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UNPACKING THE VIETNAMESE EDUCATIONAL PARADOX: A COMPARATIVE ANALYSIS OF PISA PERFORMANCE IN LOW-GDP CONTEXTS

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ABSTRACT

Vietnam consistently achieves high scores in the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA) despite its low gross domestic product, presenting a paradox of academic excellence without the corresponding national development. This study explores the underlying cultural and structural factors shaping this phenomenon. Using a transdisciplinary approach that integrates pedagogy, cultural studies, and philosophy with selected data from a previous nationwide survey of 3,070 respondents and supplementary data from other sources, the study compares Vietnam's educational performance with that of East Asian and Western systems. It argues that test scores, while important, are insufficient indicators of educational effectiveness. The real measure lies in education's capacity to support societal development and individual well-being. The article calls for a rethinking of evaluation frameworks to better align education with long-term national goals.

Keywords: Educational paradox, PISA test results, Vietnam educational status, evaluation model, educational effectiveness

INTRODUCTION

The Programme for International Student Assessment (PISA), conducted by the Organisation for Economic Co-operation and Development (OECD), evaluates the academic performance of 15-year-old students in reading, mathematics, and science every three years. Designed to assess the outcomes of compulsory education, PISA has become a key international benchmark. Vietnam joined PISA in 2012 and has participated in four cycles: 2012, 2015, 2018, and 2022. In each round, a nationally representative sample of approximately 6,300 students from 150 schools was tested.

Vietnam's debut performance in 2012 surprised many observers: its scores exceeded the OECD average, placing it among the top 20 globally. Among 65 countries and economies participating in the 2012 PISA tests, Vietnamese students ranked 8th in science, 17th in mathematics, and 19th in reading. This also made Vietnam the second-highest ranked country in Southeast Asia, after Singapore (OECD 2014: 65).

This trend continued in 2015, where Vietnam ranked 8th in science, 22nd in mathematics, and 32nd in reading (OECD 2016: 44). Figure 1 compares Vietnam's scores in 2012 with those in 2015 and the OECD average. Taking the group of low-income and middle-income countries as the starting point, Vietnam had a gross domestic product (GDP) per capita in 2012 of USD2,190.23 per year. Vietnam's performance has been hailed as "extraordinary", giving rise to terms such a "the Vietnam phenomenon" or "Vietnam effect" (Nguyễn 2016; An 2016; Parandekar and Sedmik 2016).

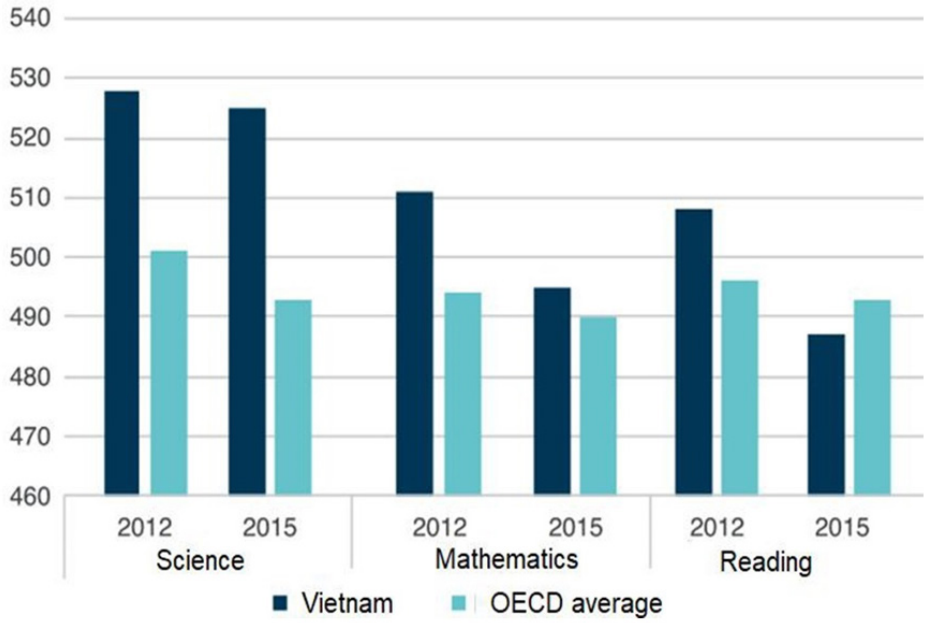

Figure 1: Comparison of Vietnam's 2012 and 2015 PISA results with the OECD average.
Source: Kataoka et al. (2020: 9).

In a statement regarding Vietnam's initial PISA test results, Andreas Schleicher, director of the OECD's education and skills division, wrote on Cable News Network (CNN) that 10% of the most disadvantaged children in Vietnam are doing better in school than average American children. Furthermore, he noted that while Vietnam surpasses the US in both math and science, yet the average annual income of Vietnamese citizens is only USD5,070 compared to USD53,470 in the US (Jackson 2016).

According to two World Bank researchers, Palandekar and Sedmik (2016), Vietnam had the lowest per capita GDP (USD4,098/year based on 2010 purchasing power parity), yet its 2012 PISA scores are comparable to those of high-income and high-quality education nations such as Finland and Switzerland. This result was significantly better than that of Colombia and Peru, both considered low-income countries, even though their per capita incomes remain higher than Vietnam's (as shown in Figure 2).

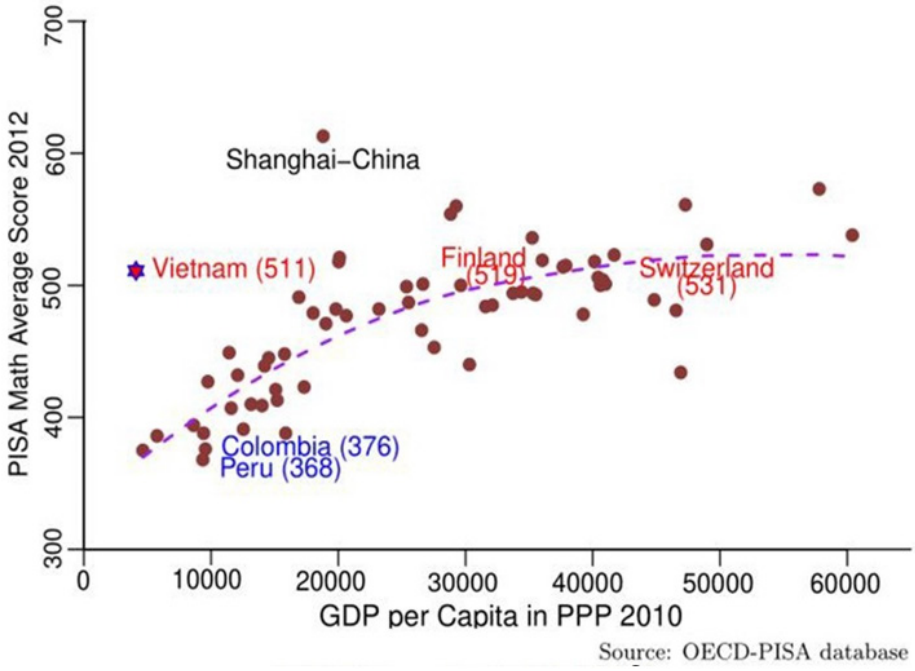

Figure 2: Vietnam's 2012 PISA score vs. GDP per capita vs. other countries.
Source: Parandekar and Sedmik et al. 2016: 2.

