ACADEMIC MOTIVATION OF UNDERGRADUATES: A LITERATURE REVIEW

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Abstract. This article aims to review the studies on undergraduates' academic motivation through analysis, synthesis and generalization of 36 publications around the world (28 publications) and in Vietnam (8 publications). The results of the analysis show that there are 06 research approaches to undergraduates' learning motivation: (1) fundamental theories, (2) current state and expression, (3) classification, (4) measurement, (5) impacting factors, (6) prevention, intervention and enhancement. Based on the overall results, the article also proposes a number of future research directions on university students' academic motivation: (1) the direction of integrating diverse theories, (2) a continuum comprising a motivation, academic extrinsic motivation and academic intrinsic motivation, (3) the change and conversion between types of students' academic motivation on the continuum, (4) groups of students with different ages, in different majors; (5) consideration of the undergraduates' subjective factors (autonomy, positivity, self-understanding, and resilience), cultural factors of school, family, community, ethnicity; economic, political factors and so on having an impact on student's academic motivation; (6) preventive measures and evidence-based interventions for undergraduates' academic motivation.

Keywords: Undergraduates, academic motivation, research approaches, research directions.

1. Introduction

Undergraduates' academic motivation (AM) is the driving force that motivates, directs, empowers and sustains learning activities for the purpose of meeting the needs and stimulating students' own learning interests.

Undergraduate is a significant age for the maturity of each individual; this is the foundation stage, the transition from youth to adulthood; the stage of accumulating a lot of knowledge, qualities and life skills, especially basic vocational skills. In fact, there are students loving their chosen profession, actively and diligently self-study, and are interested in learning and developing themselves to become future professional workers. However, there are also students studying at university without knowing their academic goals and are not really interested in the profession. Some students actively study because of objective and external requirements, but actually, they are still passive, not self-determined, not really creative and excited, and self-disciplined in learning and self-training activities [1]–[3].

In the current educational reform context, with many changes in Vietnam's and the world's educational situation, education requires more initiative and creativity from both lecturers and

learners; hence, investigating the current status of students' AM is to get evidence of strengths, weaknesses of students in academic activities, subjective and objective factors affecting students' AM. On that basis, suggestions and development of intensive research trends on Vietnamese students' AM in order to improve autonomous motivation (intrinsic AM, learning interest) and form active learning habits for them are mentioned.

This study aims to provide an overview of domestic and international works on AM in general, and Vietnamese undergraduates' AM in particular. The results of publications are analyzed, synthesized and generalized to find out the fundamental theories commonly used to study university students' AM, and the current research trends on undergraduates' AM in the world and in Vietnam. The paper also proposes some research trends about AM among students in Vietnam nowadays.

2. Content

2.1. Methodology

The article utilized a systematic review approach, which included a thorough search as well as an inclusion and exclusion process for prospective studies. Database and search tools from Google Scholar, MEDline, PsycINFO, PsyARTICLES, Eric, Sociofile, Social Science Citation Index and the local libraries such as the University of Education Publishing House, Vietnam National University Press and the Vietnam National Institute of Educational Sciences, Hanoi National University of Education were applied in order to discover relevant researches. The linked descriptive search phrases that were created to direct the search are as follows: Part 1, there are "academic motivation" OR "learning motivation" OR "intrinsic academic motivation" OR "academic amotivation" OR "learning amotivation"; Part 2, there are "undergraduates" OR "university students" OR "college students". They are written in English and Vietnamese.

The original search process of the article titles yielded 1054 results, after reviewing the titles and removing repeated researches due to searching through multiple channels, there were 240 articles remaining. Then, we read the abstracts for publications that meet the criteria: (a) reflecting the theories, the models and the structure of AM mainly on undergraduates; (b) basic quantitative and qualitative research; (c) being English and Vietnamese studies; (d) being published in reliable and reputable sources between 1983 and 2021. Eventually, only 36 papers that satisfied the specified criteria were used to synthesize data for this article.

2.2. Findings and Discussion

The results of the analysis among 36 publications (08 Vietnamese publications and 28 English publications) show that there are 06 research approaches to undergraduates' learning motivation as following:

2.2.1. Researches on fundamental theories about undergraduates' academic motivation

Theoretical models on AM are very diverse, this research chooses to review several in-depth theoretical models on AM including (1) behaviorism and activity theory, (2) cognitive theory, (3) self-efficacy theory, (4) expectation-value theory, (5) mindset theory, (6) goal achievement theory, (7) self-determination theory, (8) social comparative theory and (9) humanistic theory.

