Enhancing students' learning motivation for better academic performance: An empirical case in Dong Nai Province, Vietnam

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ABSTRACT

Learning motive, motivation, and their relationships to study results have been interesting research topics attracting the special interest of numerous scholars in searching for appropriate educating and training approaches for students to well satisfy the requirements and demand of labor marketplace. By clarifying the different connotations between two terms "motive" and "motivation", this paper focuses on identifying the determinants of learning motivation of students in engineering majors. In an empirical case in Dong Nai province, Vietnam, seven key determinants are found, including (1) Social environment; (2) Family and friends; (3) Learning environment; (4) Personal perception; (5) Personal ambitions; (6) Living viewpoint; and (7) Living location. The finding sets a sound foundation for rational proposals towards academic faculty, education institution, students and their families to enhance students' learning motivation.

1. Introduction

In recent years, identifying the determinants of learning motive and the relationships between the motive and learners' results has attracted the special attention of many researchers worldwide because it is considered as a "golden key" to help educators approach and explore the learners' potentials. Kasabah et al. (2016), Son (2013), and Hac (2002) claimed that "learning motive determines the outcome and effectiveness of most educational activities. Learning to do tests is different from learning to perceive problems, and even more different from learning to be a human being". In fact, we can assess the probability of success and purpose of life of learners through their learning motive during their study at the education institution. Therefore, different learning motives will make learners have different approaches to their learning and make their abilities different; i.e. there is a significant difference in the learning ability between people with and without clear learning motives. With right learning motives, they will be more active in learning, more honest in their exams, and more interested in improving their learning skills and self-

study as well as fostering necessary skills for their future. In other words, the learning motive plays important role in orienting and stimulating learners to be more active with their learning activities (Giang and Nhat, 2014).

Learning motive is found influenced by several subjective factors such as self-confidence, occupational excitement, responsibility, self-control, and other objective factors such as social environment, learning environment, family and friends. In the case study of learning motive of students in Hanoi University of Science and Technology, Oanh (2008) found that learning motive, and especially self-assertion motives of students are strongly influenced by factors like student's responsibility and some objective factors such as social environment, learning environment, and friends. However, the data analysis technique used in (Oanh, 2008) failed to clarify the relationships among different learning motives as well as provide sufficient evaluation of which motive takes a "guiding role". This was then remedied in the study by Thao and Duc (2013) where it was concluded that graduate students in the non-specialized English class had higher internal learning motives than external ones because they felt excited from the challenges in their lessons, the discovered knowledge and approaches to fully comprehend their assignments.

Meanwhile, using the reliability analysis and exploratory factor analysis, Nhan and Thuy (2014) argued that the learning motives of students in

Vietnamese major in Can Tho University are influenced by four factors, including: (1) curriculum, instructional materials and faculty competencies, (2) academic relevance and the attractiveness of other disciplines, (3) teacher evaluations, school facilities and the difficulty degree of their learning modules, and (4) the relationship between skills, classroom knowledge and practical works. Giang and Nhat (2014) suggested that the learning outcomes of students in Binh Duong University were strongly influenced by two internal motives (learn to have professional skills and learn to acquire knowledge) and an external one (learn to obtain a university degree). However, the use of descriptive statistics, t-test and ANOVA fails to quantify the specific impact of these motives on learning outcomes.

However, Tin and Loan (2011) pointed out that learning motivation, curriculum and subject content, lecturers, living conditions, practice and practical experiments, facilities, and teaching methods have a profound effect on students' learning attitudes. As such, a new term "learning motivation" appears. Therefore, the implications of the two concepts, learning motive and learning motivation, should be clarified before the determinants of either learning motivation or learning motive are identified.

Consequently, this paper is organized as the following. Section 2 provides fundamental issues in differentiating the definitions of the two terms and a research model proposed in this study while Section 3 presents empirical results from scale reliability analysis and linear regressions. Managerial implications are discussed in Section 4; and concluding remarks are presented in the last section.