In the World Bank's 2020 regional report titled *Vietnam's Human Capital: Education Success and Future Challenges*, Kataoka et al. (2020: 5) commented:

> Education policy makers around the world marvel at Vietnam's success in providing access to general education and in boosting learning outcomes. Despite the relatively low level of economic development, Vietnamese students outperform students in OECD countries on average in the PISA.

Discussing Vietnam's PISA test results, educational researchers from the OECD and the World Bank (World Bank 2014; 2018; Parandekar and Sedmik et al. 2016; Kataoka et al. 2020) largely agree that Vietnam is a country with low GDP but high PISA test results, highlighting a paradox of academic success despite limited economic resources. The positive evaluation of Vietnam's education system by foreign scholars has been echoed by the country national leaders and education officials (*BBC News* 2019a; Lệ 2020).

Comparing the PISA test results with the national GDP, Vietnam's Minister of Education and Training Phùng Xuân Nhạ spoke at the 2019 World Education Forum: "If I use three words to describe Vietnamese education, it would be equality, cost, and efficiency" (*BBC News* 2019a). Regarding cost, he said that the Vietnamese government invests approximately 4% of its GDP in education (approximately 20% of the budget), which is not high compared with other countries. However, thanks to the contribution of the private sector and households, total investment in education has reached approximately 8% of the GDP. This investment is very effective compared with the results of the PISA test. Outstanding Vietnamese students who participated in the international Olympic Games also achieved high scores: 3rd out of 112 countries in the Mathematics Olympiad; 5th out of 86 countries in the Physics Olympiad, 2nd out of 76 countries in the Chemistry Olympiad, and 17th out of 82 countries in the Computer Science Olympiad (*BBC News* 2019a).

In the context of Vietnam's economy with a low GDP per capita of USD2,190.23, the fact that Vietnam's PISA test results have been consistently maintained at such a high level has clearly created a paradox and attracted the attention of international scholars and education managers.

LITERATURE REVIEW

Lê and Bế (2017), from the PISA Vietnam Office, highlighted five key findings: (1) socioeconomic status has no significant impact on Vietnamese students' test scores; however, due to the differences in living conditions between Vietnam and developed countries, this poses a major obstacle to solving practical problems in the three PISA domains; (2) Vietnam's investment and education policies have been insufficient to support educational innovation; (3) Vietnam's general education programme differs somewhat from those of most OECD countries; (4) classroom testing and assessment methods in Vietnam have not yet caught up with those used in OECD countries; and (5) most PISA reading comprehension questions are based on the living environment of OECD countries, which presents a significant challenge for Vietnamese students.

Several international authors have attempted to explain Vietnam's and East Asia's high PISA scores. In their document titled "Unravelling a Secret: Vietnam's Outstanding Performance on the PISA Test", two authors, Parandekar and Sedmik (2016) identified four key factors: (1) students are hard-working and disciplined (with low rates of truancy, tardiness, and grade repetition); (2) teachers are supported by the close supervision of their principals; (3) schools have good infrastructure despite the country's economic status; and (4) parents strictly supervise their children, maintain close communication with teachers, and voluntarily contribute to the school. These four reasons are classified by the authors as "cultural factors" (Parandekar and Sedmik 2016: 26–27). Kataoka et al. (2020) noted that in Vietnam, teachers are comprehensively evaluated through accountability mechanisms and effective monitoring systems from the grassroots to the national level. Education is also highly valued socially, with strong parental expectations, substantial household investment, and students demonstrating diligence and discipline (Kataoka et al. 2020: 11–18).

The research conducted by Tony McAleavy, Tran Thai Ha and Rachael Fitzpatrick from the Education Development Trust and the Vietnam Institute of Educational Sciences (VNIES), presented in the book *Promising Practice: Government Schools in Vietnam* (2018) aims to understand why and how Vietnamese students have achieved outstanding results in two consecutive PISA testing cycles (2012 and 2015). The authors combined policy analysis with fieldwork in four contrasting provinces in Vietnam—Ho Chi Minh City, Hanoi, Binh Dinh, and Ha Giang—to examine the country's educational improvement strategies. The investigation identified five key features of the Vietnamese school system that contribute to its success: (1) the Vietnamese government has always considered education a priority area in national policy; (2) the Vietnamese education operates under a high level of accountability across all levels; (3) teaching is a highly respected in Vietnam, empowering teachers to deliver high-quality instruction; (4) school leaders hold clearly defined responsibilities, primarily centred on the management of teaching and learning; and (5) there exists a close and effective partnership between schools and parents (McAleavy et al. 2018: 17–29).

PROBLEM, PURPOSE, AND METHOD OF RESEARCH

Studies that explain the paradox of Vietnamese education are still not convincing enough. Even in the work titled "Decoding the secret of Vietnam's excellent achievements in the PISA exam",

the two authors Parandekar and Sedmik (2016: 37) acknowledged that they could only explain 50% of the issue, while the remaining 50% is a largely unknown area.

Vietnam's consistently high performance in PISA cycles, which did not align with the OECD's theoretical model, raised questions about the validity of its data. This prompted the OECD to send an observer to Vietnam in 2018 to verify the results. Despite differences between Vietnam's continued use of paper-based tests and the OECD's shift to digital test formats, the monitoring failed to detect any evidence of misconduct or irregular administration (*BBC News* 2019b). However, due to these unexplained discrepancies, Vietnam's 2018 results were not included in the official rankings. In the 2022 PISA cycle, amid the disruptions caused by the pandemic, Vietnam experienced a significant decline. While the OECD countries saw an average decline of 9.3 points, Vietnam's scores fell 47 points across in all three subjects, placing them below the OECD average (as shown in Table 1). Although Vietnam remained the second-highest performer in Southeast Asia (after Singapore), the results indicate signs of instability in its education system. During the COVID-19 pandemic, most countries experienced a decline in PISA scores, but Vietnam's drop was far more severe—47 points compared with the average decline of 9.3 points. This suggests underlying structural weaknesses in the education system, as Vietnam had previously scored above the OECD average in 2012, 2015, and 2018, yet in 2022 fell below the OECD average in all three subjects.

Table 1: Vietnam's four PISA test results (in comparison with the OECD average)

Year; Vietnam ranking/ Total number of participating countries and economies	Vietnam PISA test score (OECD average score; Vietnam ranking)		
	Mathematics	Reading	Science
2012; 17/65	511 (494; 17)	508 (496; 19)	528 (501; 8)
2015; 21/72	495 (490; 22)	487 (493; 32)	525 (493; 8)
2018; –/79	496 (489; –)	505 (487; –)	543 (489; –)
2022; 34/81	469 (472; 31)	462 (476; 34)	472 (485; 35)

Sources: OECD (2014: 65; 2016: 44; 2023: 1); *BBC News* (2019b).

