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Exploring Instrumental, Expectancy, and Valence Components in Motivation for Learning among University Students in Selected ASEAN Country

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Mohd Farhan, Ahmad.

Abstract

Motivation is a reason for acting or behaving in a particular way while learning is a structured combination of human elements, materials, facilities, equipment, and procedures that influence each other to achieve learning goals. In others words, motivation for learning is intrinsic, where learners are interested in the course content, or extrinsic, where learners are interested in earning a course grade or credit. Motivation for learning is an important factor for students to achieve success in learning from various backgrounds of study in the university. But, the instrument, expectance, and valence components for motivation learning in university need to be explored and analyzed. This paper aims to identify the instrumental, expectancy, and valence components that influence learning motivation. To obtain the data quantitative research method with survey instruments was used. The survey questionnaire is divided into 4 sections including demographic profile, instrument components, expectancy components, and valence components. About 141 students from selected higher education institutions in ASEAN countries Malaysia, Singapore, Thailand, Brunei, and Indonesia participated in this research. The findings show that extrinsic goal orientation is the most influential factor to motivate the student to study. So that the lecturer has to prepare students to obtain the highest grade by implementing teaching and learning sessions effectively and achieving all the objectives needed.

Keywords: Study in University, Higher Education in ASEAN Country, Motivation for Learning, Extrinsic Factors for Studies, Examination-oriented Study
Introduction
Background of Study

University is defined as an organized tertiary learning and training activities and institutions that include conventional universities such as arts, humanities, and science faculties and more specialized university institutions in agriculture, engineering, science, and technology. The concept of the university also includes post-secondary institutions like polytechnics, colleges of education, and all forms of professional institutions (Assié-Lumumba, 2007). According to Cambridge Dictionary (n.d.), a university is a place where people study for an undergraduate or postgraduate degree. According to Merriam-Webster Dictionary (n.d.), a university is an institution of higher learning providing facilities for teaching and research and authorized to grant academic degrees.

For example, in Malaysia, universities are divided into public universities and private universities. Public universities are categorized into three groups, namely Research Universities, Comprehensive Universities, and Focused Universities (technical, educational, management and defense). To date, there are 20 public universities in the country comprising five Research Universities, four Comprehensive Universities, and eleven Focused Universities. The Research University focuses on research areas, the Comprehensive University offers various courses and fields of study, while the Focused University focuses on specific areas related to its establishment (Ministry of Higher Education, n.d.). Public universities are government-funded higher education institutions that are under the purview of the Ministry of Education Malaysia. They can generally be divided into three major categories; public universities offer undergraduate and postgraduate programs, and sometimes pre-university foundation year and diploma courses, polytechnics and community colleges that offer programs at certificate and diploma, and public colleges which offer certificate and diploma level programs (Education Malaysia, n.d.).

Private universities are non-government aided and fully funded by the private sector. These institutions are under the jurisdiction of the Ministry of Higher Education and are stringently governed by various legislations to ensure the provision of quality education, such as The Private Higher Education Institutions Act 1996, The National Council of Higher Education Act 1996, The Malaysian Qualifications Agency Act 2007 (replaced National Accreditation Board Act, 1996) and National Higher Education Fund Corporation Act, 1997 (Amendment, 2000). To date, there are about 500 private institutions approved by the Ministry of Higher Education Malaysia and are categorized as a university, university Colleges, foreign University Branch Campuses, and non-university status (Study Malaysia, n.d.).

However, in this paper, the study focuses on the motivation for study among university students in ASEAN countries such as Malaysia, Singapore, Brunei, Thailand, and Indonesia.

Statement of Problem

Motivation in learning is a very important element in ensuring that learning goals can be achieved. The factors that influence a student’s motivation depend on the individual himself in terms of his ability to motivate himself to continue learning or the individual’s confidence to achieve his goals. The study of Jusoh and Ismail (2020) found that the role of intrinsic orientations and extrinsic orientations is important because both of these orientations make training participants will be more motivated to learn. The study of Mokhtar et al., (2020) on the level of learning motivation for 400 first-year students of Universiti Sains Islam Malaysia who have taken the course on Appreciation of Ethics and Civilization in
semester 1I, 2019/2020 is good. Overall, the mean score for the construct of learning motivation for the respondents of this study is high with a mean value of 3.505 to 4.825. The highest mean score is for the item "I want to get good marks in tests, quizzes, assignments, and projects". Thus, external or extrinsic motivation for students has become a major factor in the level of motivation of students to continue to learn and achieve goals.

