. As the items of the survey were measured by different point scales (4-point, 5-point, 7-point scales), the researchers converted all the items in the 8 scales to a 100-point scale. Means of these scales are showed in Figure 1.

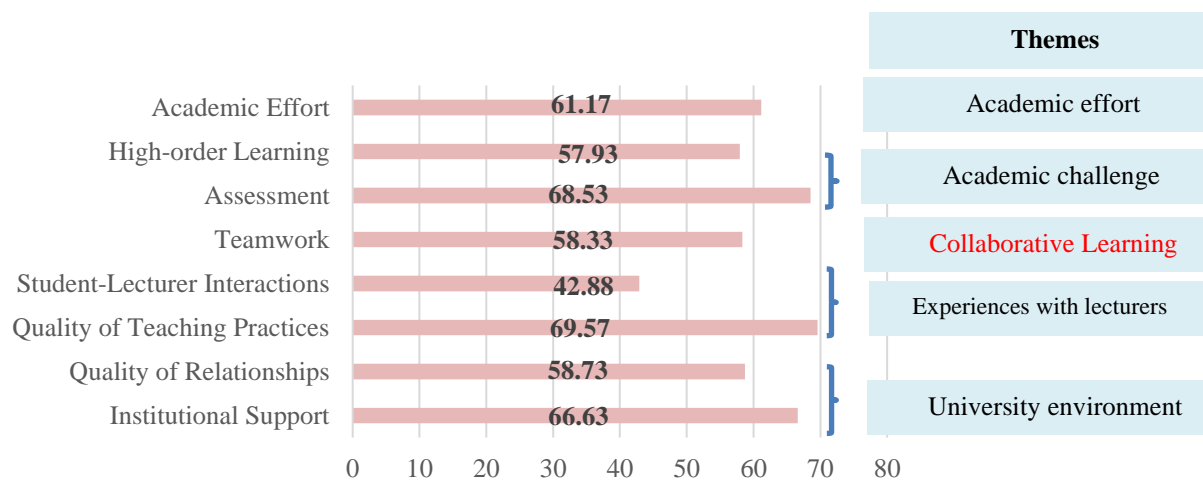


Figure 1. Means of Learning experience scales

As indicated in Figure 1, except “Student-Lecturer Interactions”, all scales had the means above average, ranging from 57.93 to M= 69.57. Students scored highest on the quality of teaching practices (M = 69.57), institutional support (M= 66.63), and the great challenge of assessment (M=68.53). On the contrary, students did not interact much with their lecturers (M=42.88), had limited collaboration with their peers (M=58.33), and low rated their relationships with other IUH members (M=58.73). The data revealed the emphasis of the coursework on higher-order learning activities was not strong (M=57.93). The effort IUH freshmen devoted to their study was not as sufficient as expected (M= 61.17). These findings were consistent with the results of some studies on some Vietnamese universities’ student academic effort and teaching and supportive practices [13], [18]. These studies showed that students highly evaluated the effectiveness of their lecturers’ teaching and their institutions’ support, but they had limited interactions with their lecturers and poor relationships with the university learning community and their coursework did not heavily focus on the development of students’ higher-order thinking skills. To make a more comprehensive interpretation of the results, instead of reporting each of the 8 scales sequentially, the scales are presented into 5 main themes: Academic effort, Academic challenge, Collaborative learning, Experiences with lecturers, and University environment.

4.2.1. Academic effort

This theme consisted of one scale “Academic Effort”. The scale measured the time and exertion IUH first-year students devoted to their study. Statistics showed that IUH freshmen put in some effort to learning activities. Most of students often attended classes (80.4%), frequently tried to master difficult contents (70.9%), and tried best to meet the coursework’s requirements at the highest possible degree (82.1%). However, only 60.4% of students often prepared for class and 65.9% of students spent time

reading materials beyond assigned textbooks. Especially, the percentage of students who actively asked questions or participated in class discussion accounted for 33.4%.

Data about the time students devoted to their independent study at home were collected. The result showed that on average, they spent 7.6 hours per week doing homework, preparing for class and approximately 6 hours per week reading assigned textbooks and not assigned materials. Meanwhile, they put in 8.5 hours per week on leisure activities. Nearly 3/4 of the survey respondents (74%) invested less than 10 hours per week to independent study activities. This amount of time was much lower than the amount of time students should spend studying at home as required by the academic credit system.

4.2.2. Academic challenge

The theme “Academic challenge” explored (1) the challenge various types of assessment presented to IUH freshmen and (2) the extent the coursework emphasized higher-order thinking and reflective learning activities.

