

FACTORS AFFECTING STUDENT ACADEMIC ACHIEVEMENT: A STUDY OF UNIVERSITIES IN HANOI, VIETNAM

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Abstract:

This paper aims to review and summarize domestic and international literature to identify what constitutes educational quality, as well as to examine the factors that influence student achievement. The paper also highlights relevant findings and draws conclusions from the analyses and research on the topic of student achievement. First, the paper briefly introduces the relationships between quality, effectiveness, and equity; then it provides the context for student achievement at schools; and finally it considers the most important factors that determine student achievement. The results of this literature review will support the conceptualization and conduct of a future experimental study of student achievement.

Keywords: educational quality, teaching quality, students, academic outcomes, academic achievement.

1. Introduction

The Vietnamese education system is increasingly being seen as a pathway to promoting economic national development. The quality of school education becomes important and determines the success or failure of a country. The quality of education is reflected through students' academic achievement. The results of many domestic and international studies have shown that there are many factors that influence students' academic achievement. Identifying the factors that influence students' academic achievement will help to provide evidence-based recommendations for improving educational quality.

The study of a comprehensive overview of the factors that influence students' academic achievement is an important undertaking, as it will provide a foundation for further research to identify the factors that influence the academic achievement of Vietnamese students.

2. Research Content

2.1. Basic Concepts

Education Quality

In the UNICEF1 report presented at the International Working Group on Education (IWGE) meeting in Italy in 2000, it emphasized that there are many definitions of education quality, indicating the complexity and multifaceted nature of this concept. A unified concept of education quality includes: (i) Healthy learners who are well-nourished, ready to participate in learning, and supported by their families and communities; (ii) A safe, healthy educational environment that is gender-sensitive and provides adequate resources and suitable facilities. The curriculum content and related materials aim to achieve basic skills, especially in areas such as reading, writing, mathematics, life skills, and knowledge of gender, health, nutrition, HIV/AIDS prevention, and peace; (iv) Well-trained teachers who apply child-centered methods and effectively manage school operations, conducting thorough assessments to create a conducive learning environment for learners and ensure educational equity; (v) Educational outcomes encompass knowledge, skills, and attitudes, linked to national education goals and active participation in society.

Equity in Education

Equity is the provision of the necessary resources for all individuals to achieve common goals. In other words, the goals and expectations are the same for all students, but the supports needed to achieve those goals depend on the needs of the students (Equity Education, 2019).

According to the OECD, equity in education has two closely related dimensions:

Equality: ensuring that individual and social factors such as gender, socioeconomic status, or ethnicity are not barriers to achieving educational potential; (ii) Inclusion: ensuring that all people meet basic minimum educational standards.

Efficiency

The term "efficiency" is used widely in many different fields of social life with different understandings. According to the Vietnamese dictionary,² efficiency is the combination of the actual results of an activity with the expected results.

FATF (Financial Action Task Force) (2013)³ defines efficiency as "The degree of achieving the specified results".

However, there is also the view that efficiency is different from results in that results are the achievements, while efficiency is placed in the relationship between the achievements obtained and the costs of resources. According to this understanding, Jeremy Bentham and John Stuart Mill, put forward the concept: Efficiency is the ability to maximize total social benefits and minimize total social costs.

Therefore, the term "efficiency" must be understood in both aspects:

- As the true result achieved from specific activities (result, effect)

- The result brought about in comparison with the cost of resources (human, material and financial resources) spent to implement specific activities (efficiency).

According to Trinh Thi Anh Hoa (2018),⁴ educational efficiency is the conformity between the actual educational results and the educational goals. Actual educational results often have a close correlation with investment in implementation conditions (training and development of human resources, financial resources, material resources, etc.) and the impact of educational activities (teaching and learning methods, teaching activities, learning activities, innovation of teaching methods, etc.). Therefore, when talking about educational efficiency, people often compare the actual output results with the expected output results (educational goals) in relation to the investment of resources and the impact of educational activities.

Educational efficiency means achieving educational results with the smallest possible investment, or maximizing with certain investments (Báthory & Falus, 1997).

Academic Achievement

In the study by Tipawan Kamonpattananan (2000),⁶ the results of education are reflected in academic achievement. Academic achievement is an indicator of the effectiveness and quality of education, or the management of learning/teaching activities. Or academic achievement is knowledge, understanding, skills, and learning attitudes that are assessed by tests during or after teaching and learning activities. Moreover, academic achievement indicates the quality of the learner, the value of the curriculum, the quality of learning/teaching activity management, and the competence of the instructor and administrator.

In the article by the research team,⁷ student academic achievement has a main function (Rono, Onderi & Owino, 2014) and is one of the important goals (Narad and Abdullah, 2016) of education, defined as the knowledge that students acquire through teacher assessment, in which students and teachers achieve the set educational goals in a specific period of time, measured by using the results of continuous assessment or testing. The achievement of excellent academic achievement by students is the most important motivation of educational institutions (Adeyemo, 2001). Moreover, academic achievement is extremely important to anyone interested in education (Osiki, 2001). Because, academic achievement is understood as the core, around which are many important components of the education system, that is why student academic achievement is an area of interest for researchers, parents, and policymakers.