According to behaviorism, reinforcement improves behavior and causes learners' AM to develop. The effectiveness of behaviorism in motivating people is determined by beneficial reinforcements. These theoretical models so far show that behavioral reinforcement strategies are mainly effective with preschool and primary school students rather than junior high school, high school students and older students [4]; although to a certain extent, it still works at all ages. Moreover, activity theorists study the undergraduates' AM in the process of activities; in students' diverse activities and interactions at home, at university, college and in the community; in relation

to specific educational activities of university and lecturers. In summary, based on the behaviorism and activity theory, the researchers will focus on extrinsic motivation, also the role, impact and strategies of reinforcement on the formation and development of learners' AM.

The cognitive theory of motivation focuses on learners' need for hierarchy; ability or predictability and understanding of the concept of events. In other words, people are active, seeking information to solve personal questions, tasks/assignments [2]. Piaget's concept of equilibration is an example of the need for hierarchy and it is the basis of his theory. When people's cognitive structures are insufficient or inadequate to explain events, they are motivated to change those cognitive structures and this process leads to development. In short, regarding cognitive theory, research will pay attention to intrinsic motivation, specifically how the need for hierarchy as well as understanding and the desire to find information to solve problems influence and form AM in undergraduates.

Self-efficacy is a positive emotional experience and it leads to a passion for solving other problems of an increased level of challenge. The self-efficacy theory AM shows that it influences several aspects of learners' behavior and cognition including task orientation, effort, persistence, beliefs, strategy use and performance [5]. This research direction also shows that mastery performance, modeling, social persuasion, and psychological state play a major role in influencing people's beliefs about their ability to perform a task [6]. In short, according to the research direction of self-efficacy, the research focuses on intrinsic AM, especially the role of self-efficacy in the formation and development of learners' AM.

Regarding expectation-value theory, researchers consider an individual's success expectations and the values they have for success as major determinants of motivation to learn [7]. This theoretical model proposes that in the establishment of AM, learners are more likely to be motivated to learn if they believe that current educational activities bring benefits in the long run.

In the mindset theory, researchers find out how the formation and development of the AM will be affected by students with different mindsets. Dweck emphasizes that fixed and growth mindsets can predict success, resilience and even the ability to learn something new and persevere in one's studies and in life [8]. In summary, the researches regarding mindset theory emphasize the study of learners' intrinsic motivation, focusing on how their thoughts and beliefs about success, failure, and failure experiences motivates them to engage and maintain academic activities.

Goal achievement theory analyzes different types of achievement goal orientation (related to mastery and performance) in establishing and improving learners' AM. Early researches in this area focused on two goals of students by emphasizing mastery goal orientation and performance-approach goal orientation, however recent works indicate three main achievement goal orientations: mastery goal orientation, performance-approach goal orientation, and performance-avoid goal orientation [9]. This theoretical model also emphasizes research on classroom goal structures that aims to create an ideal learning environment to help students maximize their potential in learning

Self-determination theory studies AM according to a diverse AM continuum, including 3 groups with 7 types of AM: 3 types of extrinsic motivation, 3 types of intrinsic motivation and amotivation. This theoretical model considers AM associated with three basic psychological needs of undergraduates, namely autonomy, relatedness and competence; investigates the conditions to satisfy these three needs in the formation and development of students' AM [10].

Social comparison theory considers extrinsic AM, focused on comparing with others' success, proficiency in performing tasks in order to strengthen and promote students' own motivation. Social comparison theory indicates two directions in which social comparison affects performance, where motivation is also prominently noted; they are comparison-level choice and

comparative evaluation [11]. The practical application of the social comparison theory in study of learners' AM has been limited so far.

The humanistic theory describes motivation as an integrated internal force that causes all human beings to grow, develop, and realize their potential. Each individual has an innate "growth principle" that stimulates and directs all human behavior [12]. Research of this theoretical foundation focuses on teachers' teaching methods, instructional strategies and style, teacher-student relationship and classroom atmosphere in encouraging students' learning motivation.

