A STUDY OF STUDENT ENGAGEMENT AT INDUSTRIAL UNIVERSITY OF HO CHI MINH CITY

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ABSTRACT

Though being extensively studied and discussed worldwide, 'student engagement' defined as the time and the quality of effort students put into their learning and their involvement in educationally purposeful activities, has been scarcely explored in Vietnamese scholarly literature. To make a preliminary exploration of 'Vietnamese student engagement', this case study design research investigated how undergraduate students of Industrial University of Ho Chi Minh city engaged in their study and other educationally purposeful activities and how they perceived the level to which they are challenged and supported by their institution. For data collection, a survey with the participation of 500 students was employed. Data analysis indicated (i) insufficient student academic effort; (ii) students' positive perception of lecturers' teaching practices and the university's support; (iii) low levels of academic challenge (iv) limited interactions between students and lecturers and low quality of students' interactions with agents of socialization on campus. To promote student engagement, the university should improve assessment practices, pay more attention to the development of students' high-order thinking, integrative and reflecting thinking skills. Moreover, the university should enhance student - lecturer interactions and create a more friendly campus environment.

Key words: *student engagement; educationally purposeful activities; student academic effort; academic challenge; assessment practices.*

1. INTRODUCTION

Student engagement defined as the quantity of time and the quality of effort students devote to their studies and their active participation in educationally productive activities [1] has been widely recognized as a key factor in student learning, personal development and success [2]. Student engagement is thought to be one of the most useful levers for 'attracting and retaining students, satisfying and developing them, and ensuring they graduate to become successful, productive citizens' under 'increasingly straitened economic conditions' [3, p. 2]. In the Vietnamese context where the higher education system is facing student disengagement related problems such as the university attrition rate on the rise, the decline in training quality, the public dissatisfaction and doubt about university education, and the tougher and tougher competition for student enrolments among Vietnamese universities [4], student engagement is worthy of Vietnamese educators' and researchers' attention. However, there have been scant of studies on Vietnamese student engagement. This study will investigate how full-time undergraduate students of a Vietnamese public university, Industrial University of Ho Chi Minh city, engage in activities and conditions that are linked with high-quality learning by empirical research and what the university has done to support their learning. This case study will serve as a preliminary exploration of the cultural and educational-specific features and level of Vietnamese student engagement. Based on the findings, some suggestions for the enhancement of student engagement will be made. Thereby, the research will make certain contributions, both theoretical and practical, to the body of

knowledge of Vietnamese higher education. The research will also build a foundation for future research on student engagement in Vietnam.

2. LITERATURE REVIEW

2.1. The concept of student engagement

The concept of student engagement was conceptualized through the work of George Kuh, one of the most influential and eminent scholars in the field of university student learning and success, in the late of 1990s [3]. It was developed from the perspective that suggests that students learn, develop and succeed most from what they do during their study at university, regardless of their pre-university characteristics or the type of the university they attend [5]. There have been a variety of definitions of student engagement. In the most widely accepted definition, student engagement is defined as follows:

> *[s]tudent engagement represents two critical features. The first is the amount of time and effort students put into their studies and other educationally purposeful activities … The second component of student engagement is how the institution deploys its resources and organizes the curriculum, other learning opportunities, and support services to induce students to participate in activities that lead to the experiences and desired outcome such as persistence, satisfaction, learning, and graduation. [6, p.44]*

This definition sees student engagement as 'the dynamic interplay' [7, p. 496] between students and their institutions produce high-quality learning. On one hand, students considered as the agents of student engagement must learn actively, interact constructively with lecturers and staff, work collaboratively with peers, or involve themselves enthusiastically in enriching educational experience [1]. They must make the best use of their university experience to enhance their own learning and development. On the other hand, institutions as the facilitators of student engagement have to create opportunities and environments that are conducive for students to become engaged [6]. The measures institutions can implement to promote student engagement include presenting students high but reachable intellectual challenge, enhancing the interactions of students with major campus agents (peers, lecturers, and staff), offering student learning opportunities inside and outside the classroom, and creating a supportive campus environment [8]. International extensive research confirms the impact of student engagement on a wide range of desired outcomes, including student cognitive and non-cognitive gains in learning and development, their grades, their persistence, their satisfaction [2, 9, 10, 11, 12]. For this reason, student engagement is recognized as a proxy for the quality of undergraduate education [13].