The research hypothesis is that all phenomena are closely interconnected. Therefore, in order to identify the origin of an educational problem in a specific country such as Vietnam, it is necessary to extend the scope of investigation beyond education to the cultural sphere—viewing Vietnam as a representative of a cultural type and comparing it with other cultural types in the world.

This study adopts a transdisciplinary analytical framework that integrates educational theory, cultural studies, and philosophical inquiry, employing a systems-typology approach. A mixed-methods design was employed to examine the Vietnamese educational paradox. The qualitative component involved comparative cultural typologies analysis across three regions—Southeast Asia, East Asia, and the West—based on historical, societal, and epistemological differences in educational values (Tran 2016a; 2016b: 76–86). The quantitative dimension is based on selected data taken from a 2020 national survey on educational philosophy, with a total sample of 3,070 respondents from Vietnam. Supplementary data from OECD PISA reports (2012–2022), World Bank regional assessments, and Vietnamese education policy documents were used to triangulate findings. This methodology allows for a culturally embedded and data-informed exploration

of Vietnam's PISA outcomes. It captures the interplay between international benchmarks and national socio-cultural dynamics, offering a holistic interpretation of educational effectiveness beyond standardised test performance.

TWO WAYS TO ASSESS EDUCATIONAL EFFECTIVENESS

The first and most commonly used assessment, which aligns with the OECD's theoretical model, is based on the assumption of a proportional relationship between a country's economic base (measured by GDP per capita) and educational achievement (measured by test results). According to this assessment, Vietnam represents an unusual phenomenon due to its low-income status but high PISA test results. According to the 2018 World Bank regional report titled "Getting Smarter: Learning and Equitable Development in East Asia and the Pacific":

> The Top Performing Systems include seven economies with an average score above 550 points. All of the highest scorers are middle- or high-income countries. However, some low-income and middle-income countries also perform well. Average performance in Vietnam and in Beijing-Shanghai-Jiangsu-Guangdong (B-S-J-G, China) surpassed OECD member countries. (World Bank 2018: 7)

Figure 3 shows the distribution of PISA scores in science: Vietnamese and Chinese students scored the highest and higher than expected based on per capita.

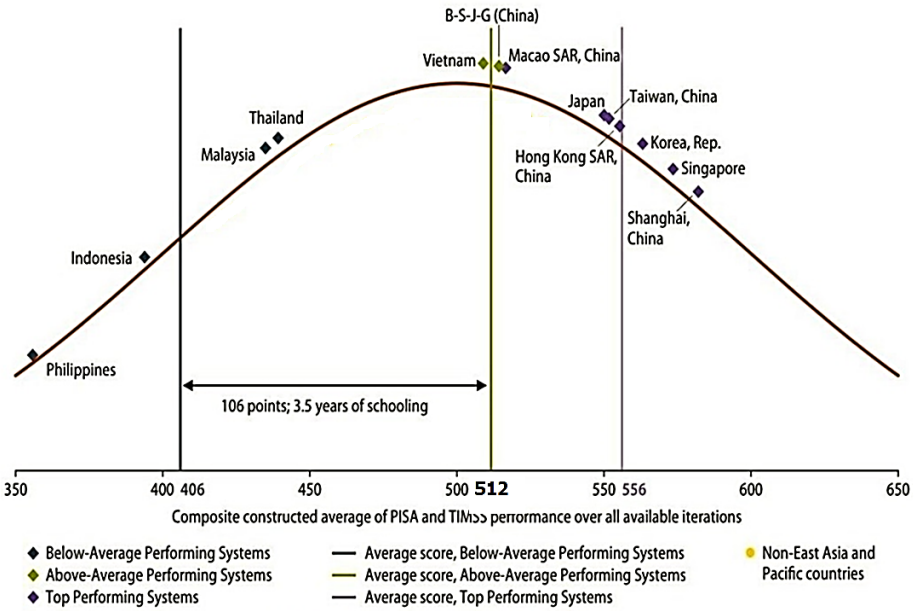

Figure 3: Students in Vietnam and China are among the top performers in developing East Asia.

Sources: World Bank (2018: 8).

However, with the systemic approach, the purpose of education goes beyond exam results to create human resources that contribute to the development of the country. Accordingly, the first method of evaluating educational effectiveness may be termed "assessment based on intermediate outcomes".

This study advocates for the second method, referred to as "evaluation based on final outcomes". The final result of educational effectiveness is the development of society, which can be evaluated according to 5 quantitative criteria: (1) in terms of economy, it is GDP per capita; (2) in terms of human quality, it is the Human Development Index (HDI); (3) in terms of national dynamism, it is the Global Innovation Index (GII); (4) in terms of educational quality, it is the number of top 1000 universities; (5) in terms of scientific level, it is the number of Nobel Prizes. The first criterion (GDP per capita) indicates the material strength; the remaining four indicators indicate the spiritual strength of a country.

For a long time, educational effectiveness has long been assessed primarily through test scores. This view is the product of simplifying the relationship between education, culture, and economy. Although the PISA toolkit has been regularly supplemented and improved, the theoretical basis of the OECD is still mainly a two-way relationship between the economy (GDP) and education (according to the rule, lower GDP means lower quality education); at the same time, the complex relationship between education, culture, and economy has been ignored. This limitation partly explains why the OECD's PISA data analysis team failed to explain the anomalies in Vietnam's test results, resulting in the exclusion of Vietnam's 2018 data in the official rankings.

Among the triad of education, culture, and economy, "culture" occupies a central and foundational role. As a value system created by humans in history, culture is the foundation, goal and driving force of both economic and educational development. As a basic material value, economy is the source of investment for culture and education. As a basic spiritual value, education ensures the sustainability of development and creates human resources for social and economic development (as shown in Figure 4).