Thus, the overview of the theoretical foundational models of research on AM shows that 09 theories are being applied by researchers in exploring different aspects of AM. The overview shows that current researches on the expression of AM in the world focuses primarily on self-determination theory. The researches on related factors of AM in this review is mainly based on value-expectation theory, mindset theory, goal achievement theory. In Vietnam, it is more inclined to approaches of cognitive theory and activity theory. In order to be able to do a more in-depth study of undergraduates' AM in the world and in Vietnam, more research is needed with a more diverse, up-to-date approach, integrating many theoretical perspectives; as well as expanding the factors affecting the AM such as cultural factors, economic and political contexts, etc. In particular, researches in Vietnam should expand the approach to diverse theories and focus on the overall study of the entire continuum of AM.

2.2.2. Researches on current state of undergraduates' academic motivation

The current status of AM expression has been evaluated on different groups of subjects including primary school students [13]; secondary school students [3], [14], [15], high school students [3]. Vietnam Association for Psychology and Education collected 25 researches on university and college students' AM. The above studies were carried out in many provinces and cities in Vietnam such as Hanoi, Ho Chi Minh, Ba Ria- Vung Tau, Dong Thap, Phu Tho, Thanh Hoa, Ha Nam [3] as well as other countries such as Laos, France [13] with diverse research methods such as questionnaires, scales, interviews and observations. Studies on students also show diversity in the sample group such as pedagogical students, students of political schools, students of the People's Public Security, students majoring in Law, Business Administration, students majoring in English studies and Japanese studies, students of the Faculty of Social Sciences, Natural Sciences, Educational Psychology and Economics [3], etc.

In general, studies have shown that academic activities are motivated by a different motivational system, enjoyment, interest, autonomy, learning choices [13], becoming knowledgeable, pleasing parents, getting a stable career in the future, becoming a useful person, knowing how to behave appropriately, understanding oneself and others, and being respected by everyone, studying in order to get good results in the graduation exam and go to university, find a stable job, earn a lot of money, and improve oneself and being admired by everyone [3]. These types of motivation are related, governing, and interact with each other; in which, there are the motivation that are primary, and there are types of motivation that are secondary. There are also studies that show that students' AM and especially autonomous AM are significantly reduced in adolescence [15].

In fact, there is a lack of extensive and intensive research on students' AM by major/field, age, region, etc. Researches in Vietnam on students AM are still limited; the studies were conducted with a small sample, not considering deeply enough to have empirical grounds for proposing impact measures to contribute to the development of students AM. There is a need for studying AM at a larger group sample, including cross-cultural studies, to examine differences and propose useful strategies for the development of AM for students in different environments, occupations and diverse cultures.

2.2.3. Researches on classification of undergraduates' academic motivation

There are a number of studies that have focused on the research and classification of AM according to the criteria approach, in fact, this specific approach is in essence quite close to the behaviorism/activity approach and the expectation-value theory. According to Oanh, there are three main criteria for classifying undergraduates' AM [16]. First, based on the impacting time of AM on learning activities, there are broad motivation (e.g. studying to get high education, to prepare for future, etc...) and individual, narrow motivation (e.g. learning to be encouraged, avoid punishment, etc…). Second, classification of motivation is based on the relationship between AM and learners' personality, there are cognitive motivation (related to the content and performance of learning activities) and social motivation. Last but not least, based on the impacting direction of AM on learners, there are intrinsic and extrinsic AM. In addition, a number of studies show an intermediary motivation to the system of different AM. This type of motivation is unstable, it is sometimes extrinsic and sometimes intrinsic [16]. However, research dividing motivation into two opposing poles is considered too simple to describe and explain human behavior. Moreover, the actual goals and requirements on quality and learning capacity in the current general education curriculum, especially the requirements on autonomy and self-study capacity, the above studies are still limited in the evaluation and measurement of AM.

From a different viewpoint, the types of AM are divided according to the degree of autonomy in behavior; Specifically, the types of AM lie at different points along a continuum of autonomy. Based on that point of view, Deci and Ryan classified 06 types according to a continuous spectrum and arranged according to the degree of increasing autonomy as follows academic amotivation, extrinsic motivation (external regulation, introjected regulation, identified regulation, integrated regulation) and intrinsic motivation [10]. Vallerand and his colleagues classified 07 types according to a continuum and arranged them according to the degree of increasing autonomy as follows: academic amotivation, extrinsic motivation (external regulation, introjected regulation, identified regulation) and group of intrinsic motivation (to know, towards accomplishment or to experience stimulation) [17]. These classifications create an AM continuum [10], [17]. On that continuum, the types of intrinsic motivation correspond to the highest degree of autonomy and self-determination, and the types of extrinsic motivation represent behaviors with a medium degree of autonomy, self-determination and amotivation expressed the lowest degree of autonomy and self-determination. This division has been applied in research to understand the current status of the AM in Asia such as China [18], and Japan [13]. To date, only a few studies have been conducted in Vietnam, mainly on primary school students [13], junior high school students [14], and university students in a specific area [1].