2.2. Measurement of student engagement

In recognition of the importance of student engagement to student learning and success, in 2000, a new student survey with the main focus on student behaviors closely linked with many desired learning and personal development outcomes of university education was introduced in the US [3]. Since then, the survey, now commonly referred to as NSSE (National Survey of Student Engagement), has enjoyed ever-increasing popularity. Acknowledged as an instrument necessary for determining the quality of university education [1], national surveys of student engagement are annually conducted not only in the US but in many countries, such as Canada, New Zealand, South Africa, and China.

The NSSE content includes two components: behavioral and perceptual dimensions [14]. The behavioral component encompasses student behaviors positively linked to desired outcomes, such as collaborating with peers, interacting with teaching staff and actively participating in class and extracurricular activities. The

perceptual dimension comprises students' evaluation of the quality of their relationships with agents of socialization on campus, and students' perception of institutional support for their success. In the newest version of the NSEE, student engagement is measured by the ten Student Engagement Indicators. The indicators that represent the wide range of important aspects of the student behaviours and experience include the following:

- *Higher-Order Learning* investigating the level of the coursework emphasis on complex cognitive tasks such as application, analysis, judgement, and synthesis;
- *Reflective and Integrative Learning* examining the frequency with which students engage in reflective and integrative learning;
- *Learning Strategies* focusing on how often students use learning approaches that enhance their learning and retention;
- *Quantitative reasoning* measuring the level of student involvement in quantitative reasoning activities;
- *Collaborative Learning* referring to student collaboration with peers in performing different learning tasks;
- *Discussions with Diverse Others* asking students how often they have discussions with people from a different race or ethnicity, economic background, religious belief and political view than their own;
- *Student-Faculty Interactions* collecting the data on how often students interact with lectures in outside class activities, such as extracurricular activities, career consultation, and discussion about course topics and their academic performance;
- *Effective Teaching Practices* assessing students' perceptions of their instructors' teaching practices.
- *Quality of Interactions* examining how students evaluate the quality of their interactions with various members of the learning environment;
- *Supportive Environment* exploring student perceptions of the institutional programmes and activities providing students with opportunities to be academically and socially engaged [15].

What kind of data to be collected in each indicator will be presented in more detail in the Methodology section?

The NSSE, as many researchers note, provides institutions with actionable information on student behaviors, measures of process and institutional environment. The data can be used to inform improvement efforts [14] and allow universities to identify areas to be improved and make necessary interventions. For this reason, despite some criticism against the survey, such as its heavy emphasis on student behaviors, its perception of engagement as the one-size-fits-all notion [16], and its questionable construct and predictive validity, the NSSE is accepted as the most reliable and effective survey of student engagement [14].

3. METHODOLOGY

The study was conducted in Industrial University of Ho Chi Minh city in April 2018. Descriptive, case study research design with a questionnaire survey was employed to obtain a numeric description of student engagement. Cluster sampling was used to choose a total of 500 students as the participants of the study. The decision on the sample size was based on the size of the target population that numbers 28, 834 students. According to Johnson and Christensen (2014), if the population outnumbers 100,000, only 384 people are needed for the sample size [17, p. 267]. The sampling was conducted at the class level. First, 15 classes are randomly selected. Then, the researchers asked the class lecturers for permission to conduct the survey. The

students of the first ten classes accepting the invitation became the research participants.