2. Literature review

In Vietnamese terms, the two concepts "motive" and "motivation" are often used interchangeably because there is some overlap between them. However, they are actually different (Rey, 2014; Peters, 1956). Since they are relatively abstract, readers also find "confused" in clearly distinguishing their differences (Nielsen and Parker, 2012). This study proposes a novel approach to tell their difference; specifically, motive is the reason to do something while motivation is the deepest reason in leading us to do a series of actions. Thus, this study suggests the following structure to distinguish these two concepts: "I do this because I want to ... (motive) ... to ... (motivation) ...". For example, "I try to study hard because I want a good diploma, get a good job to escape from poverty"; i.e. my motivation - a good diploma and a good job explains why I am trying to study hard meanwhile the need to "escape from poverty" is the key driving force making me study hard. Or another example, "I try to study hard because I want to high score on my academic subjects in order to earn a good diploma"; i.e. getting high scores is my learning motive while earning a good diploma is the driving force for all of my learning activities.

This distinction is also suggested by many educational psychologists; for example, Noe (1986) defined "learning motivation as the desire to participate and fulfil the content of a subject or curriculum" while Pintrich (2003a, 2003b) argued that motivation helps to explain why people act, maintain action, and help them accomplish their assignments or tasks. Similar concepts of learning motivation can be found in the researches by Reiss (2012), Madela and Constanta (2010), Genovese (2003), James (1998), McCombs (1991), and Schiefele (1991), etc. Cole et al. (2004) and Rowold (2007) found positive effects of learning motivation on the cognitive outcomes of students during the learning process. In addition, learning motivation will help learners to improve critical thinking and self-control (Spratt et al., 2002; Murphy et al., 2005), become more enthusiastic, interested, active and comfortable to participate in learning activities (Spratt et al., 2002), and contribute to their success (Ames, 1990). As such, more attention is to be paid to learning motivation than to learning motive. Consequently, this study aims at identifying the determinants of learning motivation instead of learning motive.

Learning motivation consists of internal motivation and external motivation (Ngo, 2005; Huitt, 2011; Uan et al., 2003). Their specific components were summarized by Huitt (2011) from the synthesis of many theories of motivation in the psychology field, such as Heider (1958) and Weiner (1974); Vroom's expectation theory (Vroom, 1964); theory of the difference in perception of Festinger (1957); Maslow's (1954) demand hierarchy, etc. Due to the different cultural characteristics of Eastern and Western countries, the components need to be properly selected and adjusted. Accordingly, this study proposes a new factor named "students' living viewpoints" to be considered in the shaping of students' learning motivation because different viewpoints lead learners to set different goals for their lives, which has a profound effect on their actions or learning activities.

Thus, from the components proposed by Huitt (2011) and related works as described above, this study proposed a research model as shown in Fig. 1.
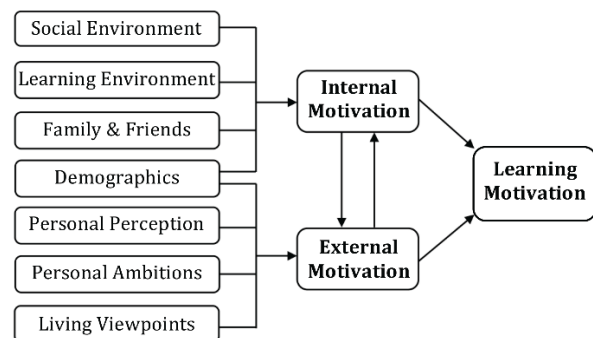

Fig. 1: Proposed research model

In this model, in addition to identifying factors affecting internal and external motivations, their dynamic relationships are also investigated; because

in many cases, when learners fail to have enough internal motivation, the external motivations help learners to participate, learn to improve their knowledge and skills, and then gradually engaged in that field, i.e., their internal motivations are then formed accordingly. On the opposite case, when learners have enough internal motivation, they may fail to be interested in external stimuli; however, when internal motivation is not strong enough, they need to find external motivations to continue to develop their internal ones (for example, finding funding sources to continue their researches, etc.).