Research on the classification of AM in the world has come to consider the students' AM on a continuum, with many multidimensional and complex influencing factors; however, there is really a lack of studies looking at the changes and transformations among students' different types of AM. There is a lack of evidence-based research on the factors that influence and promote the transition to each type of AM on the continuum.

2.2.4. Researches on measurement of undergraduates' academic motivation

To assess motivation in education, scientists have researched and proposed a number of tools for younger populations such as the Intrinsic versus Extrinsic Orientation Scale [19], Children Academic Intrinsic Motivation Inventory [20] and The Self-Regulation Questionnaire-Academic. Harter's scale considers that intrinsic motivation is opposed to extrinsic motivation, thus hindering independent evaluation of these two constructs. It also does not measure different types of extrinsic motivation and amotivation [19]. Gottfried's Inventory only assesses the interest and intrinsic AM in specific subject areas (e.g. reading, social sciences) as well as the interest to schools in general, hence it does not measure extrinsic motivation and amotivation [20]. The Self-

Regulation Questionnaire-Academic evaluates intrinsic motivation, and the three regulations of extrinsic motivation; however, it fails to show fully measurable attributes [17].

Designed for the college population, there is the Academic Motivation Scale [17]. The scale was implemented diversely such as AM of postgraduates in education and business majors in East North America [21]; university students in Vietnam [22]… and also in Brazil, Canada, US, and Europe. These results show high consistency and satisfactory reliability of the scale and subscales.

In short, research on building or adapting tools to evaluate AM shows that the assessment and measurement of AM can be done correctly, ensuring validity, reliability and stability. There are not many tools to measure and assess AM in students, in the world and in Vietnam, and there needs to be more research on tools for assessing, classifying and identifying undergraduates' AM. The adaptation of AM scales and questionnaires in different socio-cultural contexts is also the current trend of developing scales as well as the study of new scales is still in research progress. The tools also need to be appropriate for age, industry and culture.

2.2.5. Researches on factors affecting undergraduates' academic motivation

The other popular approach of examining AM is to study the impacting factors on AM. Among the factors related to learners' AM, researchers pay much attention to psycho-physiological characteristics, needs, goals, mindset, and personality.

Studies have shown that AM has a relationship with three psychological needs including autonomy, competence and relatedness [23], mindset [18], achievement goal orientation [24], personality [25], self-efficacy [26], career goals and ideals [3]. Moreover, other scholars demonstrate that other personal characteristics also affect AM such as gender [13], [17], and age [25]. In addition, AM is also influenced by social factors such as family environment, parenting styles [27], family economic status [28], school education such as learning atmosphere, teachers' motivational style [29], teachers' teaching styles [3], teachers - students relationship [3], friends [30], academic materials [31]…

In general, discovering the impacting factors on students' AM is one of the directions with the richest body of research on AM. The sociocultural context is constantly evolving and with the influence of socio-cultural characteristics, psycho-physiological characteristics, needs, goals, mindset and personality also have many changes. Therefore, although many studies in this direction have been carried out, thorough research on new subjects, new locations and updated times still need to be done.

2.2.6. Researches on enhancement of undergraduates' academic motivation, prevention and intervention of negative impacts on undergraduates' academic motivation

Undergraduates' AM can be developed and encouraged through several approaches such as teachers, parents and school management undergraduates.

Regarding school management, they need to focus on quality of lecturers, administrators and staff; curriculum as well as learning and exam schedule. Lecturers are selected and assigned to teach according to their expertise [32]. Lecturers and employees are trained periodically to improve their teaching and professional standard. Simultaneously, schools and teachers shall also provide students with a balanced learning environment so that students can easily adapt to their personality traits, maintain and foster their learning motivation [33]. Curriculum needs to be ensured to be appropriate with practical conditions, meet the requirements of learners and society, and contribute to the improvement of teaching and education quality. Students should be given the most convenient condition in order to learn and perform at their best. Moreover, the college and university's management style favoring student autonomy will have a direct or indirect effect on AM, students' intention as well as behavior of dropping out [34].