Students who are well motivated will always strive to continue learning until their goals are achieved. However, not all students will have good motivational values at all times. Certainly, there will be certain factors that hinder or cause the value of this learning motivation to decrease which ultimately interferes with the learning goals. Among the constraints are that there are students who do not have personal gadgets or smartphones, do not have enough internet data, and also do not have direct internet access (Ngadi, 2020). These shortcomings certainly interfere with the smoothness of the learning process which ultimately causes the learning goals cannot be achieved. In addition, students who are deprived of digital facilities also often struggle in the use of appropriate time because online learning at home with an unconducive environment such as noise due to conversations between family members and so on causes the student to lose focus and cannot appreciate ongoing learning as described in the study (Don et al., 2022).

Instructors who conduct online learning will usually use three forms of approaches either synchronous, asynchronous, or a hybrid (combination of synchronous and asynchronous). The study conducted by Makhtar et al (2021) found that students’ attitudes, motivations, and levels of understanding had significant differences for the three stated types of online learning. This means that students' attitudes and motivations, as well as understanding, are different if their lecturers use different online learning approaches. The study of Makhtar et al (2021) also found that the range of attitude scores for the synchronous and combined groups was higher than the range of scores for the asynchronous group. Students’ attitudes are usually driven by motivation within themselves. Thus, the motivational factor of students becomes a determinant of their attitude in undertaking online learning. The approach chosen by the instructor will also influence the attitude and motivation of the students as has been proven in the study of (Makhtar et al., 2021). However, students will definitely have a higher motivation in learning when going through it traditionally which is face to face than online.

This study is done to investigate learners’ motivation for studying in higher institutions of learning. Specifically, this study is done to answer the following questions;

- How do instrumental components influence learning motivation?
- How do expectancy components influence learning motivation?
- How do valence components influence learning motivation?

Literature Review
Studies in Institution of Higher Education
The effectiveness of training, teaching, or course is closely related to learning orientation, performance goals, learning motivation, instruments, and self-efficacy (Tziner et al., 2007). All these elements greatly contribute to success in achieving the objectives and goals of a lesson. In addition, Cury et al (2006) stated that individual behavior and self-perception are among the most important factors in determining a person's success in mastering learning. This is also the case in Islamic Studies where holistic motivation is at the highest level followed by extrinsic and intrinsic domains among students (Asbulah et al., 2018).
Motivation to deepen religious knowledge in ASEAN countries, especially Malaysia, Indonesia, and Brunei is driven by the environmental and cultural conditions of the local community in addition to the uniqueness of the Arabic language itself (Teh et al., 2009). Similarly, the level of holistic motivation of graduates in the field of Islamic studies is driven by a deep desire to delve deeply into the contents of the Qur'an and to understand the hadith of the Prophet Muhammad Peace be upon him. In addition, the desire to understand the meanings of the prayers as a whole in Arabic also increases the motivation of graduates to deepen Islamic studies (Bakar et al., 2009). This factor may be different from other fields of study, who value reward and recognition factors as key factors for deepening something (Dornyei et al., 2001).

Problems of Learning Online
Engaging in online learning do help a lot, especially in term of time consumption. However, there are still problems that occur from this mode of learning. According to Hiranrithikorn (2019), students engaging in online learning have no social interaction, especially undergraduate and young students. In other studies, online learning as perceived by the students is said to cause a lack of self-discipline, inability to manage time efficiently, difficulties in handling technology, lack of direct interaction with the instructor, more work compared to face to face class, and unable to complete an assignment due to insufficient time (Al Rawashdeh et. al, 2020). Apart from that, technical problems like internet connection also demotivate students to take online classes. In one interview conducted by Evișen, et al., (2020), three students clearly mentioned that they had problems with the internet connection to attend the online classes.

Past Studies
Past Studies on Challenges in Studying in Higher Institutions of learning
There is a past study by Parker et al (2017) about understanding the different challenges facing students in transitioning to university, particularly with a focus on ethnicity. This paper summarizes some of the key findings in determining the challenges facing students from different backgrounds in their transition to university. The respondents are 289 students of black and minority ethnic (BME) and white ethnic (WE) who studied in different courses including biological sciences, biochemistry, pharmacology, biomedical science, nutrition, pharmaceutical science, and pharmacy within the School of Life Sciences, Pharmacy, and Chemistry. Based on the findings of the study 59.7% of BME students and 78.6% of WE students study at the university to improve their career prospects. The study shows that among the motivation to further study in university is to achieve better career prospects so that the program and syllabus in the university should be aligned and helpful for students to work in various fields of the job.