An adapted version of the NSSE's 2013 College Survey Report (CSR) was utilized to collect data. To make the questionnaire be suitable for the Vietnamese higher education context, some modifications to the CSR was made, including deleting, changing, and adding some items, and translating the whole questionnaire into Vietnamese language. To validate the questionnaire prior its employment, the researchers conducted a series of the pilot test. Twenty participants were recruited for the pilot test. First, the participants were asked to fill out the survey forms and noted any points of confusion. Some follow-up discussions with the participants after completing the survey forms were set up to elicit their comments on the survey form's content, the instructions, and the appearance and clarity of the survey form's layout. They were also invited to make some suggestions for the improvement of the survey forms. The final version of the questionnaire consisted of 22 multiple choice questions with 98 items. A wide variety of response scales was used, ranging from 'Never', 'Sometimes', 'Often', 'Very often'; or 'Very little', 'Some', 'Quite a bit', 'Very much'; to '1 to 4', '5 to 10', '11 to 20', 'More than 20'.

Of the questionnaire's 98 items, 43 items were chosen to build 10 scales to measure student engagement. The construction of 9 of these scales was based on the 2013 NSSE Engagement Indicators that denote a wide range of key aspects of the student experience linked to learning and development [18]. The other scale, Academic Effort, was developed based on Zhao and Kuh's Academic Effort measure [19]. The name of, the included items, and the data to be collected in each scale are presented in Table 1.

Cronbach's Alpha coefficients were used to examine the reliability of the 10 scales. Except Learning Strategies having a = 0.65, the other scales had the alpha level equal to or greater than 0.70, ranging from a = 0.70 for Collaborative Learning and Academic Effort to a = 0.85 for Effective Teaching Practices. This result indicated all the scales reached necessary levels of reliability.

Data collected from the survey were analyzed by SPSS 22.0. Descriptive statistics (frequencies and percentages) were performed to get an overview of student demographics (gender, academic disciplines) and to describe characteristic features of the engagement of the students of the Industrial University of Ho Chi Minh city.

Quantitative research approach imposed some limitations to the study. In the next research on Vietnamese student engagement, it is necessary to add qualitative data collected by interviews or observations. These data will provide a more in-depth understanding of the emotional aspects of student engagement. Future research should aim at developing a survey that is more suitable for the Vietnamese university context.

4. RESULTS AND DISCUSSION

4.1 Demographics

A sample of 500 full-time undergraduates participated in this study. Demographic information of this study includes student gender and major disciplines. Frequencies and percentages were computed to determine the distribution of these demographic factors in the total sample. The data revealed that 31% (n = 155) of the survey respondents were males and 69% (n = 345) were females. The sample of the study represented a wide range of disciplines. In this study, the academic disciplines were divided into two groups: Engineering and Business. Students who majored in Engineering constituted 55.2% (n = 276) of the sample. Students taking Business as their majors comprised the remaining 44.8% (n = 224).

Table 1. *Student Engagement Scales*

Theme	Scales	Items	Data to be collected
Academic Challenge	Higher-order Learning	4	The extent to which the coursework emphasises more complex, challenging thinking skills, such as analysis, synthesis, judgement, and application.
	Integrative and Reflective Learning	6	The frequency with which students integrate the course material with the knowledge they gain from other courses, their own prior experiences, and societal issues, as well as make judgments of their own views on an issue, and try to better other people's views by putting oneself in their shoes.
	Learning Strategies	3	The frequency with which students identify key information, key information when reading, review notes after class and summarize what they learn from different sources
	Quantitative Reasoning	3	The frequency with which students use quantitative data to make conclusions, analyze and evaluate information.
Collaborative Learning	Collaborative Learning	4	The frequency with which students collaborate with peers in different activities, such as explaining course material, preparing for exams, or working on course projects or assignments
Experiences with Lecturers	Student-Lecturer Interactions	5	The frequency with which students discuss their academic performance, career plans and course topics with teaching staff as well as they work with lecturers on extracurricular activities
	Effective Teaching Practices	5	• The extent to which lecturers are organised and prepared, use examples to explain difficult points, or provide both formative and prompt and detailed feedback.
Campus Environment	Quality of Interactions	4	Students' ratings for the quality of their relationships with peers, lecturers, academic advisors and professional staff.
	Supportive Environment	4	The extent to which their university emphasizes various student supportive programs and activities.
Academic Effort	Academic Effort	5	Time students spend on class preparation; the frequency with which students complete tasks before coming to class; the extent to which students work hard to master difficult contents, to perform tasks as best as possible, to meet lecturers' standards and expectations.

