

A Comparative Research on Educational Differentiation of the Philippines and Vietnam*

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This research explores how the Philippines and Vietnam have different systems of educational differentiation, which is closely related to educational inequality. This research adopts the comparative approach to explore educational differentiation in the Philippines and Vietnam. Based on the literature review, this research analyzes educational differentiation in three dimensions: vocation specific, special-purpose schools and standardization. The research results illustrate that Vietnamese education is highly differentiated compared to the one in the Philippines. Vietnamese education has a vocational track starting in lower secondary school, and have popular gifted high school system. In contrast, Filipino education rarely specifies vocational tracks at the secondary school level, and there is a limited number of science high schools. Both countries' curricula are standardized by education ministries. Educational differentiation among developing countries can be different. This implies that the educational inequality in developing countries needs further examination in relation to the country's educational differentiation, moving beyond the issue of access to education.

Keywords Educational differentiation, educational inequality, Philippines, Vietnam, International development cooperation

I. Introduction

As educational inequality is closely related to social inequality, it has been a major topic in sociology of education (Blau and Duncan, 1967; Breen and

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Jonsson, 2005). Many scholars have conducted research in various country contexts to know how educational inequality prevails (Breen and Jonsson, 2005). They have also pointed out factors that mediate the effect of parental socioeconomic background on individual children's academic outcome (Coleman, 1988; Lareau, 2011). In addition, it is suggested that the institutional contexts of countries crucially shape the formation of educational inequality (Buchmann and Dalton, 2002; Buchmann and Park, 2009; Kerckhoff, 2001; Maaz et al., 2008; Turner, 1960).

With growing research on the relationship between educational inequality and their institutional contexts, educational differentiation has been pointed out as a key institutional context that impacts educational inequality (Buchmann and Dalton, 2002; Buchmann and Park, 2009). Educational differentiation that allocates students in different levels at an early age is closely related to educational inequality. The range of educational differentiation is varied by country. One country with extreme educational differentiation is Germany where students are differentiated at age 10 for either the academic or the vocational track. The tracks are rigid and rarely modified. In contrast, American education is rarely differentiated until high school, and students in the vocational track may apply for the university.

These different types of educational differentiation affect the form of educational inequality (Buchmann and Dalton, 2002; Buchmann and Park, 2009; Chmielewski et al., 2013). For example, it was found that the effect of parenting differs depending on the degree of educational differentiation (Park, 2008). The impact of parent-child communication is stronger for families in low socioeconomic status (SES) in highly differentiated countries, while in less differentiated countries the impact is stronger for high SES families. In a similar vein, Buchmann and Dalton (2002) illustrated that peer and parental effect on educational expectation is higher in countries with low educational differentiation.

However, these current research trends on educational differentiation and inequality omitted developing country contexts. This is because research on education in developing countries have focused on access to primary education, influenced by international agendas and commitments (King, 2005, 2009; McGrath, 2010). For example, a representative index to demonstrate the improvement of education in developing countries is the primary school enrollment rate. In addition, the far-reaching education for all (EFA) goals launched at the World Conference on Education for All at Jomtien in 1990 focused on increasing access to education. Provision of education and access to education are the main goals of EFA, as evidenced by the frequent use of the words “expansion” and “universal access”. This approach to education in developing countries have been criticized for neglecting multiple other dimensions of education (Alexander, 2008).

Furthermore, comparative education research tends to focus on making comparisons between developing and developed countries based on different economic circumstances (Buchmann, 2011; Buchmann and Hannum, 2001; Carnoy, 2006). For example, educational policies on educational outcomes, such as the voucher program in Chile and family structure in Kenya, are related differently to academic achievement than similar educational policies in US (Buchmann, 2000; McEwan and Carnoy, 2000). Although more research is now conducted on developing countries, relatively few have been on a single developing country or have been a comparative research between developing countries (Buchmann and Hannum, 2001; Carnoy, 2006). The difference in educational contexts of developing countries requires more research.

Therefore, this research aims to explore educational differentiation in developing countries. This comparative research examines educational differentiation to reach beyond matters of accessibility to alleviate educational inequality in developing countries. The selection of countries for

the comparative study was based on three main factors: (i) the achievement of universal primary education (UPE) qualifies as educational differentiation and tends to emerge at the secondary school level (Chmielewski, 2017), and educational differentiation is clearly observed in countries that implemented UPE; (ii) the governance system of education, which contributes to shaping the forms of educational inequality (Stadelmann-Steffen, 2012); and (iii) basic statistical information regarding the country. In order to shed light on the differences in educational differentiation, the locations of the countries, their population sizes, and their GDPs were considered, and the selected information between the two countries is not significant. Taking all these into consideration, the Philippines and Vietnam were selected for research. Analyzing the educational differentiation between the Philippines and Vietnam would provide insight into educational inequalities in developing countries.