Regarding teachers, AM could be developed based on living values and life skills. The

positive living values such as love, respect, honesty, cooperation, peace and so on; life skills such as listening, sharing, caring and so on played an important role in reinforcing, and enhancing the desired behaviors and fostering positive, sustainably intrinsic AM for each student [35]. Concerning personality traits, there was a note for teachers and educational forces that teachers' behavior, teaching and learning methods should be based on the needs and personality traits of each student [33].

On the family side, autonomy support parenting style and parents' warmth and caring enhance autonomous motivation as well as positive learning attitudes and behaviors. Therefore, parents should show care for their children by spending time talking to children, helping children and encouraging children's autonomy such as trying to understand how children see things, listening to their opinions, willing to look at things from their point of view and allow them to do things they love and make their own decisions. Parents' autonomy support, caring and warmth have stronger impact on students' AM, positive learning attitudes than their lecturers and school.

In terms of interventions for students with AM problems or without AM, motivational interviewing has been shown to be effective in improving learning performance and enjoyment, satisfaction, and comprehension of the meaning of the learning activity [36]. This intervention method is based on the self-determination theoretical model. In addition, Vietnamese scholars conducting empirical research point out one of the fundamental ways in the formation, development and disclosure of learners' AM is through the organization of learners' learning activities. This direction studies students' AM by analyzing the content of learning activities and students' orientation to tasks and methods of performing learning activities [3].

In short, researches in this direction mainly focus on understanding external factors to help improve, prevent and intervene the problems of AM for students such as families, schools, lecturers, learning climate, management in education. There is a need for thorough studies on factors from students themselves such as autonomy, mindset, self-regulation, coping ability, ability to understand personality and overcome own limitations, positive and active communication and working. At the same time, it is also necessary to have evidence-based research on strategies of intervention, counseling and consultation in students to have a basis for practical application.

2.2.7. Discussion

Overall, the research results show that: (1) Theoretically, there are 09 trends of researching AM in the world on the basis of 09 fundamental theories. In Vietnam, AM is mainly studied in the direction of activity psychology; in addition, there are a number of studies following the humanistic theory, behavioral and cognitive theory as well as self-determination theory [3]. (2) In classification of AM, a number of studies in Vietnam also focus on researching and classifying AM according to the criteria approach, in fact, this specific approach is quite close in nature to behavioral/activity theory and expectation-value theory. (3) In Vietnamese Psychology researches, the study of AM focuses on understanding the expression and considers the objective and subjective factors that influence students' AM. (4) Studies on AM in Vietnamese students also focus on experimentation of the formation and development of motivation through the organization of learners' learning activities. In general, Vietnamese scholars have inherited and promoted the views on motivation research of Western and Soviet psychologists, and made meaningful contributions to the study of AM both theoretically and practically [3].

From the overview of several directions and approaches, there are several research suggestions on undergraduates' AM. It should be studied (1) in the integration of diverse theories; (2) on a continuum of AM, extrinsic and intrinsic motivation; (3) the change and conversion between students' types of AM on AM continuum; (4) on students of different ages, majors; (5) considering the student's subjective factors (autonomy, positivity, self-understanding and

resilience), factors of school culture, family culture, community, ethnicity; economic and political factors, etc. on students' AM; (6) preventive measures and evidence-based interventions and preventions for undergraduates' AM.

The research suggestion for Vietnam, in particular, are: (1) At present, it is possible to focus on studying undergraduates' AM in more diverse approaches, with more integrated and up-to-date theoretical models; (2) In particular, it is recommended to focus on researching undergraduates' AM with the reciprocal relationship with subjective and objective variables; (3) Empirical studies to improve AM, especially autonomous or intrinsic motivation for students are also necessary to consider family, socio-cultural factors and characteristics of universities and colleges in Vietnam. Results from positivist and experimental studies with convincing evidence on undergraduates' AM can be effectively applied in the system of universities and colleges in Vietnam [3].

This study also has certain limitations that need to be overcome in future studies; namely, an overview of studies by period, searching for more diverse publications on undergraduates' AM with respect to different majors in order to have broad, up-to-date and in-depth data on the research approaches and trends on AM of university students in general and students of each major in particular.

3. Conclusion

The overview study on students AM has pointed out 06 research approaches and 06 further research directions to investigate more deeply the undergraduates' AM continuum.

Further researches in Vietnam on university students AM should consider the currently updated research approach on the world's AM continuum, should be carried out on a larger sample group, focusing on groups of students belonging to each specific major. On this basis, there is practical evidence to propose measures to prevent, intervene, develop and improve the AM for undergraduates in general, as well as students of each major in particular.

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