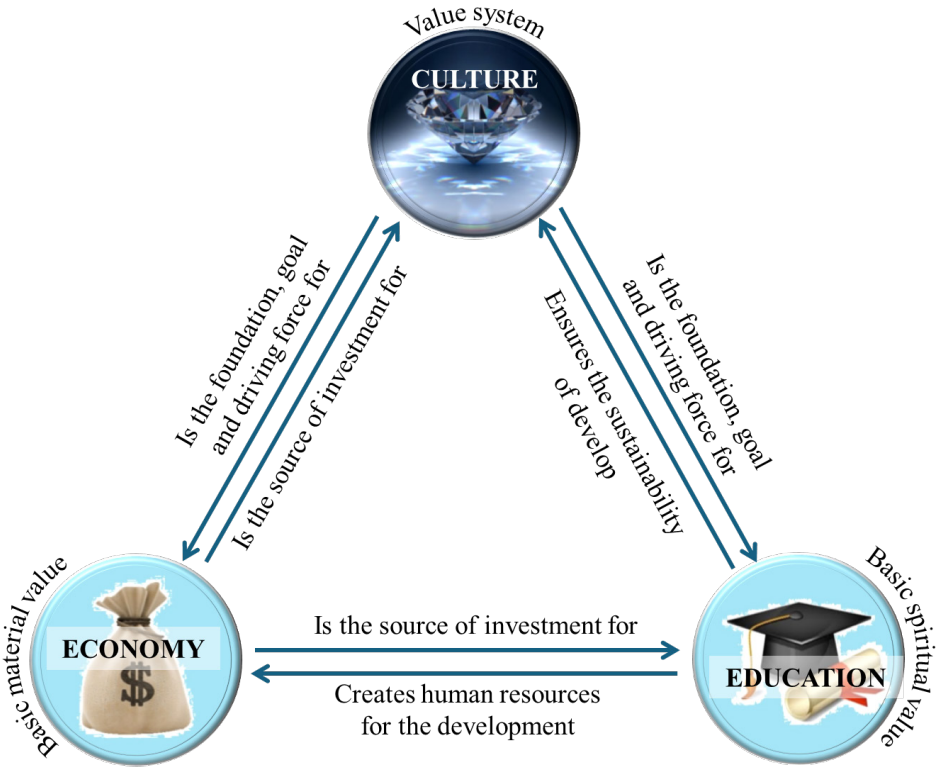

Figure 4: The relationship between education, culture and economy.

EDUCATIONAL EFFECTIVENESS IN THREE CULTURE TYPES ASSEMBLED BY INTERMEDIATE RESULTS

The cultures of the world can generally be divided into three groups, two of which have opposing characteristics, and a third group that has mixed characteristics of both, occupying an intermediate position between them. Pitirim Sorokin's famous four-volume book, titled *Social and Cultural Dynamics*, first published in 1937, speaks of "ideational cultures" (introverted, primarily oriented to the satisfaction of spiritual needs and goals, seeking a high level of satisfaction) in contrast to "sensate/visual cultures" (extroverted, primarily orientated to the satisfaction of material needs, seeking maximum satisfaction in terms of comfort, benefits, and enjoyment) and "idealistic cultures" (intermediate, sensitive to the satisfaction of both types of needs, but more materialistic, only moderately satisfied); he asserts that contemporary Western culture belongs to the second group, extroverted (Sorokin 1957: 20–38). The characteristics of two opposing cultural groups accurately reflect the connotations of the two concepts of "yin" and "yang" that have been discussed by many scientists, including their application to explain American culture (Capra 2000: 106–109; Kim 2001: 17–18).

Limited to the Eurasian continent, scholars have often talked about the opposition "East-West". In 1995, I analysed this opposition from the perspective of the philosophy of yin and yang. The West (Europe) before the Christian era lived by nomadic herding, was less dependent on nature, valued the role of the individual, was always on the move, liked change and development, and had strong analytical thinking, so it was obvious that it belonged to the yang-orientated culture (Tran 1995: 35–43). In 2013, I came to the conclusion that the East was not a unified block in which only Southeast Asia was the cradle of wet rice cultivation, was most dependent on natural conditions, had the highest seasonality, often lived in one place, valued the role of the village, lived in a stable way, had a collective way of thinking, and truly belonged to the yin-orientated culture. East Asia started with nomadic herding, later switched to growing wheat, millet, barley (dry fields), depended on nature to a moderate extent, valued family, preferred stability inside but developed outside, and had a combination and analysis type of thinking, so it belongs to the intermediate culture type (Tran 2013: 87–89; 2016a; 2016b: 76–86).

Thus, the three regions of Southeast Asia, East Asia, and the West have very different cultural origins, leading to different ways of thinking, which in turn lead to different educational philosophies. Accordingly, the traditional educational philosophy of yang-oriented cultures (the West) is centered on building a developed society; its goal is to cultivate thinkers and creators, with principles of democracy, freedom, pragmatism, and individuality. The traditional educational philosophy of intermediate cultural types (East Asia) is based on Confucianism and aims to establish a stable yet developing society; its goal is to cultivate followers, with principles emphasising morality, ritual-based examinations, and social order. The traditional educational concept of yin-oriented cultures (Southeast Asia) focuses on building a stable society, with the goal of training followers (Tran 2022: 131–226). Since Vietnam is the only country in Southeast Asia that has historically been deeply influenced by Chinese culture, education in Vietnam differs from other Southeast Asian countries in many aspects.

For comparison of the three regions (the West, East Asia, and Southeast Asia), the author selected three representative countries for each region. Three countries were chosen to represent the West are the UK, Germany, and the USA. The three countries representing East Asia are China, Japan, and South Korea. Three countries representing Southeast Asian countries are Vietnam, Thailand, and Malaysia.

The comparison shows that the PISA results (educational effectiveness based on intermediate outcomes) in the three types of culture are very different. In the 2018 exam, the average score of the three representative countries in East Asia (China, South Korea, and Japan) was 539.2 points, with an average ranking of 3.5. The average score of the three representative countries in the West (USA, UK, and Germany) was 499.7, with an average rank of 20, which is lower than that of East Asia. Although Vietnam was not included in the 2018 OECD ranking, the corresponding Vietnamese ranking was 10.5, although the average score of the three representative countries in Southeast Asia (Vietnam, Malaysia, and Thailand) was 452.8, with an average rank of 43, which is the lowest among the three regions (as shown in Table 2).

Table 2: The 2018 PISA test results comparison among three regions

Region and country		Position among 78 countries (grade/average score)	Regional average (grade/average score)
East Asia	China (B-S-J-Z)	1.0/578.7	3.5/539.2
	South Korea	6.0/519.7	
	Japan	8.0/520.0	
The West	UK	13.0/503.7	20.0/499.7
	Germany	18.0/500.3	
	US	25.0/495.0	
Southeast Asia	Vietnam	10.5/514	43.0/452.8
	Malaysia	48.0/431.0	
	Thailand	60.0/412.7	

Source: OECD (2019: 18).

Among the three Southeast Asian countries considered, only Vietnam's PISA score approached that of the East Asian nations, exceeding the scores of the three Western countries, and was significantly higher than those of the other two Southeast Asian countries (as shown in Figure 5). Vietnam's comparatively high score can be attributed to its unique cultural positioning. Although geographically part of Southeast Asia, Vietnam is the only country in the region that historically belongs to the "Han Chinese Cultural Zone", sharing Confucian traditions and an examination-based educational heritage (where, in the past, success in state examinations was the sole route to social advancement as a mandarin officers). Vietnam is the intersection of Southeast Asian and Northeast Asian cultures, so it is similar to other Southeast Asian countries in that it is a rice-growing economic region with rural village communities, and similar to China in that it has a strong family and clan community due to the influence of Confucianism. Families have high expectations for their children's test scores and create the best learning conditions for their children. In terms of reading comprehension, because a large number of English teachers in Vietnamese high schools are not up to standard,[1] many families opt to invest in their children's education by enrolling them in private language centres and hiring tutors to train their children. As a result of both familial investment and student diligence, Vietnamese students achieve notably high scores in reading comprehension. PISA data collected from school principals show that while the proportion of parents interested in their children's learning has fallen significantly during the COVID-19 pandemic in many countries and regions around the world, in Vietnam the decline has not been as dramatic: in 2018, 73% of parents proposed discussing their children's progress with teachers, and by 2022 this proportion remained at 62% (OECD 2023: 7).