3. Research methods

To achieve the research objectives, as a typical example, this study conducted surveys towards students studying in engineering majors at five universities and colleges in Dong Nai Province, Vietnam. Following discussion with ten educators/ faculties and a pilot study with the participation of 35 students, the observed variables were refined and improved to make an official survey questionnaire which includes two main parts: (1) information on demographic characteristics: sex, age, living area (rural or urban), school year, and (2) criteria for assessing learning motivation. A total of 1,167 pieces of hard copies were directly delivered but only 665 pieces were collected (with the rate of 56.98%) as many students did not enthusiastically participate in the survey. Among the 665 observations, there were 537 pieces valid; equivalent to 46.02% of the total delivered copies. The analysis results are presented in Section 4.

4. Empirical results

4.1. Descriptive statistics of participants

Table 1 summarizes the subjects surveyed in this study. Accordingly, most of the students participating in the survey were juniors. Most of the investigated students are under 23 years old and live in urban areas. Notably, demographic characteristics are one of the affecting factors in the proposed research model shown in Fig. 1.

4.2. Scale reliability analysis

The reliability of the investigated scales was evaluated with Cronbach's Alpha coefficient. Practically, in a socio-economic field, a factor is considered to be reliable when its Cronbach's Alpha coefficient is at least 0.6 and its item-total correlation is at least 0.3 (George and Mallery, 2003). The analysis results of the scale reliability are summarized in Table 2 which clearly shows that all six factors are internally consistent. With the mean values shown in the last column of Table 2, among the six factors, the students believe that their personal perceptions, living viewpoint and learning

environment, with their respective average score of 4.31, 4.18 and 4.11.

Table 1: Descriptive statistics of participants

		Frequency	Percentage
Gender	Female	273	50.84%
	Male	264	49.16%
Age range	18-20	151	28.12%
	21-22	227	42.27%
	>22	159	29.61%
Living area	Rural	239	44.51%
	Urban	298	55.49%
School-year	Freshman	62	11.55%
	Sophomore	91	16.95%
	Junior	289	53.82%
	Others	95	17.68%

4.3. Linear regression analysis

The linear relationships between the investigated factors and the external motivation and internal motivation are determined by linear regressions. In this study, students' learning motivation is not affected by their demographic characteristics, such as gender, age and school-year. It is because the majority of the students surveyed were juniors; their ages and school-years were insignificantly different, so these demographic characteristics failed to be statistically significant in these regression models. The analysis results are shown in Table 3.

Table 3 also shows that the learning environment and family and friends have the most significant impact on the student's external motivation; social environment and living areas come next. The results in Table 3 indicate that educational institutions can have greater impact on students for better outcomes by providing them better learning environment, such as improving the quality of teaching staffs, new teaching methods, subject contents to be regularly updated and offering more practice opportunities for their students. However, students need to choose a specialized major well matching their interests and aspirations so that they are more passionate in their learning activities. Therefore, it is very important for the students to have the guidance and advices from related education bodies as well as their parents in getting to know possible majors before choosing an appropriate one for their study.

In addition, the family situation also affects the students' learning motivation; for example, the poor students will strive to learn well in order to escape from poverty, or if born in a family with a good learning tradition, students also have to try to make their family reputation more glorious, etc. Communication with their friends also has a certain impact on their learning motivation. Being far away from their home and parents, students really need to have their friends who can understand, offer advices in difficult situations, etc. usually have a certain influence on their future direction in general as well as their learning motivation.

In addition, if students have a good idol to follow, know the development trend of their desired career as well as know the level and skills expected from the industries, students tend to have better learning

motivations and study harder. As such, their living environment (either rural or urban areas) also influences their learning motivation. Practically, it is found that students in rural areas usually have higher learning motivation than those in urban areas because of the impact of social environment mentioned above.