Past Studies Motivation for Learning
There are several studies that have been conducted to identify the influence and effect of motivation on online learning. Ishak & Talaat (2020) conducted a quantitative study to identify the level and relationship between the factors of readiness and motivation of students towards online learning. The study involved a total of 312 respondents and found that the factors of readiness and motivation were at a moderate level with mean values of 3.14 and 2.91, respectively. The results of the Pearson Correlation test analysis found that there was a moderately significant relationship between student readiness and online learning with a correlation value of 0.690. Meanwhile, the relationship between student
motivation and online learning found a strong significant relationship with a correlation value of 0.813. The study concluded that although students are prepared in terms of readiness and have good motivation in accepting the concept of online learning, there are several factors that should be refined so that there is no delay in the process of knowledge delivery.

Makhtar et al (2021) also studied the attitudes, motivation, and achievement of students but with a focus on learning physics subjects. This study has analyzed data from a total of 113 respondents consisting of Form 4 students who took physics subjects in schools under the Ministry of Education Malaysia selected at random. This study wants to identify two aspects of student motivation, the desire of students shown in the exploration of challenges and the fun shown by students in the learning session. The fun aspect of learning Physics can be illustrated through positive feelings while learning Physics, carrying out activities, and telling stories about physics. While for the aspect of students' desire in exploring challenges, students show efforts to overcome problems in learning physics by doing additional reading and exploring information on their own. The study concluded that students showed a positive attitude towards physics subjects through online learning while students' motivation was less positive and less encouraging.

This study is rooted in Vroom’s (Vroom, 1964) Expectancy theory and Pintrich & De Groot’s (1990) motivational scales. Vroom (1964) presented three important components that motivate people to perform something. According to Rahmat et al (2022) learners’ emotions can influence their motivation toward learning. Positive emotions can lead to positive motivations and vice versa. In the context of this study, motivation refers to learners’ motivation to learn or to embark on a learning journey. The first component is (a)
instrumentality and this is seen as a means to an end. Learners learn due to the fact that the end product of learning can serve some purpose to them. This purpose can behave (i) intrinsic goal orientations, (ii) extrinsic goal orientations, and even contain (iii) task value beliefs (Pintrich & De Groot’s, 1990).

Next, Vroom (1964) reported that expectancy is the state of thinking or hoping that something (especially good) will happen. In the context of the study, this hope is realized from the learners’ (i) perception of self-efficacy, and (ii) control beliefs for learning (Pintrich & De Groot’s, 1990). Finally, Vroom (1964) said that valence is the perceived value that a person puts on the outcome. In the context of this study, this refers to the learners’ tendency to put a value on what they are learning. This value is influenced by the learners’ (i) affective components (Pintrich & De Groot’s, 1990).

**Methodology**

This quantitative research is done to investigate how learners use instrumental and expectancy components as well as valence in their learning. The instrument used is a survey adapted from Vroom (1964) components combined with Pintrich & De Groot’s (1990) motivational scales. 141 respondents were purposively chosen to answer the survey. The survey has 3 main sections. With reference to Table 1, section A has items on the demographic profile. Section B has 12 items on instrumental components, section C has 7 items on expectancy components and section D has 5 items on valence.

**Table 1- Distribution of Items in the Survey.**

<table>
<thead>
<tr>
<th>SECTION</th>
<th>CONSTRUCT</th>
<th>VARIABLE</th>
<th>No Of Items</th>
<th>Total Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>INSTRUMENTAL COMPONENTS</td>
<td>a) Intrinsic Goal Orientation</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Extrinsic Goal Orientation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Task Value Beliefs</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>EXPECTANCY COMPONENT</td>
<td>a) Students’ Perception of Self-Efficacy</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Control Beliefs for Learning</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>VALENCE</td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF ITEMS</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 2 presents the reliability statistics for the instrument. SPSS analysis revealed a Cronbach alpha of .911 thus showing high internal reliability of the instrument used. Data is collected online via Google Forms. Data is then analyzed using SPSS version 26. Analyzed data is presented in the form of percentages and mean scores to answer the 2 research questions.