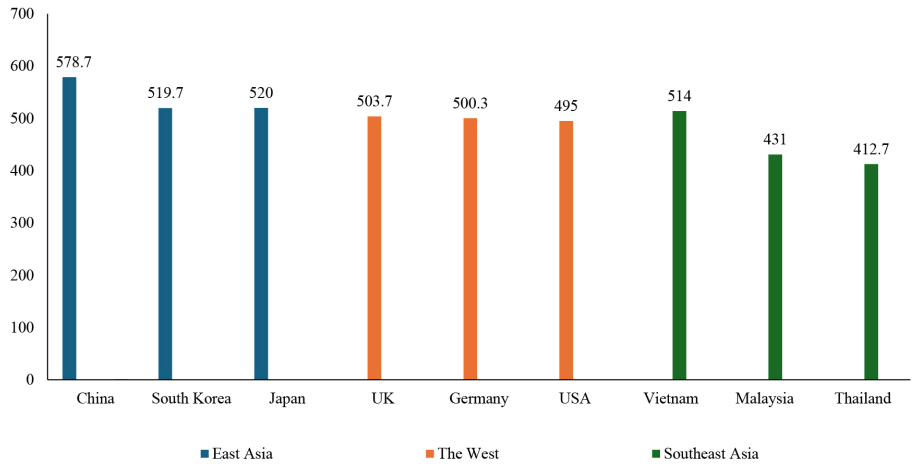

Figure 5: The 2018 PISA test results of nine representative countries in the study.
Source: OECD (2019: 18).

Meanwhile, the Western PISA test scores were low. Among the 20 countries and regions with an average PISA score of over 500 in 2018, 13 were Western countries (accounting for 65%), but most were concentrated in the rankings from 10th to 20th. The United States ranked in the bottom quintile at 25th with an average score of 495.0. In the 2012 PISA test, 29 countries and regions scored higher in mathematics, 22 countries and regions scored higher in science, and 19 countries and regions scored higher in reading. Faced with this fact, OECD Secretary-General Angel Gurría said in a speech during his visit to the United States to share the results of the 2012 PISA; at the other end of the performance scale, the United States also has a below-average share of top performers in mathematics, "At the other end of the performance scale, the United States also has a below-average share of top performers in mathematics" and stated that this "is not only a great loss to the American economy; it is also about people' future" (Gurría 2013).

As Diane Ravitch, former Assistant Secretary of Education of the United States, commented in her blog post "My View of the PISA Scores" (2013), the media has created the myth that "our nation led the world on international tests, but we have fallen from that exalted position in recent years". However, this is not true as since the first survey of international students in the mid-1960s, the US has never been at the top; US students often achieve average or near-average grades, even at the bottom (Ravitch 2013). That is, if we evaluate educational effectiveness based on intermediate results, the paradox is not only in Vietnamese education but also in American education: America has the world's leading economy, but in international assessment tests, it has very low results.

EDUCATIONAL EFFECTIVENESS IN THREE CULTURE TYPES ASSEMBLED BY FINAL RESULTS

However, if we evaluate educational effectiveness in the second way—that is, based on final results—it is reflected in the development of society according to five criteria: (1) GDP per capita index; (2) HDI; (3) GII; (4) number of top 1,000 universities; and (5) number of Nobel prizes.

According to this assessment, the educational effectiveness of the West contrasts sharply with that of Vietnam. Three countries representing the West consistently rank at the top across all five criteria. In comparison, three countries representing East Asia hold second place, while those from Southeast Asia rank lowest across the same measures. Of the nine countries compared, Vietnam ranks last. In four out of the five indicators, Vietnam scores significantly lower than the next-lowest country. For example, Vietnam's GDP per capita is 31 places behind Thailand's; its HDI is 41 levels lower; its GII is three positions worse; and it has two fewer universities in the top 1,000 global rankings than Thailand (as shown in Table 3).[2]

Table 3: Comparison of final educational achievements in the three regions as of 2023

Criteria / Country	Ranking and GDP per capita (USD, 2023, 211 countries)	Human development ranking and index (2022, 218 countries)	Global innovation ranking and index (2023, 132 countries)	Number of universities in the top 1,000 and highest university rank (2023)	Total Nobel Prizes (as of 2023)
USA	6th; 81,695	20th; 0.927	3rd; 63.5	135; 2nd	297
UK	21st; 48,867	15th; 0.940	4th; 62.4	92; 1st	99
Germany	18th; 52,746	7th; 0.950	8th; 58.8	49; 30th	95
Japan	34th; 33,834	24th; 0.920	13th; 54.6	22; 39th	28
South Korea	31st; 33,123	19th; 0.929	10th; 58.6	27; 18th	–
China	68th; 12,614	75th; 0.788	12th; 55.3	50; 16th	8
Malaysia	6th; 11,649	63rd; 0.807	36th; 40.9	11; 351st	–
Thailand	89th; 7,172	66th; 0.803	43rd; 37.1	4; 801st	–
Vietnam	120th; 4,347	107th; 0.726	46th; 36.0	2; 401st	–

In the Western educational model, the product of yang-based cultural type, its educational philosophy is pragmatic, emphasising end results rather than intermediate results. Despite these limitations, this method offers several advantages. The educational system built according to this educational philosophy has one limitation and three advantages. The only disadvantage was that Western students lagged behind their East Asian and Vietnamese peers in international exams. The first advantage of this educational model is that it does not cause stress, thus making the children happy. Second, countries have achieved remarkable developments in these five standards. Third, it is conducive to the sustainable development and stability of society and minimises the types, quantities, and frequencies of adverse phenomena.

In terms of categories, in Western countries, even if there are negative phenomena, they are usually limited to common phenomena in the world, such as students bullying each other at school (Smith 2016), cheating in exams (Trevithick 2024), and so on. Faced with these negative phenomena, Westerners have experienced high levels of self-criticism. The spirit of self-criticism and the acknowledgement of one's limitations are the driving forces behind development.