Types of assessment examined in the research included examinations, tests, assignments, in-class exercises (both theoretical and practical). A large proportion of respondents (61.6%) said that it was examinations that presented the highest challenge to them and forced them to study hard. Tests, in-class exercises, and assignments placed lower pressures on students. The percentages of students who thought these types of assessment exerted high pressures on them were 53.8%, 58%, and 60.2%, respectively. However, the proportions of students who lowly rated the challenge of different types of assessment were still large, ranging from 38.4% to 46.2%. This indicated that the level of challenge of assessment at IUH was not strong enough to make all IUH freshmen try their best to study.

Regarding the “Higher-order Learning” scale, statistics indicated that the coursework put a moderate level of emphasis on complex cognitive tasks. Among the surveyed higher-order thinking and reflective learning activities, “Connecting knowledge from course to prior experience” and “Forming new ideas and understandings from various sources of information” were highest rated. The percentages of 72% and 69.1% of the survey respondents thought their coursework strongly emphasized these activities. Students rated lowest on “Analyzing an idea, experience, or line of reasoning in depth” (62%). Nearly 2/3 of the students (65%) rated that the coursework focused on developing their skills in evaluating information and data, and in applying learned knowledge to solving practical problems as “Very much” or “Quite a bit”. However, more than half of the students (52.8%) said that the coursework still emphasized memorizing materials. These findings indicated that though the mean of the scale “Higher-order Learning” was still low, the training programs of IUH gave stronger focus on the development of its students’ higher-order learning skills. Compared with the results of some previous studies [13], [18], the students’ ratings for the higher-order learning activities were much higher.

4.2.3. Collaborative learning

The theme comprised one scale “Teamwork” that examined the frequency with which IUH freshmen collaborated with their peers in completing various learning tasks and extracurricular activities. Data showed that 80.6% of the respondents often did exercises or assignments in groups because of the coursework’s requirements. However, only 58.9% voluntarily worked with other students on learning tasks. The percentage of students working with their peers on extracurricular or community service activities accounted for a small proportion (46.3%). The reason why a large number of IUH freshmen participated in group work was that many IUH lecturers applied new pedagogical methods such as teamwork, problem-based learning to their teaching practices. However, students carried out group work activities because of the coursework’s requirements, not because of their willingness or their awareness of the benefits collaborative activities brought to them.

4.2.4. Experiences with lecturers

The two scales of this theme were used to describe students’ evaluation of their experiences with lecturers. The finding yielded a mixed result. IUH first-year students highly evaluated the quality of their lecturers’ teaching activities, but they had very limited interactions with their lecturers. Most of the respondents recognized that lecturers’ teaching activities were high quality and effective. More than 80% of the survey participants thought that their lecturers were good at explaining course goals and

requirements (88.1%), highlighted main points of the lecture (86.6%), and providing quick and sufficient feedback on their tests and assignments. Their lecturers often set demanding requirements to make them study hard. Furthermore, many students said that their lecturers provided them with good care and encouraged them to actively study (81.1% and 83%, respectively). However, only 75.3% of the respondents highly rated their lecturer's ability to stimulate student interest in learning.

Though many students acknowledged their lecturers' care given to them, they did not actively interact with their lecturers outside of class. The percentages of students who frequently discussed course topics or contents with their lecturers out-of-class time or talked about their study plans or academic performance with their lecturers were 40.2% and 34.2%, respectively. Not many students often participated in extracurricular activities with teaching staff (33.4%). Students had limited interactions with their lecturers may be because of their lecturers' busy teaching schedules that restricted their availability for students. Social networks (Facebook, Zalo ...) open up more favorable channels of communication between students and lecturers as they do not have any space and time restriction. However, only 43.9% of the respondents often had contact with their lecturers via social networks. The hierarchical and formal relationship between students and lecturers contribute to their limited interactions. This kind of relationship does not promote students' informal interactions with lecturers outside the classroom settings. The limited student-lecturer interactions were also observed in universities in China and Korea, two CHC countries like Vietnam [19; 20]. Pascarella and Terenzini (2005) confirmed the positive correlation between student-lecturer interactions and a wide range of student learning outcomes, including their academic performance; cognitive, intellectual, personal and moral development; and career orientation [21]. Therefore, IUH needs to put more effort to promote this kind of interactions.

4.2.5. University environment

University environment includes two aspects: the institutional support given to freshmen in study and life, and the quality of their interactions with other people in the campus. Data showed IUH provided their first-year students with good care. The university encouraged them to spend significant amounts of time studying and on learning activities (83.6%) and to participate in extracurricular and community service activities (82.1%). Most of IUH freshmen thought the institution offered adequate support to help them be involved socially (84.1%) and succeed academically (80.1%). However, only 69.1% of the respondents believed that they received financial support from the university.