Findings

Findings for Demographic Profile

According to Figure 2; The origin of respondents, Students from higher education in Malaysia are the majority to answer the questionnaire (92%), followed by a student from Brunei about 4%, Indonesia 2%, and others 1%.

Figure 2- Percentage for Origin

According to Figure 3; The place of study, UTM has the majority of respondents (52%), followed by UiTM (37%).

Figure 3- Percentage for Place of Study
According to Figure 3, the most respondents who answered the questionnaire of this study were students from UTM (52%) then followed by students from UiTM (37%). Next are students from UNIKL (5%), UNISSA (4%), and others (2%).

![Figure 4- Percentage for Gender](image)

According to Figure 4, the gender of the most respondents who answered the questionnaire of this study is female with a total of 65% and male is 36%.

![Figure 5- Percentage for Age Group](image)

According to Figure 5, the highest age group who answered the questionnaire come from age of 20 to 25 years old with 56%. It is then followed by the age group of 18 to 20 years old with 36%, 25 to 30 years old with 5%, and 31 years and above with 3%.
Figure 6 shows the percentage for discipline. The highest percentage goes to Engineering with the percentage of 30%. It is then followed by Others discipline with 28%, Islamic Studies with 23%, Business Studies with 13% and Education with 6%.

Based on Figure 7; respondents who are in the first and second semester at the university are the most respondents who answered the questionnaire which is 58%, followed by 16% are students from semesters 3-4. While only 14% of students represent semesters 5-6 and 12% for students from semesters 7-8.
According to Figure 8; The main factor of the motivation to learn is self-Interest which accounts for 40% of the overall findings. The support factor from the family contributes to 23% while career progress is also a motivating factor to learn which is 19%. While the lowest factor that motivates studying is the salary which is only 6% and the other 12%.

Findings for Instrumental Components

This section presents data to answer research question 1: How do instrumental components influence learning motivation? In the context of this study instrumental components are measured by (i) 4 items in intrinsic goal orientation, (ii) 3 items in extrinsic goal orientation, and (iii) 5 items in task value beliefs.

While intrinsic and extrinsic goal orientation to measure instrumental components shows that doing well in the class and achieving good marks are the most influential and motivating factors for students to learn.

![Figure 9- Mean for Intrinsic Goal Orientation](image)

According to Figure 9; the majority of participants valued that the most satisfying thing for them in this program is trying to understand the content of the courses. This item had the highest mean score (Mean = 4.1). The results also showed that for two items (2 and 4) the mean score was second higher for intrinsic goal orientation (Mean = 3.7). While the lowest mean score was received for item 1.
(ii) **Extrinsic Goal Orientation**

![Figure 10- Mean for Extrinsic Goal Orientation](image)

Figure 10 shows the mean for extrinsic goal orientation. There are 3 statements that need to be answered by respondents related to this topic. The statement that obtained the highest mean number (4.3) was the statement related to “Getting a good grade in the classes is the most satisfying thing for me right now” and also the statement “The most important thing for me right now is improving my overall grade point average, so my main concern in this program is getting a good grade.” Then followed by the statement “I want to do well in the classes because it is important to show my ability to my family, friends, and others” with a mean of 4.1.

(iii) **Task Value Beliefs**

![Figure 11- Mean for Task Value Beliefs](image)

According to Figure 11, the mean for task value beliefs, understanding of the subject matter of the course is important shows the highest mean of about 4.3, followed by the importance of learning course material and course material is useful to learn which’s mean score 4.2, next, a student like the subject matter mean 4.0 and the others students able to transfer what he learns from one course to other courses shows mean 3.7.
Findings for Expectancy Components

This section answers research question 2: How do expectancy components influence learning motivation? In the context of this study, expectancy components are measured by (i) 5 items in the perception of self-efficacy, and (ii) 2 items in control beliefs for learning.