Díaz-Morales and Escripano (2015)⁸, academic achievement is understood as the result of the combination of psychological, social, and economic factors, leading to the appropriate multifaceted development of students.

2.2. Context of Student Achievement in Schools

Most experimental studies that measure student achievement are related to student academic achievement, teacher effectiveness, and school quality.

The study by Saumya K., Dr. Monica A., Dr. Nimmi A. (2021) suggests that good academic achievement is considered a prerequisite for ensuring a good job, a better career, and then a quality, meaningful life. Although it can be understood that this is the outcome of education, the impact of student academic achievement in any country is different. Narad and Abdullah (2016) mentioned in their study that at a basic level, the success or failure of any educational institution depends largely on the academic achievement of the learner. They also reiterate the belief that good academic achievement signals better career prospects and therefore a secure future.

Student academic achievement is of immense significance because the economic as well as social development of any country is due to the academic outcomes of the students. The better the academic achievement of the students, the more likely it is to develop a good human resource, who will contribute to the economic and social development of the country (Ali et.al, 2009). Students who perform well to the expectations and standards that society sets will mostly contribute to the growth, development, and sustainability of the society (Akinleke, 2017). Singh, Malik & Singh (2016) presented a direct and significant relationship between student academic achievement and the socio-economic development of a country, because the acquisition of relevant knowledge as well as the development of skills are clearly manifested through the academic outcomes of the students (Farooq, Chaudhry, Shafiq & Berhanu, 2011). This shows a great reason for educators to prioritize the highest attention to student academic achievement (Farooq et al., 2011).

In this context, one of the main measures used to measure student achievement is "GPA" (Stephan & Schaban, 20029), the study group applied GPA (grade point average) to assess the academic outcomes of students in a specific semester. A similar measure was used by Darling (2005), Galiher (2006), Torki (1988), and Hijaz & Naqvi (2006). Other researchers assess student achievement through the results of the previous year or the results of a specific subject (Tahir, S., & Naqvi, S. R., 2006; Tho, 1994) and Cuc Nguyen (2010). Some other researchers have used test results or reviewed the performance of a specific course (Hake, 1988). Grade point average (GPA) has a direct relationship with the aptitude and career potential of individuals, as GPA is considered the standard measure for assessing student academic outcomes.

Hierarchical linear modeling (HLM) models have been used for such analyses. HLM provides estimates of effects and understanding of the sources of variation in achievement scores by separating student-level (within-school) and school-level (between-schools) and provincial-level (between-provinces) variance (Cuc Nguyen, 2010).

2.3. Factors Influencing Students' Academic Achievement

Overview of international research has clearly identified various factors influencing students' academic achievement, including: (i) On the student's side: learning motivation, skills, self-experience, study habits...; (ii) On the school's side: teacher quality, teacher-student interaction, physical facilities, teaching quality...; (iii) On the family's side: parents' education level, family economic conditions... Specifically as follows:

In the study of Jedsarid S., Kasetchai L. (2011), it is argued that student academic achievement depends on three main factors:

Socio-biological factors are innate characteristics, gender, age, and characteristics such as educational background, hometown, occupation, and income, including individual differences that affect students' learning process. For example, there are differences between men and women, and those from different parts of the country, who differ in dialect, customs, and traditions. In terms of economics, families with financial security tend to have more opportunities and receive support to continue their education to a more prestigious university than their less fortunate friends who have to spend time working to support themselves financially and may need additional time to complete their courses. Therefore, the learning process of students can be the result of these different socio-biological factors.

According to Nantawan Chanasit (1997), student academic achievement depends on knowledge, emotional factors, and the quality of education such as counseling services for learning goals, class participation, teacher feedback. That is, low academic achievement can stem from the learner's lack of basic knowledge, financial problems, inconvenient transportation, and parental pressure. In addition, lack of achievement motivation, negative learning attitudes, health problems, personality problems, inadequate basic knowledge, family background including low educational level of parents, low financial status, and poor parenting can all lead to learning problems of the learner, according to the study of Manod Pimthong (2003).

According to Nguyen Cuc (2010), the higher the average number of years of school of the parents, the higher the academic achievement of the children. The academic achievement of grade 5 students in Vietnam will improve by 2.3 points in Vietnamese and 2.8 points in Math if the average educational level of the parents is higher by 1 year. In addition, if the family owns more property, students will have higher academic achievement.