II. Theoretical Background

1. Educational differentiation

The term educational differentiation is usually used “to describe the degrees and types of tracking between schools that occurs at the secondary levels” (Buchmann and Park, 2009: 247). However, the term educational differentiation tends to be used interchangeably with educational stratification, educational tracking, or school differentiation; these terms describe the specific characteristics of educational differentiation. This research attempts to include diverse dimensions of educational differentiation rather than focusing on specific forms of educational differentiation, including all differentiation between and within schools. Therefore, this research

uses the term educational differentiation to cover various dimensions of educational differentiation. In addition, this paper does not use the term educational stratification because stratification encompasses both the process and the outcome of school differences and has the potential to be misleading, as the claim that a differentiated education system leads to differentiated educational outcomes, such as achievement, has been scarcely supported by empirical studies (Buchmann and Park, 2009).

The concept of educational differentiation was first theorized by Turner (1960). They distinguished contest mobility in the US educational system and sponsored mobility in the English educational system. Contest mobility means that competitions for high-status positions are open to all people and can be participated by anyone, regardless of their previous achievements, and can be achieved using only their own effort and motivation. In contrast, a sponsored mobility system means that a sponsor is necessary for one to become part of the elite, because elite sponsors judge and decide whether a candidate is eligible to be their fellow. In education systems, these characteristics of contest and sponsored mobility were applied in the selection of students in secondary school. In the 1960s US, the quality gap between secondary schools was narrow. In contrast, the English secondary school system was segregated by sorting at an early age. Therefore, English students needed to enter specific grammar schools to study at university, with no second chance, but American students could study at university after graduating any kind of high school. Although Turner (1960) broadly described educational differentiation, they saw early sorting as key for differentiation through a selection process.

Following Turner (1960), Kerckhoff (2001) suggested three key characteristics to describe education and social stratification. They emphasized that educational differentiation may appear in different forms in different societies. Kerckhoff (2001) offered three dimensions of educational

variation: stratification, standardization, and vocational specificity. Stratification indicates how the degree of differentiation is vertically aligned from superior to inferior. Standardization refers to nationwide homogeneity in curricula and quality of education. Vocational specificity refers to the varying degrees of vocation-specific curricula. Although Kerckhoff (2001) suggested three dimensions of differentiation, they are not independent but overlap. For example, vocational specificity is one of the crucial elements of school stratification in America (Gamoran, 1987; Lucas, 2001).

Differentiation in education manifests in various forms. Chmielewski et al. (2013) categorize educational differentiation observed in the real world: between-school streaming, within-school steaming, and course-by-course streaming. Between-school streaming is the most rigid form of differentiation where students enter different schools based on their previous achievement. Within-school streaming means that students are assigned different tracks in the same school, according to their ability. Course-by-course tracking means that students are grouped by their ability for only certain subjects.

Overall, educational differentiation is not simple and is not defined by one standard, but has various dimensions such as stratification, standardization, and vocational specificity and between-school streaming, within-school steaming, and course-by-course streaming. That is why quantifying educational differentiation is difficult. While many studies tried to focus on specific characteristics (Bodovski et al., 2017), some researchers used binary categorization for educational differentiation categories (Buchmann and Hannum, 2001; Park, 2008). In sum, efforts to quantify educational differentiation results in focusing only on certain characteristics of educational differentiation while neglecting other less quantifiable aspects.

2. Educational differentiation and inequality

Educational differentiation has been closely related to educational inequality, therefore, it is curical to look educational differentiation of states (Buchmann and Dalton, 2002; Buchmann and Park, 2009; Kerckhoff, 2001; Maaz et al., 2008; Turner, 1960). As discussed above, educational differentiation has various forms. In this part, educational differentiation's relationship with educational inequality is explored in the context of different countries.