The respondents did not highly rate their relationships with peers, lecturers, academic advisors, and professional staff. Only 32.2% of students rated their relationships with peers as "Good" and "Excellence". The rates significantly declined when students assessed the quality of their relationships with academic advisors (31.6%), lecturers (28.5%), academic affairs staff (26.9%), and professional staff (25.2%). These percentage rates were much lower than those of American students. For example, the large proportions of American students thought that they had good relationships with their lecturers (56%), academic advisors (51%), and professional staff (41%) [12].

4.3. IUH freshmen's satisfaction and sense of belonging

IUH freshmen's satisfaction was measured by their ratings of their entire learning experience. 60.8% of the respondents, found their learning experience in the first academic year at IUH good or excellent. The proportion of the survey participants who were not satisfied with their learning experience constituted only 1.2%. When asked about their sense of belonging to the university, 39.1% of the respondents considered themselves as true members of the university. Students who felt alienated or wanted to drop out took a very small proportion (1.2%). The rest (55.9%) said they felt no attachment to the university community. In general, IUH first-year students had positive evaluation of their learning experience.

4.4. Intercorrelations of learning experience scales and their impacts on student satisfaction and sense of belonging

Bivariate correlations were performed to examine the intercorrelation between Learning experience scales, the correlations between student demographics and their learning experience. Moreover, the

researchers explored the relationships between student learning experience and student satisfaction and sense of belonging. The results of the analysis are presented in Table 1.

Table 1. *The intercorrelations of learning experience scales and their relationships with student satisfaction and sense of belonging*

| | AE | HOL | ASS | TW | QTP | SLI | IS | QR | G | M | FM | SB | SA |
|-----|----|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| AE | 1 | .533** | .349** | .594** | .428** | .458** | .383** | .320** | .116** | -.083* | .026 | .192** | .288** |
| HOL | | 1 | .324** | .531** | .435** | .532** | .420** | .287** | .028 | -.027 | .024 | .095** | .195** |
| ASS | | | 1 | .232** | .420** | .150** | .363** | .298** | .173** | -.124** | .048 | .143** | .229** |
| TW | | | | 1 | .374** | .630** | .363** | .302** | .040 | -.028 | .042 | .091** | .199** |
| QTP | | | | | 1 | .286** | .696** | .405** | .130** | -.051 | .125** | .257** | .362** |
| SLI | | | | | | 1 | .321** | .310** | -.084* | .046 | -.042 | .056* | .091** |
| IS | | | | | | | 1 | .411** | .082* | -.020 | .028 | .251** | .405** |
| QR | | | | | | | | 1 | .016 | .017 | .085* | .299** | .294** |
| G | | | | | | | | | 1 | -.663** | .120** | .108** | .055 |
| M | | | | | | | | | | 1 | -.126** | -.054 | -.053 |
| FM | | | | | | | | | | | 1 | .099** | .087** |
| SB | | | | | | | | | | | | 1 | .343** |
| EVA | | | | | | | | | | | | | 1 |

AE= Academic effort; HOL = Higher-order Learning; ASS = Assessment; TW = Teamwork; QTP = Quality of Teaching Practices; SLI = Student-Lecturer Interactions; IS =Institutional Support; QR = Quality of Relationships; G = Gender; M = Major; FM = University-educated family members; SB = Sense of belonging; SA = Satisfaction

* = $p < 0.05$; ** = $p < 0.01$

Concerning the intercorrelations between Learning experience scales, as showed in Table 1, all the Learning experience scales were intercorrelated positively and significantly with p values of less than the 0.01 level. Most of Pearson coefficients ranged from 0.302 to 0.696, which were regarded as medium to large. Only 5 of 36 coefficients were below 0.3 that indicated small correlations. A closer look at the data revealed that teamwork activities ($r=0.59$), the coursework’s emphasis on higher-order learning ($r=0.53$) and the interactions between students and lecturers ($r=0.46$) had the highest associations with student academic effort. The correlations of academic effort with the quality of teaching practices and the challenge of assessment were medium with $r = 0.33$ and $r = 0.35$, respectively. These findings were consistent with the results of previous studies [21], [22] that established the relationships between the above-mentioned factors and student academic effort. “Higher-order Learning” had the highest correlations with “Teamwork” ($r = 0.53$) and “Student-Lecturer Interactions” (0.53). This confirmed Pascarella and Terenzini’s notion about the role of higher-order learning activities in promoting peer collaboration in learning and student interactions with teaching staff [21]. Furthermore, the analysis indicated that teamwork activities had a very strong association with the interactions between students and lecturers ($r= 0.63$). The quality of lecturers’ teaching practices was strongly correlated with students’ evaluation of institutional support ($r= 0.70$).