Influencing factors include achievement motivation, study habits, responsibility, and teacher/student interaction. According to Atkinson (1964), Songpol Pumipat (1995)'s definition of achievement relates to goal-directed action that is carried out by self-evaluation and evaluation from others. In the study of Montarat Chupinit (1997), study habits are also considered a factor used to predict student academic achievement and anxiety has a positive relationship with student academic achievement. Regarding adjustment, it is noted that transitioning to a higher level of education requires significant changes: teaching style, participation in different activities, local context. If the learner cannot adapt to the new environment, learning will certainly be affected. In

addition, responsibility has a significant positive relationship to student academic achievement, used to predict student learning outcomes. According to the study of Anongpan Kamwang (2003), poor academic achievement can be due to the learner's irregular attendance, lack of preparation before coming to class, lack of attention in class, no review after class and no participation in class, the refusal to consult with a counselor also affects low academic achievement. Based on the study of Kasetchai Laeheem (2007), the interaction between teacher/student has a positive relationship with academic achievement.

Environmental factors include parental support, teaching quality, and classroom atmosphere. Based on the study of Jiraporn Koonna (1997) and Chatchai Sraithong (1998), parental support has a positive relationship with student academic achievement and low academic achievement can be due to lack of parental counseling (Anongpan Kamwang, 2003). Teaching quality (Chatchai Sraithong, 1998) and classroom atmosphere have a positive relationship with student achievement (Kanda Pongtippanat (1998), Kasetchai Laeheem (2007)).

In the study of Saumya K., Dr. Monica A., Dr. Nimmi A. (2021), they focused on Astin's Theory of Involvement (1997), educational outcomes are determined by specific student input factors (including factors such as the basic demographics of the student: motivation, interests, learning style, learning attributes, etc.), environmental factors (such as physical environment, family environment, communication, curriculum, school organization, and learning environment ...)

According to the student retention model proposed by Tinto (1975), there are four components that play an important role in the success of students in their studies.

In addition, there is a general consensus among researchers that student academic achievement can be understood as a composite of cognitive as well as non-cognitive learner attributes (Lee & Shute, 2010) taking into account the sociocultural framework in which the learning process takes place (Liêm & Tân, 2019). Some similar studies have been conducted by Singh, Malik & Singh (2016).

The study by Krisztián Széll found that the factors influencing student or school achievement, at the student level (e.g., gender, place of residence, family background, learning attitude, motivation, network of connections), of the school (infrastructure, location, school size, atmosphere, number and composition of students), related to the level of teachers (e.g., professional training, teaching attitude, motivational drive, cooperation); and may be affected by educational policy. In addition, it emphasizes that teachers play a major role in contributing to the creation of a quality and successful education, affecting students' development and students' achievement in school (Barber & Mourshed, 2007; OECD, 2005, 2010b).

In Shahnaz Rashid's article, she emphasizes that socioeconomic and school factors significantly affect student academic achievement. Sheldon (2003) provides evidence that a student from a place with higher socioeconomic characteristics will score better on tests than a student from a lower socioeconomic background.

The United Kingdom and Australia are two countries with the longest history of parental involvement at the school level. Around the world, other countries such as Canada and the United States are also working to increase parental involvement. Becher (1984) recognizes the important role of parents and also emphasizes the rights and responsibilities of parents in influencing the education of their children. Experimentally, it has also been shown that parental involvement is one of the key factors in ensuring that students achieve higher and more sustainable achievement (Harris, Chrispeels & Janet 2006). It can be seen that parental involvement in learning will lead to more involvement in the teaching and learning processes. The importance of parents' educational level and behavior on the educational level of their children has been clearly recognized.

Alderman et al. (2001) study on the school choice of low-income families found that private schools serving the poor had lower tuition costs as a share of total educational expenditures (uniforms, tuition, and transportation, etc.).

There is a wealth of research evidence on the impact of school quality on student achievement. Hanushek (1995) examined the impact of school quality on student achievement and found that class size, teacher education, teacher experience, teacher salary, and educational investment all had a significant impact. Paul and Hanan (1994) also conducted a review of research that examined the impact of school quality on student academic achievement, finding that teacher experience was associated with higher student achievement test scores. Alderman et al. (2001)²⁹ studied the school choice of low-income families and found that private schools serving the poor had lower tuition costs as a share of total educational expenditures (uniforms, tuition, and transportation, etc.). Nguyen Cuc (2010) found that the leadership skills of provincial-level administrators actually make a difference in student achievement, with students from provinces where the principal supervises classrooms performing better than students from provinces where the principal does not observe in classrooms.

Conclusion

The study of factors that influence student academic achievement has been a focus of research and application in many countries around the world and in Vietnam in recent years. Most studies have found that student academic achievement is influenced by a variety of factors, including (i) student characteristics: motivation, skills, experience, study habits, health, etc.; (ii) school characteristics: teacher quality, GV-HS interaction, facilities, class size, time students spend in school, etc.; (iii) family characteristics: parents' education, family economic conditions, etc.; (iv) the community environment in which children live: infrastructure, demographic characteristics, inequality in the community, etc. The results of this research will be an important foundation for future studies on the factors that influence student academic achievement.

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