It was the spirit of self-criticism among the American people that was one of the important driving forces that fueled the "counterculture" movement of the 1960s (Bach 2020: 37–98; 187–278), which in turn triggered a strong demand for social reforms in terms of systems, mechanisms, and operating principles. Education requires the training of genuine socio-political agents with fresh, daring, and pragmatic thinking. In late 2016, American rapper Prince Ea (real name Richard Williams) sued the national education system for being outdated and forcing learners into the

stereotype of "judging if fish can climb trees", which shocked the whole world (Ea 2016). Because of the spirit of self-criticism, there have been heated discussions, such as "US science and mathematics textbooks tend to be 'a mile wide and an inch deep'" (Schmidt et al. 1997: 62); "Math teaching in the US 'inch deep, mile wide'" (Duffrin 2005); "Were our mathematics textbooks a mile wide and an inch deep?" (Gu 2010). Thanks to the self-critical ethos of the authorities, these honest remarks have been heard, acknowledged, and addressed. If a negative case occurs, it is addressed resolutely, quickly, or thoroughly. In 1989, the US Supreme Court in Kentucky ruled that the state's failure to provide equal educational opportunities was unconstitutional and forced it to create and maintain a more equitable education system (Conway et al. 2002: 29). William Singer, the ringleader of the 2019 college admissions scandal that implicated 761 families in the US, faced 65 years in prison and a USD1.25 million in fines in a US federal court (*Fox News* 2019).

The educational model in East Asia is the product of the Confucian tradition of promoting examinations; therefore, it places great emphasis on intermediate and final results. Combined with cultural traditions that value the concept of "face" and family roles, East Asian education consistently ranks highest in midterm results (test scores) and second (after the West) in final results (national development). The limitation of the East Asian education model is that due to a culture that values "face" and an education that values test scores, students suffer from high stress, have unhappy childhoods, and high suicide rates. In 2015, South Korea still had the highest suicide rate in the OECD (Yoon 2015). In 2018, 599 Japanese teenagers under the age of 19 committed suicide; the suicide rate for those aged 10–19 was 5.3 per 100,000 people, the highest in 40 years (Iwamoto 2019).

The educational model in Southeast Asia is shaped by a yin-based culture, which results in generally lower intermediate and final outcomes. This region, historically at a crossroads of various cultural influences—including Chinese, Indian, Muslim, and Western—exhibits a rich diversity in educational principles and content across its countries.

In the 2022 PISA test cycle, eight Southeast Asian countries participated among 81 nations and economies. The rankings of these countries varied significantly, with Singapore achieving the highest position at 1st place, followed by Vietnam at 34th, Brunei at 42nd, Malaysia at 47th, Thailand at 63rd, Indonesia at 69th, the Philippines at 77th, and Cambodia ranking last at 81st. Singapore's top ranking can be attributed to its East Asian cultural characteristics; approximately 74.3% of its residents are of Chinese, and Mandarin is recognised as a second official language. Both Singapore and Vietnam ranked as the leading Southeast Asian countries in the 2022 PISA exam due to their strong influences from East Asian culture.

In the 2020 National Survey on Philosophy of Education conducted by under the author's direction (Bộ KH và CN 2021), which included nationwide interviews with 3,070 participants, the research team enquired about the key advantages of Vietnamese education in recent decades (Question 2). The results revealed that "impressive international exam results" were cited by 55.0% of respondents—which was lower than the 70.2% who identified "successful primary and lower secondary education" as a key advantage and the 61.1% who noted "improved university rankings". This information is illustrated in Figure 6, representing the second assessment of these educational strengths.

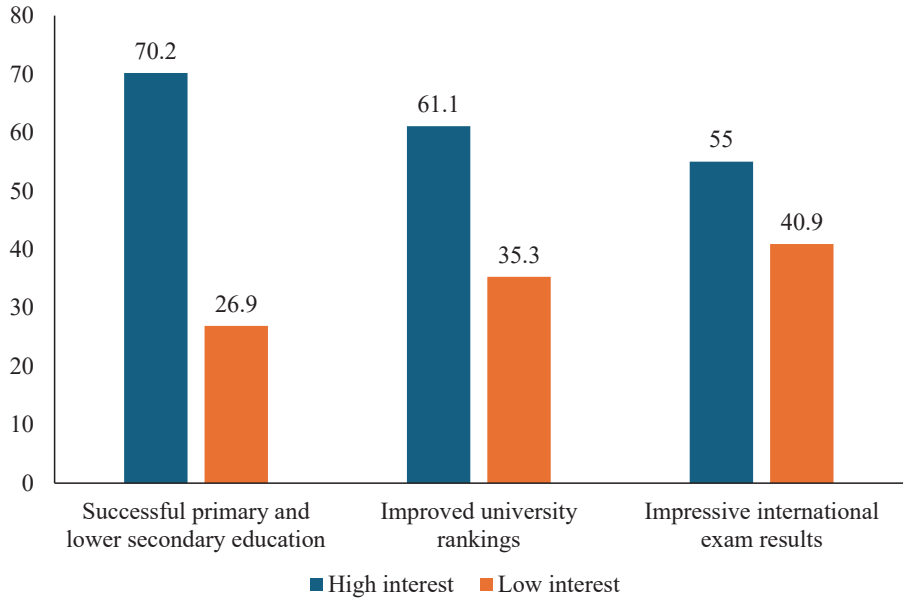

Figure 6: Three outstanding achievements of Vietnamese education.
Source: Tran (2022: 377).

The fact that survey participants do not highly appreciate international test scores and the effectiveness of Vietnamese education is explained by the answers to Question 31 "How did you feel when you heard the news that Vietnamese education was ranked among the top 10 in the world by an international organisation?": 40.1% of the respondents felt "proud", but as many as 40.5% said they "half believed and half doubted", and 19.4% completely "do not believe the judgement of this organisation" (Tran 2022: 377). The latter two groups combined reached 59.9%, which was higher than that of those admitted to the news (as shown in Figure 7).

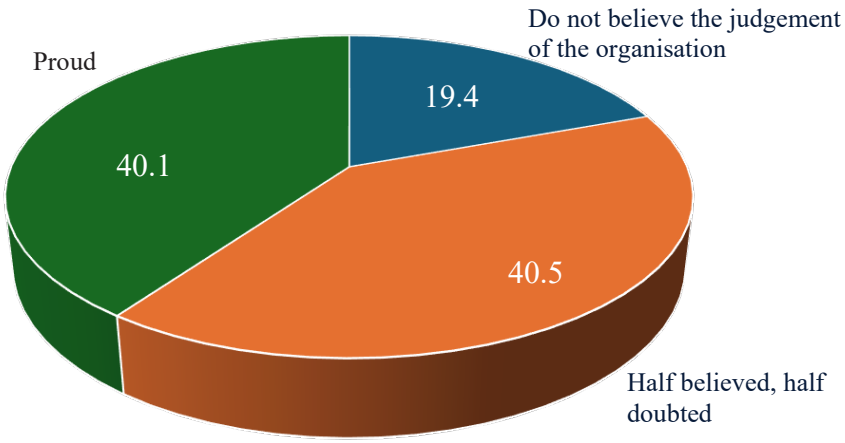

Figure 7: One's mood when hearing the news that Vietnam's education ranks among the top 10 in the world.
Source: Tran (2022: 377)

Therefore, it is not difficult to understand that many Vietnamese do not believe, or half believe, in the effectiveness of their education. In the past two decades, educational incidents in Vietnam have occurred frequently, forming the phenomenon of "educational incident chains", which unfold sequentially, persist over time, and increase in frequency, scale, and complexity. Among the most notable are the Hà Tây exam scandal of 2006, the Đồi Ngô High School cheating case in Bắc Giang in 2012, and a series of cases in 2018 (*Vietnamplus* 2018). Cheating not only exists in the final stages of graduation and entrance examinations but also permeates into daily teaching activities. Scandals such as "hiring someone else to study and participate in the tests" and "bribing teachers for good grades" have been around since the 2000s (*Công an Nhân dân* 2006). The latest survey report of *Tuổi Trẻ* newspaper in 2023 stated that, whether online or offline, there are many service groups that "study and test for service", covering various disciplines in universities and colleges across North and South Vietnam. In particular, the so-called "two-in-one" service package that provides study and examination services allows "customers" to simply "sit back and enjoy the results". In some cases, students hire service personnel to attend classes and complete examinations across multiple subjects for several consecutive weeks. In particular, one service organisation has nearly 80,000 participating members (Văn and Lý 2023a; 2023b; 2023c).