Central European countries frequently present a highly differentiated educational system. For example, in Germany, Austria, Czech Republic, Hungary, and the Netherlands selection of students for vocational, academic, or comprehensive secondary school occurs between age 10 to 12 (Buchmann and Park, 2009). Family SES is influential in children's track placement; children with high SES parents tend to study at academic schools, while children with low family SES tend to study at technical and vocational schools (Buchmann and Park, 2009; Maaz et al., 2008). After tracking, family SES no longer impacts students' occupational expectations, but the type of school still makes a difference. The type of school students ends up attending is a crucial factor in educational inequality mechanism in countries with highly differentiated educational systems (Buchmann and Park, 2009).

The US does not have such school differentiation but has within-school tracking in high school. US education system is recognized as comprehensive because students are not selected at the secondary level. But students are subject to within-school stratification by vocational or academic track, which is a form of within-school streaming that Chmielewski et al. (2013) explored. The within-school tracking system contributes to educational inequality. Lucas's (2001) study showed how track placement has replaced years of schooling as the factor in educational inequality. Before mass education became popular, educational inequality

was inherited based on years of schooling. But today, track placement is the more salient factor contributing to educational inequality. They insisted that within-school differentiation has become more crucial than years of schooling among the secondary school-age population. This means that not only educational qualification but also quality of education is a crucial factor in educational inequality research.

In many Asian countries, educational differentiation begins at the upper secondary level. For example, Taiwan has a stratified school system with vocational and academic track in high school. More than 80% of students in the vocational track enter tertiary education. Secondary school in Taiwan is fiercely ranked and stratified by student achievement (Choi, 2015). South Korea also had a stratified secondary school system before the mid-1970s when an equalization policy was implemented. Today, academic high school students can study at prestigious universities, while vocational school students rarely receive a second chance to study at these prestigious universities, although they may enter a university (Seth, 2002).

Some scholars conducted cross-national comparative research on differentiation and educational inequality. Bodovski et al. (2017) demonstrate that the national mean of math achievement is more likely to be higher in countries with a highly standardized educational system that determines the handling of national curricula, textbooks and evaluations, compared to countries with a less standardized educational system. In addition, they discovered differentiation and standardization's moderating effect on math achievement. A standardized education system can remedy the negative effect of differentiation. This implies that educational stratification and differentiation are related to academic achievement and that educational differentiation is not the sole factor in educational achievement.

Furthermore, Park's (2008) study showed how the effect of parenting differs depending on the degree of national standardization of the

educational system, through national curricula, nationally decided textbooks and national exams. Seven countries with highly standardized education systems and seven countries without such a system were selected through research and consultation. In countries with high educational standardization, the impact of parent–child communication on academic achievement is greater for students with low family SES than for students with high family SES. However, in countries with non-standardized educational systems, the impact of parent–child communication was greater for students with high family SES, which means that communication with parents is more beneficial for students from families with high SES. Although this was a study on the standardization of education systems, it concluded that the effect of parent–child communication is maximized for students with low family SES in highly standardized educational systems.

In sum, there are diverse forms of educational differentiation. A country's context should be taken into consideration to understand the educational differentiation in that country. Furthermore, educational differentiation is related to educational inequality. Especially in countries with highly differentiated school systems, schools mediate the effect of family SES, meaning that schools are channels for intergenerational inequality. Based on these findings, this research focuses on the forms of educational differentiation in the Philippines and Vietnam to understand educational inequalities in these two countries.

3. Context in the Philippines and Vietnam

This research adopts a comparative approach to explain the educational differentiation systems in two selected developing countries: the Philippines and Vietnam. The selection of countries for the comparative study was based on three main factors: achievement of universal primary education,

the governance system of education and basic statistical information regarding the country.

In terms of educational accessibility, the Philippines and Vietnam have achieved UPE which is an astonishing result compared to other developing countries. In 2020, the primary education completion rate was 103% in the Philippines and 110% in Vietnam, and the lower secondary completion rate was high in both countries: 85.3% in the Philippines and 97.7% in Vietnam (World Bank, 2022a). In achieving UPE, educational differentiation is crucial for educational inequality with accessibility problems, as educational differentiation tends to emerge at the secondary school level.

In addition, the Philippines and Vietnam have relatively centralized education systems (London, 2010; Saguin and Ramesh, 2020). Both countries have strong education ministries; the Philippine education system is mainly run by the Department of Education, and Vietnamese education system is run by the Ministry of Education and Training. Although these two countries have tried to decentralize their education systems, little progress has been made.