Table 2: Scale reliability analysis

Factor	Observed variables	Item-total correlation	Mean
Social environment (α=0.857)	I have an idol to follow.	0.821	3.31
	I know the trend of industry development.	0.703	
	I know the skills I need for my future career.	0.816	
	I know the standards I need for my career	0.741	
Family and Friends (α=0.781)	My family provides advices in my learning process.	0.639	3.52
	I was encouraged by my family during my studies.	0.743	
	I know the family situation and try my best.	0.692	
	I get positive feedback from friends.	0.674	
Learning environment (α=0.858)	The teacher helped me get more motivated.	0.816	4.11
	Teaching methods help me more passionate in my learning activities.	0.845	
	Learning facilities help me love my learning.	0.664	
	Course contents help me understand practical problems better.	0.773	
	Process for practice and exercises helps me explore the knowledge.	0.816	
	The field of study is aligned with my aspirations.	0.701	
Personal perception (α=0.751)	I can learn better in a fair environment.	0.501	4.31
	I could learn better if I know I would have a better chance.	0.506	
	I have good intellectual ability so I study well.	0.551	
	I am passionate in researching and studying.	0.683	
Personal ambitions (α=0.782)	I set certain goals for each stage of my life.	0.519	3.61
	I am confident enough to solve problems encountered.	0.502	
	I can overcome difficulties, obstacles to achieve goals.	0.521	
	I have the ability to control myself in many situations.	0.518	
Living viewpoint (α=0.861)	In my opinion, living needs to be dedicated, not just enjoyful.	0.725	4.18
	All work needs to be done with heart and the virtue.	0.722	
	Talent and diligence are the keys to success.	0.784	

Table 3: Linear regression analysis

Dependent variable	Independent variable	Std. Coefs.(*)	Sig.(**)
External motivation	Social environment	0.528	0.012
	Family and friends	0.721	0.018
	Learning environment	0.798	0.023
	Living area	0.712	0.041
Internal motivation	Personal Perception	0.624	0.032
	Personal Ambitions	0.645	0.014
	Living viewpoint	0.561	0.033
	Living area	0.147	0.029
Learning motivation	External motivation	0.698	0.000
	Internal motivation	0.682	0.000

Notes: * Standardized coefficients; ** Significance level

Among the factors affecting the internal learning motivation, personal ambitions and personal perceptions play the most important role. That means, if students can effectively set their goals in each stage of their lives, control themselves, be confident and bravery enough to deal with their problems and obstacles, their learning motivation is usually stronger. In the meantime, if students well appreciate the social justice and the opportunities to develop their careers, they tend to have better learning motivation. This finding further explains why the quality of students trained in Vietnamese educational institutions has been decreased recently. It is because of the fact that while many good graduates are struggling to find the right job to work, to develop their talents and dedicate themselves to social service, other graduates with less ability but better social relationships can easily take good working positions which should be assigned to talented people; i.e. that is an injustice. This is not only true in the public sector but also for Vietnamese organizations and enterprises. This issue has been discussed extensively in the mass media in the recent years. This injustice has significantly reduced students' learning motivation, leading to a decline in the quality of student outcomes. However, that is just an objective cause. The fact that students' passion for searching and exploring the scientific world is one of the key factors to nurture their learning motivation. However, despite the injustice, they still have a positive learning motivation if they are well aware that they will have many other better opportunities to work in foreign invested, joint-venture companies instead of state-owned or private Vietnamese ones.

In addition, their living viewpoints also have a positive impact on their learning motivation. If students know that living is for giving, not for enjoying, they tend to have higher learning motivation. If students know that "even if they are not smart, not talented but just hard working and ethical, they can still succeed in their careers", they certainly have higher motivation. Moreover, as the perception about social justice is different from those living in rural and those in urban areas, the living area is found statistically significant in this study.

With the Pearson's correlation of 0.437 between the internal motivation and external one, these two drivers are considered moderately correlated. This further confirms our initial view of the positive relationship between these two components as presented in Section 2. In addition, also from Table 3, with the obtained values of standardized regression coefficients, external motivation is found to have a strong and positive impact on the students' learning motivation. Thus, in the learning process, factors such as the learning environment, social

environment as well as family and friends can change their learning motivation.