(i) Students ‘Perception of Self-Efficacy

According to figure 12, the highest score of the mean for Perception of Self-efficacy goes to three items which are ECSEQ1I believe I will receive excellent grades in the classes, ECSEQ3I’m confident I can do an excellent job on the assignments and tests in this program and ECSEQ5Considering the difficulty of the courses, the lecturers, and my skills, I think I will do well in the classes with the score mean 3.8. Meanwhile, both items ECSEQ2I’m confident I can understand the most complex materials presented by the instructors in the courses and ECSEQ4I’m certain I can master the skills being taught in the classes score mean of 3.7

(ii) Control Beliefs for Learning

Figure 13- Mean for Control Beliefs for Learning
According to Figure 13; item 2 (I try hard enough, then I will understand the course materials) had a higher mean score of 4.2 than item 1 (I study inappropriate ways, then I will be able to learn the material in the courses of this program) in control beliefs for learning.

Findings for Valence

This section presents data to answer research question 3: How do valence components influence learning motivation? In the context of this study, valence is measured by 5 items.

Figure 14 shows the mean for valence. There are 5 statements that need to be answered by respondents related to this topic. 3 statements share the highest mean with a value of 3.7 which is the statement “When I take a test I think about how poorly I am doing compared with other students”, and “When I take a test, I think about items on other parts of the test I can’t answer”. Then followed by the statement “When I take tests, I think of the consequences of failing” with a mean value of 3.6 and then the statement “I have an uneasy, upset feeling when I take an exam” with a mean value of 3.4.

Conclusion

Summary of Findings and Discussion

The findings on how instrumental components influence learning motivation shows that most students are depending on their marks or grade to study. This means a student who achieves more marks pretends to have more motivation to study besides intrinsic requirements less motivate students to study. It’s confirmed by Tanveer et al (2012) who said that students are motivated to learn from external sources through assorted kinds of rewards and grades. Ullah et. al (2013) in their study also stated that 54% of their respondents agree that achieving good academic grades motivates the students to learn. The findings on how expectancy components influence learning motivation show that the respondents believe if someone studies in inappropriate ways and try harder, he will be learning and understand the material of the course and be motivated to study.

- How do expectancy components influence learning motivation?
- How do valence components influence learning motivation?
<table>
<thead>
<tr>
<th>Type of Motivation</th>
<th>Total Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>3.8</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Table 3- Total mean for Intrinsic and Extrinsic Motivation

The mean score (refer to table 3) between 3.8 to 4.2 of intrinsic and extrinsic goal orientation to measure instrumental components shows that doing well in class and achieving good marks are the most influential and motivating factors for students to learn. It believes that student is still pleased with exam-oriented education which results in a negative point of view with the education process who view education as nothing more than merely passing the examinations (Kirkpatrick, 2011). It also kills the creativity of the student and does not encourage their self-ability. The average mean is between 3.4 to 4.2 for the result of the perception of self-efficacy and beliefs for learning shows that student expectancy really influences and motivates students to study hard and it depends on their self-skill learning. The role of the lecturers, in this case, is more to facilitate and encourage students to make a revision and to answer the test correctly. While valence components' mean scores between 3.4 to 3.7 show that valence components also influence students to learn. It's related to achieving a good grade in the examination which is mentioned before.

**Pedagogical Implications**

Motivation to study plays a significant role in the career continuity and future of students studying in higher learning institutions. Various factors were identified to contribute to the matter, among them are teaching and learning instruments, expectations, and valence factors of a student.

Based on the findings of this study, the examination-based teaching method and getting the highest marks in the examination have caused students to tend to learn to pass the examination only. This has caused them to work hard to get the highest marks in the exams and in a negative perspective, there are also intents to imitate and plagiarism just simply wanting to get the highest marks. It is also seen to eliminate universal values and civilizations centered on religious and moral values among students and make a student like a robot. However, this examination-based teaching and learning method can be reduced by encouraging students to use their creativity and skills in learning a discipline of knowledge.

**Suggestions for Future Research**

Therefore, for the future of observational learning, research and the production of new innovations must be increased. In this way, students can learn something new in more depth and understand what is being learned theoretically and practically. Such teaching methods will foster the generation of new ideas and new innovations that are much needed for the convenience of today’s society. Through this method, various new technologies in line with the development of IR 4.0 can be introduced.

It is hoped that this study can raise awareness among policymakers at the ministry of higher education to form an integrated curriculum that combines elements of innovation and invention among university students and not just based on assessment in examinations only. The lecturers are also expected to encourage students to mobilize ideas and creativity to produce new innovations that are beneficial to the universal human being. At the student level, the culture of cut n paste, plagiarism, and imitation should be avoided by innovating
the theories learned in the lecture room to produce high-quality and competitive final projects.

Reference