Regarding the correlations between student demographics and their learning experience, not many correlations were found between them. Correlations, if found, were quite weak. Female students were more diligent ($r= 0.12$), found assessment more challenging ($r = 0.17$), and rated their lecturers’ teaching practices better ($r = 0.08$) than male students, but females made fewer regular contacts with their lecturers than males ($r=0.08$). Students majored in Business thought the assessment was more challenging ($r= -0.12$) and they devoted more effort to their study ($r=- 0.08$) than Engineering students. This can be explained by the fact that females constitute a large proportion of Business students and that

in the first academic year, all IUH students (except students majoring in Foreign Languages) have to study Mathematics that presents more challenge to Business students than Engineering students. Students who had university-educated family members evaluated lecturers' teaching practices higher than students who did not ($r = 0.12$). These students also made better evaluation of their learning experience ($r = 0.08$) and had better sense of belonging ($r = 0.10$) than their other peers. Female students had stronger feeling of belonging to the university community than male students ($r = 0.11$) but there was no difference between them in their ratings on their learning experience.

Relating to the relationships between student learning experience and student satisfaction as well as their sense of belonging, all learning experience scales had positive associations with these two outcome scales. "Institutional Support", "Quality of Relationships", and "Quality of Teaching Practices" had the highest correlations with both students' evaluation and their sense of belonging. These findings were congruent with Hughes and Smail's comments about the importance of institutional support and student relationships with other members of university community to freshmen's academic and social integration which, in turn, have positive effects on their learning outcomes [16]. Another factor that had association with these two outcomes was academic effort. This suggested that a diligent student would have good learning experience, thus, they would feel more satisfied with their learning experience and have better sense of belonging. The interactions between freshmen and lecturers had the smallest correlations with two outcomes ($r = 0.06$ and 0.09). This may be caused by the limited level of interactions.

5. Conclusions and suggestions

The study identified positive aspects of IUH first-year learning experience as well as aspects that need improving. The majority of students were satisfied with their learning experience. This resulted from the high quality of IUH lecturers' teaching practices and the sufficient support IUH gave to their freshmen. However, the data revealed that IUH freshmen did not devote enough time and effort to their study. The correlational analysis indicated factors that had effects on academic effort, including higher-order learning activities, student interactions with peers and lecturers, quality of teaching practices, and the challenge of assessment. Regarding the social aspect, the interactions of students with their peers and lecturers were limited and poor in quality. These may be the reason why many students did not feel belonged to the university. Below are some suggestions on measures that IUH can employ to improve the learning experience of its first-year students.

Firstly, IUH should increase the level of freshmen's academic effort because of its significance to many of student learning outcomes. To do this, IUH should put more emphasis on higher-order learning activities in the coursework and assessment. When students are intellectually challenged, they have to devote more time and effort to their study, more actively seek assistance from their lecturers, and collaborate with their peers in learning, which helps them broaden their knowledge, develop, and reach their fullest potential [23]. Furthermore, some changes to assessment practices at IUH should be made with more focus on formative assessment in which students' learning is assessed by their performance during the whole learning process, not only by grades they obtain in midterm and final examinations. Regular learning tasks make students frequently work hard during semester, not only before examinations.

Secondly, IUH should create a supportive environment for first-year students so that they can better integrate with the university community and develop their strong sense of belonging. When first-year students consider themselves as true members of the university, they will feel satisfied with their learning experience, be persistent to their study, and often obtain good academic results [24]. This can be done by promoting students' interactions with peers and lecturers through various in-class and out-of-class activities that open up opportunities for students to collaborate with peers or communicate with lecturers. These kinds of interactions are necessary for freshmen to faster adapt to the new university learning environment and have better learning experience [4]. More importantly, IUH should improve the quality of the relationships between first-year students with other socializing agents on campus. Teaching and professional staff should adopt friendlier attitudes towards students, become more supportive and responsive to freshmen's needs. Such a culture oriented to student support and service will enhance student satisfaction and sense of belonging.

As a case study, this research cannot fully reflect the nature of Vietnamese first-year student learning experience. To obtain profound insights into this issue, further extensive studies are needed. First, studies in this field should broaden their scopes of data collection with the participation of various Vietnamese universities. Second, research on first-year student learning experience should include more exploration on how non-institutional factors such as students' socioeconomic backgrounds, students' motivation, students' and their families' expectations affect their learning experience. Last, future qualitative studies are needed. Students' voices provide researchers with more in-depth understanding of first-year students' emotions, expectation, and the reasons for their success or failure in the first academic year at university.

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