5. Managerial implications

With the findings in Section 3, the following managerial implications are proposed for education institutions and educators to have proper actions in terms of innovating their academic programs, curricula and training activities to help their students strengthen their learning motivation for their better academic performance.

5.1. For lecturers

Lecturers are the ones directly transmitting the passionate love of science and creativity, inspiring beautiful dreams as well as orienting the future for their students to determine their own goals and have correct learning motivation and attitude to perfect themselves. Therefore, faculty members must be role models in all teaching activities; specifically, they should have good ethics and professional qualifications.

In the moral aspect, in recent times, the phenomenon of moral corruption of many teachers has seriously affected the faith and the respect of the students towards their teachers. Therefore, when determining to be teachers, a noble profession in society, they should work with their hearts and their soul. The generosity, tolerance and dedication to instruct the students to access certain knowledge and improve their personality and ethics are important factors for lecturers to develop the potentials of their learners. In this way, the faculty can fulfil the educational and training role expected by related stakeholders. Therefore, each teacher must first self-adjust, exercise and act with moral standards and exemplary work.

In the past, lecturers mainly focused on their teaching plans and failed to pay much attention in shaping the personality and living viewpoints for their students. Positive viewpoints and orientations in moral and standard behavior of a useful citizen should be shared by teachers to timely shape and nourish the soul of their learners. Faculty members should consider this issue important as it affects the students' internal motivation and their learning motivation.

Next, teachers need to constantly improve their professional skills in the field they teach. Participation in short-term, long-term training or industry training workshops is essential for them to capture changes in their field. Another form is to undertake research and publish their research results on scientific journals or seminars. With this way, teachers can easily build up and continually update the content of their teaching materials and engage their students. At the same time, faculty should grasp the level of their students to use appropriate teaching methods and study loads. Active teaching methods should also be used to stimulate their skills in researching, learning, and exploring as well as solving practical problems.

As discussed above, social injustice has a negative impact on the students' learning motivation. However, faculty members need to help their students realize that besides the negative side, there are many other good opportunities in the society to strive for; and if they try their best with a positive learning motivation, they will succeed in the future. Such "clearing advice" is critical to help students have correct learning motivation, which is an indispensable role of the nowadays teachers. Therefore, in order to do well in this role, teachers must be rich in their living experiences with a deep understanding of the right and wrong sides of society. Through such educational sharing, students will have a better understanding of many social aspects and avoid bias to better prepare and be more positive in their lives.

5.2. For education institutions

Facilities that serve students' learning needs have a significant impact on their learning motivation; therefore, the leaders of education institutions should have proper investment in the number and quality of their facilities and equipment for the teaching-learning activities. Especially, they should have a good source of reference materials that learners can easily access, and equipment used in relevant subjects such as tools, laboratory materials, projectors, fans, air conditioners, internet service, etc. For a rich source of reference materials for learners, they should have a digital database linked with other reliable sources from other institutions.

In addition, improving their training programs aligning with social needs is also important for education institutions to pay attention to. A training program must be continuously updated to the practical changes in the industry. This will help the students to have the right attitude in equipping necessary skills and knowledge before their graduation. Seminars and exchanges between businesses, faculty and students will certainly improve students' learning motivation because they well know the development trends of the industry they are pursuing, the skills and qualifications they should have to satisfy the requirements of the industry, etc.

6. Conclusion

Clearly determining the learning motive and learning motivation significantly help education institutions and educators have appropriate approaches to provide necessary knowledge and skills for their students to meet the needs of the society. Therefore, many studies on the learning motive and learning motivation have been conducted worldwide. By clarifying the implications of the concepts of "motive" and "motivation", this paper focuses on the factors affecting learning motivation. It is found that there are seven main

contributing factors, including: (1) social environment; (2) family and friends; (3) learning environment; (4) personal perceptions; (5) personal ambitions; (6) living viewpoints; and (7) living area. From these findings, some managerial implications are proposed to improve students' learning motivation.

Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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