4.2 Student Engagement

Means and standard deviation was used to determine the central tendency and the spread of the Student Engagement scale scores. All items in the Student Engagement scales were converted to a 60-point scale. As noted earlier, the items in the survey were measured by different scales, it is necessary to make all items in a cluster calculated on the same scale. This prevented any item from exerting a stronger impact on the scale than other items. Furthermore, this allowed comparing this study's scales with American student Engagement indicators. Means and standard deviation of the 10 scales are presented in Table 2 in descending order of the values of means.

Table 2. *Means and Standard Deviations of Scales*

Engagement Indicators	***N***	***M***	***SD***
Effective Teaching Practices	497	37.99	11.33
Supportive Environment	499	36.03	10.63
Collaborative Learning	499	33.60	10.81
Learning Strategies	497	33.40	10.11
Quality of Interactions	495	32.81	12.50
Academic Effort	499	31.67	8.70
Reflective and Integrative Learning	496	30.81	9.31
Higher-order Learning	497	28.63	10.22
Quantitative Reasoning	496	24.13	11.57
Student-Staff Interactions	497	18.11	10.55

As the findings suggested, students scored highest on Effective Teaching Practices (M= 37.99), Supportive Environment (M =36.03), but scored lowest on Higher-order Learning (M=28.63), Quantitative Reasoning (M= 24.13), and Student-Lecturer Interactions (M= 18.11). The means of the other scales ranged from 30.81 to 33.60. The extent of engagement varied markedly from scale to scale, and the gap between the highest and the lowest scales was large. For example, the mean of Student-Lecturer Interactions was 19.88 points lower than that of Effective Teaching Practices. The means of this study's Student Engagement scales were much lower than those of 2018 American Student Engagement Indicators. The result of the comparison is shown in Table 3.

Table 3. *Mean Comparison of Student Engagement Indicators between Vietnam and the US*

Student Engagement Indicators	**Means**	
	Vietnam	US
Higher-order Learning	28.6	38.4
Integrative and Reflective Learning	30.8	35.4
Learning Strategies	33.4	38.3
Quantitative Reasoning	24.1	27.1
Collaborative Learning	33.6	33.8
Student-Lecturer Interactions	18.1	21.5
Effective Teaching Practices	38.0	38.6
Quality of Interactions	32.8	41.8
Supportive Environment	36.3	36.6

Source: *NSSE 2018 Engagement indicators [20]*

For further exploration, frequencies and percentages were also conducted for individual items that constituted the Engagement scale. These statistics helped examine the level of student engagement in individual activities. The discussion of this analysis is grouped into 5 themes: Academic Challenge, Collaborative Learning, Experiences with Staff, Campus Environment, and Academic Effort.

4.2.1 Academic Challenge

The means of the three indicators in this theme were among the lowest of the ten indicators. These means were much lower than those of the corresponding indicators in 2018 NSSE. The highest differences were found in Higher-order Learning and Integrative and Reflective Learning. For

example, while more than 70% of American students thought their coursework substantially emphasized higher-order learning activities, only more or less 50% of Vietnamese students had the same opinion. Remarkably, only 32% of Vietnamese respondents rated that the coursework highlighted applying facts, theories or methods to practical problems or new situations as 'Very much' or 'Quite a bit' whereas 78% of American respondents did so. Similarly, only 36% Vietnamese students regularly combined ideas from different courses and 56% of Vietnamese students connected ideas from course to prior experience and knowledge. These percentage rates were quite low in comparison with the corresponding percentage rates in the NSSE 2018 that was 70% and 84%, respectively. Descriptive statistics also indicated low percentages of students often used quantitative data to make conclusions (32.9%), analyze a real problem (30.2%) or evaluate others' conclusions (30.9%). The corresponding percentages of American students were 51%, 38%, 40%. Learning Strategies (M=33.40) had the highest mean in this theme. The percentages of the students who often employed learning strategies ranged from 54.2% to 68.6%. This may result from the fact that learning strategies included in the survey, such as identifying key information, reviewing notes, or summarizing lessons after class, are strongly recommended and commonly used by Vietnamese students at all levels of education.