The focus on intermediate exam results, aiming to win many awards in international competitions for excellent students, has created an "achievement disease" in Vietnamese education. This disease is so serious that on 10 September 2020, the Vietnam Association of Psychology and Education Science had to organise a scientific workshop on this topic (*EVBN* 2020). Achievement-orientated "achievement disease" causes good students to have too many scandals in the exam itself (*Dân Trí* 2019; *Vnexpress* 2022). A participant in the international math competition commented that the notion that "Vietnamese people are good at math" drawn from the math competitions is "not just a prejudice, but a dangerous fantasy" (Nguyễn 2015). Mathematics professors said that many French educators were impressed when they heard that Vietnam had excelled at the regional and international Olympiads. However, when they know how to "train math students" to win prizes (these students are trained for many years with only one purpose: to compete and win prizes), they shake their heads (Nguyễn 2022). Facing a serious achievement-orientated illness in the exam, in April 2022, the *Tuổi Trẻ* newspaper had to open a forum: "What do students take the high-achievement tests for?" (Nguyễn 2022).

Achievement-oriented achievement disease and cheating in exams are the result of the community and flexibility of Vietnamese traditional culture in the context of the conflict between the traditional agricultural-rural-farmer value system and the industrial-urban value system that Vietnamese society is currently pursuing.

RESULTS OF DECODING THE PARADOX OF VIETNAM'S EDUCATION

The combination of qualitative and quantitative analyses within a typological approach—framed by cultural, educational, and philosophical perspectives—reveals that the actual effectiveness of Vietnamese education, when evaluated based on outcomes, remains low and does not meet public expectations. In other words, the paradox surrounding Vietnamese education has been decoded: it is no longer a mystery but a recognised problem.

Confucian heritage emphasises discipline, academic achievement, and respect for authority (Tran 2022; Kataoka et al. 2020). These traits explain Vietnam's high performance in the PISA tests. However, this education system fosters excessive exam pressure and contributes to a significant gap between high PISA scores and low national development indicators (e.g., GDP, HDI, GII, and university rankings).

Some may argue that Vietnam's economy has maintained a relatively high growth rate over the past few decades, and a large number of Vietnamese students have gone to study in developed countries (such as the USA, Australia, Europe, Japan, and so on), which are all manifestations of Vietnam's education success and contribution; they may also think that the inefficiency of Vietnam's development may lie in the relationship between Vietnam's education and recruitment market. In fact, it would be wrong to think this way.

Firstly, the high economic growth rate in recent decades has been due to the Đổi Mới (Renovation) reforms initiated in 1986. These reforms shifted societal attitudes toward the market economy, the full exploitation of resources (oil and gas), and attracting foreign investment without relying on education. Moreover, the economy has developed, but the culture has not kept pace, resulting in a utilitarian lifestyle that focuses on material things and pursues money. As a result, moral decline has led to serious corruption among many civil servants, including a part of senior officials. Some ministers were constantly taken to court; some deputy prime ministers and the presidents were also sacked.

Secondly, the number of Vietnamese students studying abroad is increasing. In the 2021–2022 academic year, the number of Vietnamese students studying abroad is 132,000, accounting for 37% of the number of Southeast Asian students studying abroad (Doãn 2024). In the 2022–2023 academic year, Vietnam is one of the five countries with the largest number of students studying in the USA, accounting for 2% of the country's total international students (Trọng 2023).[3] A large number of them do not return to their country after completing their studies but stay abroad to work. This is not a sign of educational success but a negative indicator of brain drains, showing that Vietnamese students are turning their backs on education.

Thirdly, in terms of the relationship between education and the job market, World Bank data and assessments (2014) clearly show the weaknesses of Vietnam's education: despite the impressive reading, writing, and numeracy skills of Vietnamese workers, many companies in Vietnam are still unable to find sufficient numbers of workers with the right skills. The most in-demand applicants include craftsmen (41%), followed by professionals (16%) and technicians (14%). The largest number of candidates who are available but lack the necessary skills (due to inadequate training) are technicians (83%), followed by professionals (80%) and craftsmen (40%) (as shown in Figure 8).

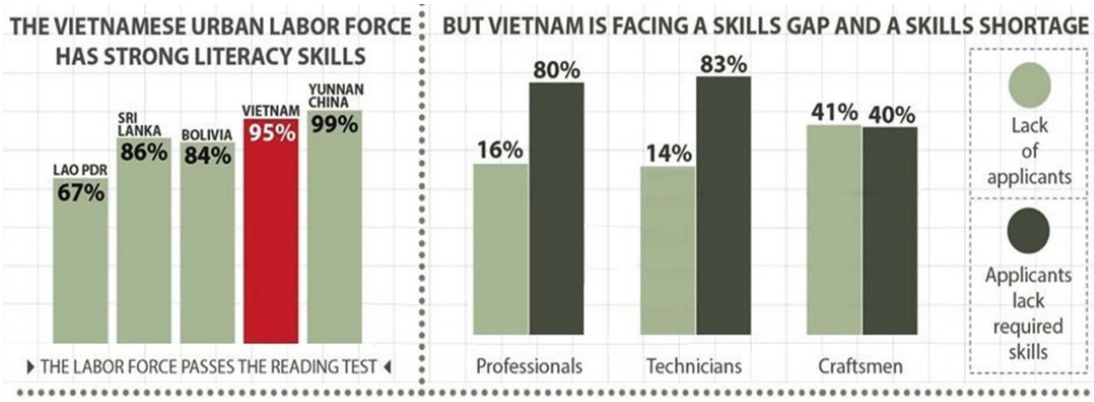

Figure 8: Comparison of literacy rate and labour skills of Vietnamese people.
Source: World Bank (2014).