The Philippines and Vietnam are two Southeast Asian countries that share similar cultures, statistics, and educational systems, allowing for an insightful comparison of their similarities and differences. The Philippines and Vietnam are both located in Southeast Asia, sharing Southeast Asian characteristics, such as colonial experience and cultural characteristics. For example, according to Hofstede's model of national cultures (Hofstede Insights, 2021), power distance-index showing unequal distribution of power was high for both countries (Philippines: 94, Vietnam: 70, where 1 is the lowest and 100 is the highest). Individualism was also low in both countries (Philippines: 32, Vietnam: 20), which are characteristics commonly found in Asian countries.

Furthermore, both countries are on a similar economic level and have similar population size. They are both lower middle-income countries

Table 1 Basic Data on Southeast Asian Countries

	Philippines	Vietnam	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Singapore	Thailand
Population size	111,046,910	98,168,829	441,532	16,946,446	276,361,788	7,379,358	32,776,195	54,806,014	5,453,566	71,601,103
GDP per capita (US\$)	3,548.8	3,694.0	31,722.7	1,591.0	4,291.8	2,551.3	11,371.1	1,187.2	72,794.0	7,066.2
Poverty gap at \$2.15 a day	0.5	0.2	-	-	0.5	1.2	0.0	0.3	-	-
Gini index	42.3	35.7	-	-	37.9	38.8	41.1	30.7	-	35.0
Primary completion rate*	103	110	105	92	102	89	105	95	101	95
Lower secondary completion rate*	85.3	97.7	111	58.2	90.0	62.0	84.6	64.8	100.4	126.2
Upper secondary attainment rate**	30.5	31.9	63.0	9.3	38.1	62.6	62.6	22.8	74.5	35.3

Source: World Bank, 2022b. All data is the most recent between 2017 and 2022. * is % of relevant age group. ** is % of population 25+.

according to the World Bank (2022b) economic level classification. In 2021, the Filipino GDP was \$3,549 per capita while the GDP of Vietnam was \$3,694 per capita. The GDP of the Philippines and Vietnam are higher than that of Laos, Cambodia, and Myanmar but lower than the GDP of Thailand, Indonesia, Malaysia, Singapore, and Brunei (World Bank, 2022a). The populations of the two countries are also very similar. Vietnam has a population of 98 million while the Philippines has a population of 111 million (World Bank, 2022a). Therefore, comparing the two countries can provide insight on educational differentiation systems in developing countries.

There are, although scarce, previous research on education inequality and achievement in the Philippines and Vietnam. First, in the Philippines, the gap in years of schooling between rich and poor groups decreased between 1960 and 2000 through mass education (Mesa, 2007). However, this does not necessarily mean educational inequality decreased. There is still a huge discrepancy in years of schooling between urban and rural areas (Mesa, 2007; Zamora and Dorado, 2015). In addition, there is a considerable variation in school quality in the Philippines. Different amount of school materials and resources between public and private, rural and city, and high and low SES schools affect student learning outcome, although this between-school variance is relatively smaller than in other developing countries (Trinidad, 2020). Private school is a contributing factor to raising educational inequality, but the increase in the number of public schools is offsetting the effect of private schools (Jimenez and Sawada, 2001).

Vietnam has high academic achievement compared to other Southeast Asian countries. Many researchers have attempted to explain this extraordinary academic result with the culture of Vietnam (Asadullah et al., 2020). Confucian culture that emphasizes education and perseverance for success is widely explored to explain high academic achievement. But the side effect of the Confucian culture also shapes school atmosphere and

leadership; school decision is mostly made by the principal, and teachers are constrained in terms of school leadership and management (Truong et al., 2017).

While Vietnam is noted as a high achieving county, educational inequality is prevalent. Rural regions are still under the national average on education achievement outcome. The main cause of the gap between urban and rural areas is the difference in education quality provided by teachers. Teachers avoid working in a rural area so these regions lack qualified teachers. Also, private schools that make up less than 5% of total schools are attracting students from high SES, and are concentrated in urban areas (Glewwe and Patrinos, 1999).

Upper secondary education is a crucial factor in educational inequities in Vietnam. It is argued that upper secondary school is accessible to any student with high scores in previous levels, but minority groups have difficulty accessing upper secondary schools, mediated through low test scores and family background, indicating that upper secondary schools still have high educational inequality (Rolleston and Iyer, 2019). In sum, previous research illustrates that both countries are experiencing educational inequalities, but they are limited in demonstrating the existing educational gap between student groups.