These findings indicated that Vietnamese students, generally, are not sufficiently challenged and supported to be involved in different forms of deep learning. It is suggested that the university should enhance higher-order learning and reflective and integrative learning and quantitative reasoning activities. These activities, as many researchers [5,7] proposed, present students intellectual challenge, thus, stimulate their learning interests and require them to become more engaged with their study through spending more time studying, making better use of institutional available resources, and actively seeking help from staff and peers. This may help students reach their fullest potential.

4.2.2. Collaborative Learning

This was the only scale whose mean value was approximately equal to that of the NSSE 2018's corresponding indicator (33.6 compared to 33.8, respectively). A relatively high percentage of Vietnamese students reported engaging in collaborative learning. The data suggested that approximately 70% of the survey participants frequently worked with other students on course projects or assignments. More than two-thirds of the total sample (68.7%) indicated that they asked other students to help them understand course material. Over half of the students (50.1%) regularly prepared for exams by discussing or working through the course material with other students while a little lower percentage of the students (49.1%) offered their peers explanation of course material. The students' high engagement in collaborative learning may be generated from the common practices of collaboration in learning among Vietnamese students and the university's wide application of new teaching methods such as group work, project-based learning in recent time that gives students more chances to cooperate with their classmates in learning.

4.2.3. Experiences with Lecturers

This theme consists of two aspects of student engagement — students' perceptions of their lecturers' teaching practices and students' interactions with lecturers outside the classroom. The findings yielded a mixed result. Effective Teaching Practices scored the highest mean of the ten indicators whereas Student-Staff Interactions had the lowest. In terms of teaching practices, over 3/4 of survey participants thought their lecturers clearly explained course goals and requirements, taught their courses in a well-organized way and used examples to explain difficult points (76.9%, 82.9%, and 76.1%, respectively). This indicated the high quality of teaching

practices in this university. Moreover, nearly 2/3 of students (61% and 64%) believed that their lecturers provided them with sufficient formative feedback and prompt and detailed feedback on their tests and assignments.

Contrary to positive responses to the teaching practices, students responded negatively to questions about their interactions with teaching staff. Data revealed that Vietnamese students had extremely limited interactions with teaching staff. To illustrate, only 13% and 14% of the respondents regularly discussed their career plan and their academic performance with lecturers. The corresponding percentage rates in the US were 44% and 35%, respectively. More than a quarter of students (26.7%) had in-class discussion on course topics, ideas, or concepts with teaching staff, but the rate decreased to 18.4% for outside class discussions. The limited student-lecturer interactions may be caused by the restriction of lecturers' availability to students and the hierarchical and formal relationship between students and lecturers. The former lessens students' chances to contact with lecturers, the latter does not promote students' informal interactions with staff outside the classroom setting. As student-lecturer interactions strongly and positively correlate with student intellectual growth, attitudes and values, educational achievement, and career choice and development [2], it is necessary for the university to promote the student-lecturer interactions.

4.2.4. Campus Environment

Students' evaluation of the two aspects in this theme: Quality of Interactions and Supportive Environment was contradictory to each other. The majority of students thought that they received substantial support from their institutions to help them succeed academically, do well socially, and effectively deal with financial and non-academic issues (60.9%, 70.9%, and 57.1%, respectively). This demonstrated students' high appreciation of the university's support. However, students did not highly rate the quality of their relationship with other members of the university, including peers, lecturers, academic advisors, and professional staff. Less than half of the total sample (44.2%) found their relationship with peers excellent. This rate considerably reduced when students evaluate the quality of their interactions with lecturers (17.2%), academic advisors (19.3%), and professional staff (12.6%). These percentage rates were quite low when compared with the American students' ratings on their relationship with lecturers (56%), academic advisors (51%) and professional staff (41%). This suggested a need for the university to improve working and social relationships between students and their peers, teaching staff and professional staff. A friendly and supportive campus environment may promote a student sense of belonging, increase student satisfaction and persistence, and have a positive influence on outcomes [2].