The quality of Vietnamese education can be assessed by examining employers' satisfaction with university graduates. Mai et al. (2020) conducted an evaluation of 13 key competencies among graduates of Vietnam National University, Hanoi (VNU) —a leading multidisciplinary university in Vietnam—using the Southeast Asian Adjustment Project Model (*Tuning Asia* 2017). The findings revealed that many crucial competencies were rated relatively low. The competencies assessed included (1) the ability to communicate clearly and effectively (8th out of 13); (2) the ability to understand, value, and respect diversity and multiculturalism (9th); (3) the ability to demonstrate leadership attributes (10th); (4) the ability to conduct research (11th); (5) the ability to think critically, reflectively, and innovatively (12th); and (6) the ability to initiate, plan, organise, implement, and evaluate courses of action (13th). While the "ability to apply knowledge in practice" and the "ability to solve problems" are also essential, they were rated relatively low, placing 5th and 6th, respectively (Mai et al. 2020: 35).

The evaluation of 114 managers and employees from small and medium-sized enterprises operating in Vietnam on the capacity of graduates of non-public universities according to a 5-point scale conducted by Đặng et al. (2019) shows that the professional competence and skills of graduates from private universities in Vietnam were not highly evaluated (3.85 and 3.98 points, respectively), though work performance and attitude rated higher (4.04 and 4.12 points, respectively). 50.9% of the respondents said that private university graduates need additional professional skills training; 43.9% of the respondents thought they needed more foreign language training, and 42.1% thought they needed more soft skills training. It is worth noting that 34.2% of the respondents believed that private university graduates need more professional knowledge training, and 28.9% even believed that they need more information technology skills training (Đặng et al. 2019: 20–21).

The employers' assessments indicate that the overall quality of education in Vietnam does not meet the requirements of the labour market, particularly in terms of professional competence, practical skills, foreign language proficiency, critical thinking, and soft skills. Vietnamese education's focus on grades and theory has hindered the development of practical and professional skills among students, leaving them ill-prepared for the demands of the modern workforce. There are also clear differences between Vietnam's private universities and top universities. Private universities often fall short in basic requirements such as professional competence and practical skills. In contrast, top public universities tend to face limitations in more advanced competencies, including critical and creative thinking, organisational and leadership skills, effective communication, and appreciation for cultural diversity.

CONCLUSION

Based on the fact that Vietnam is one of the countries with lower GDP but higher PISA test scores, education researchers from the OECD and the World Bank believe that Vietnamese people have good academic performance despite being poor. This article builds on that review and attempts to answer why Vietnamese people are academically excellent (with high scores in PISA tests) but are still poor, and the country remains underdeveloped in many ways. By understanding the relationship between Vietnam's educational situation and the country's socio-economic development, the article points out that high PISA scores do not reflect the essence of education. Vietnam's strong performance in the PISA test goes beyond the OECD's theoretical model framework, making the organisation's educational researchers confused and unable to explain that, in fact, it is the result of a combination of many different types of cultural characteristics.

For a long time, the evaluation of educational effects has primarily been based on test scores. Many people often forget that test scores and degrees are merely intermediate indicators; the final effect of education is determined by the country's educational philosophy. A genuine educational philosophy is not simply a collection of formal statements—it is deeply rooted in a nation's cultural foundations and typological characteristics. A country's culture may have a face-centred or substance-centred tradition. If a culture has a tradition of valuing face, education will tend to value intermediate outcomes. In this case, countries with lower GDP can learn from Vietnam's experience. If a culture has a tradition of valuing substance, then education will tend to value end results. In this case, if the country wants to give students a happy childhood and provide the country with creative human resources to promote development, the learning pattern should be a Western education model. Once this model has been chosen to follow, it is also necessary to accept that results in international competitions (such as PISA) will not be high.

The paradox of Vietnamese education lies in the inverse relationship between students' high academic performance in examinations and the country's poor standing in national development indicators, a phenomenon often described as "studying hard but still remaining poor". As a result of the paradox, there is a positive correlation between high test scores and achievement obsession and cheating on tests. The victims of this educational paradox are students who are under excessive academic pressure and parents who make huge material sacrifices and lose expectations for their children.

Vietnam must redefine educational effectiveness by moving away from score-based evaluations towards measures aligned with national development. Instead of investing heavily in PISA or standardised testing, education authorities should prioritise initiatives that enhance learners' capacities. Vietnamese university graduates in particular need stronger critical and creative thinking, organisational and leadership abilities, communication skills, and respect for cultural diversity.[4]

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COMPLIANCE WITH ETHICAL STANDARDS

This study utilises data gathered during the execution of a state-level scientific research initiative on Vietnamese educational philosophy (code KHGD/16-20.DT.011), directed by the author. Data collection was executed by a questionnaire survey approach, including the voluntary involvement of 3,070 individuals. No conflicts of opinion or interest arose throughout the data gathering and processing stages.

NOTES

* Professor Trần Ngọc Thêm was formerly the Dean of the Faculty of Cultural Studies at the University of Social Sciences and Humanities, Vietnam National University, Ho Chi Minh City. He is currently the Chancellor's Advisor of Directors of Hung Vuong University, Ho Chi Minh City. He received his BA in Mathematical Linguistics in 1974 and his PhD in Theoretical and Applied Linguistics in 1987 from St. Petersburg State University (Russia). He has been researching and teaching linguistics since 1975 at Hanoi University, and cultural studies since 1992 at Viet Nam National University – Ho Chi Minh City. He is the author and co-author of 21 monographs on cultural studies and linguistics, as well as more than 100 scientific articles published in Vietnam and other countries.

1 Data released by the Ministry of Education and Training of Vietnam in 2016 show that more than 50% of primary school English teachers are unqualified, more than 63% of junior high school English teachers are unqualified, and nearly 74% of high school English teachers are unqualified (Ngọc 2016).

2 The US dollar GDP in 2023 is based on World Bank data. The 2022 HDI is based on data from the United Nations Development Programme. The 2023 GII is based on data from the World Intellectual Property Organisation. Number of top 1,000 universities in 2023, according to Times Higher Education data. Number of Nobel Prizes (excluding the Nobel Peace Prize) from 1901 to 2023 based on data from the Nobel Committee.

3 Some may believe that compulsory military service is one of the reasons that drives male students to study abroad, but this assumption is unfounded, as they are not necessarily required to study abroad: according to Vietnam's 2015 Military Service Law, students studying in domestic higher education institutions can also defer military service until the age of 27. Furthermore, if this hypothesis were correct, the number of male students studying abroad would far exceed the number of female students, but in reality, there is no documented significant gender gap in the number of Vietnamese students studying abroad.

4 This article uses data collected during the author-led national scientific project KHGD/16-20. ĐT.011; these data are stored at the Social Science Library in Vietnam. This survey had 3,070 participants, of whom 51.3% were learners (mainly aged 16 to under 25); 22.9% were parents; 25.8% were teachers and administrators (mainly aged 25 to under 50); 34.6% were from Northern Vietnam, 33.1% from Central Vietnam, and 32.3% from Southern Vietnam. The total number of questions was 33; in this article, only the results of 2 questions (Questions 2 and 31) related to the PISA test are used. All detailed information about the survey is presented in Tran (2022: 120–123). The PISA data used in this article are publicly available around the world.

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