4.2.5. Academic Effort

The student responses to the items within the indicator Academic Effort yielded mixed results. On one hand, nearly 3/4 of the total sample (71.1%%) frequently worked hard to master difficult content and 85% of the respondents tried best to complete their assignments at the highest possible degree. On the other hand, over half of the students admitted that they did not often complete readings or assignments before class or worked harder than they could to meet their teachers' standard or expectation (56%, 59.3%, respectively). The majority of the respondents (68.7%) spent less than 15 hours on class preparation in a typical week. A further calculation using the midpoints of response ranges indicated that the students averaged 12 hours preparing for class. This was significantly less than the expectation that students should spend at least 20 hours per week studying at home. These findings showed that students did not devote much effort to their study. This is consistent with complaints about Vietnamese students' neglect of and laziness in their learning [21, 22]. A number of reasons can be given for student insufficient effort, including

• The strong focus on summative assessment more than on formative assessment. In this university, the midterm test and final examination represent 80% of the final grade of a particular course. Class participation and other assessment tasks contribute to the remaining percentage. This disproportion could lead to the fact that students who neglect their study throughout the semester but expend their time and effort on studying just before examinations can easily pass the course. Data showed that 65.5% of the respondents acknowledged that examinations greatly challenged them to do their best work. This phenomenon is also noted by Chinese researchers when measuring Chinese student engagement [23].

• Low levels of academic challenge. As previously mentioned, without being intellectually challenged, students do not exert enough effort and time to broaden their knowledge, to meet the course's requirements, and to reach their fullest potential.

5. CONCLUSION AND SUGGESTIONS

This study described the nature and the level of undergraduate student engagement in Industrial University of Ho Chi Minh city. The data revealed both positive and negative aspects of this university's student engagement. On one hand, students believed that they experienced a high level of effective teaching practices, received relatively sufficient supports, both academic and non-academic, from the university, and actively participated in collaborative learning activities. On the other hand, the data reported students' limited interactions with lecturers, their negative perceptions of their relationships with major agents of socialization on campus, and their low levels of engagement in various forms of deep learning. More worryingly, the results of the analysis indicated that the university's students did not devote adequate time and effort to their learning. These features basically result from the specific university's characteristics as well as Vietnamese cultural characteristics. They include Vietnamese tradition of good but dominantly didactic teaching; the common practice of collaboration among students and the university's application of new teaching methods; the restricted availability of lecturers and the formally hierarchical relationships between students and staff, both teaching and professional; and the prevalence of summative assessment.

To promote student engagement, first, the university should improve assessment practices that should put more emphasis on formative and continuous assessment. It is suggested that the more tasks, assignments given to students, the more time and effort students will put in their study. Then, students are forced to work hard throughout the semester, not only before examinations. The increased quantity of tasks may considerably expand lecturers' workload. This can be solved by the utilization of online learning management systems or the employment of teaching assistants who are in charge of supporting lecturers with instructional responsibility, assisting and supervising students in class, and marking students' tasks and homework. Second, the university's course work and examinations should emphasize higher-order learning and reflective and integrative learning tasks. Such kinds of tasks pose students with greater intellectual challenge, stimulate their learning interests and require them to become more engaged with their study through spending more time studying, making better use of institutional available resources, and actively seeking help from staff and peers. Last but not least, the university should improve the relationships between students and other agents of socialization on campus to create a more friendly campus environment.

In conclusion, the university should adopt more student-centered and learning-focused approaches to its policies and practices in teaching and learning with a stronger emphasis on the promotion of student engagement and thus could improve its quality of training.

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