III. Methods

This research adopts a comparative approach to explain the educational differentiation systems in two selected developing countries: the Philippines and Vietnam. As mentioned in the context of the Philippines and Vietnam, these two countries have achieved UPE, have centralized educational governance, and share many other characteristics.

For data collection, we limited ourselves to data published after 2000 to look current education system. The Philippines reformed its education system in 2013; the main change made was a two-year extension of secondary education from four to six years. The data collected includes this education reform, as well as seven reports published by government and international agencies and six journal articles. In addition, the websites of the World Bank, the governments of the Philippines and Vietnam and other outlets were searched for supplementary material.

Framework analysis was conducted on the collected data. Framework analysis is a deductive method based on frameworks that are themselves based on theories or previous research. The researcher may exclude his bias and choose to follow perspectives or frameworks established before the analysis. The framework used for analysis is shown in Figure 1. First, accessibility to education in the Philippines and Vietnam was analyzed. Although exploring accessibility is not the focus of this research, accessibility of education is still the most emphasized agenda in education in developing country contexts. In addition, the years of education and educational differentiation are closely connected in terms of educational inequalities (Lucas, 2001). Therefore, compulsory years of education and completion rates of each country can provide clues to understanding educational inequality.

Next, educational differentiation in each country is analyzed based on the dimensions of educational differentiation suggested previous scholars. Kerckhoff (2001) suggested three dimensions to describe educational differentiation: stratification, vocational specificity and standardization. As our research aims for a deeper understanding of educational differentiation through literature analysis, Kerckhoff (2001)'s framework of educational differentiation may show the comprehensive educational differentiation system in each country. Kerckhoff (2001) did not select singular dimension of

	Philippines	Vietnam
Accessibility to education	<ul style="list-style-type: none"> • Compulsory years of education • Education completion rates 	
Educational differentiation	<ul style="list-style-type: none"> • Vocation specific • Special-purpose school • Standardization 	

Figure 1 Research Framework

educational differentiation but suggested three crucial factors in educational differentiation. However, in order to differentiate vocational characteristics, we changed the stratification, which describes “lower” and “higher” curricula, to special-purpose schools. Finally, educational differentiation was analyzed according to three themes: special-purpose schools, vocational specificity, and standardization.

The framework analysis was conducted in four steps: familiarization with the data, identification of the framework, indexing and charting, and mapping and interpretation (Lacey and Luff, 2007).

IV. Results

1. Accessibility to education

In terms of accessibility to education, the years of compulsory education are important to guarantee accessibility. Analysis shows that the duration of compulsory education is the main difference of between the Philippines

and Vietnam. The Filipino system has a 6-4-2-4 system-6 years of elementary school, 4 years of junior high school, 2 years of senior high school, and 4 years of university-and compulsory education is 13 years, including 1 year of preschool. The current version of K-12 compulsory education was enacted in 2013 (Deped, 2012a). Vietnam has 9 years of compulsory education which consists of primary (5 years) and lower secondary school (4). The entire system follows the 5-4-3-4 system adding 3 years of upper secondary school, and 4 years of university (UNESCO-IBE, 2011). Although there are concerns with shorter period of compulsory education compared to the global standard of 12 years, the Vietnamese government maintains the nine-year compulsory system (Rolleston and Iyer, 2019). Therefore, entering the limited number of upper secondary school is very challenging for young Vietnamese students who must compete in the two-to-one acceptance rate. During the 2008-2009 school year, there were 5.52 million students in lower secondary but only 2.5 million in upper secondary. Even after taking into account that lower secondary has one more grade than upper secondary, there is not enough space in upper secondary for all graduates of lower secondary (Le and Tran, 2013). Students who fail to enter an upper secondary school enter a vocational upper secondary school that provides vocation-specific subjects with general education. However, vocational schools also do not have enough capacity to accept all students who fail the academic track. Therefore, students who are unable to enter either a general upper secondary school or a vocational upper secondary school cannot continue with their education (Le and Tran, 2013).

When it comes to national educational enrollment, both countries have accomplished UPE. The Philippines accomplished UPE in the 1970s, which was early compared to other Southeast Asian countries. Vietnam had over 80% primary education completion rate in 1979 (World Bank, 2022a). In 2020, primary education completion rate was 103% in the Philippines and 110%

in Vietnam. Lower secondary completion rate is high in both countries: 85.3% in the Philippines and 97.7% in Vietnam (World Bank, 2022a).

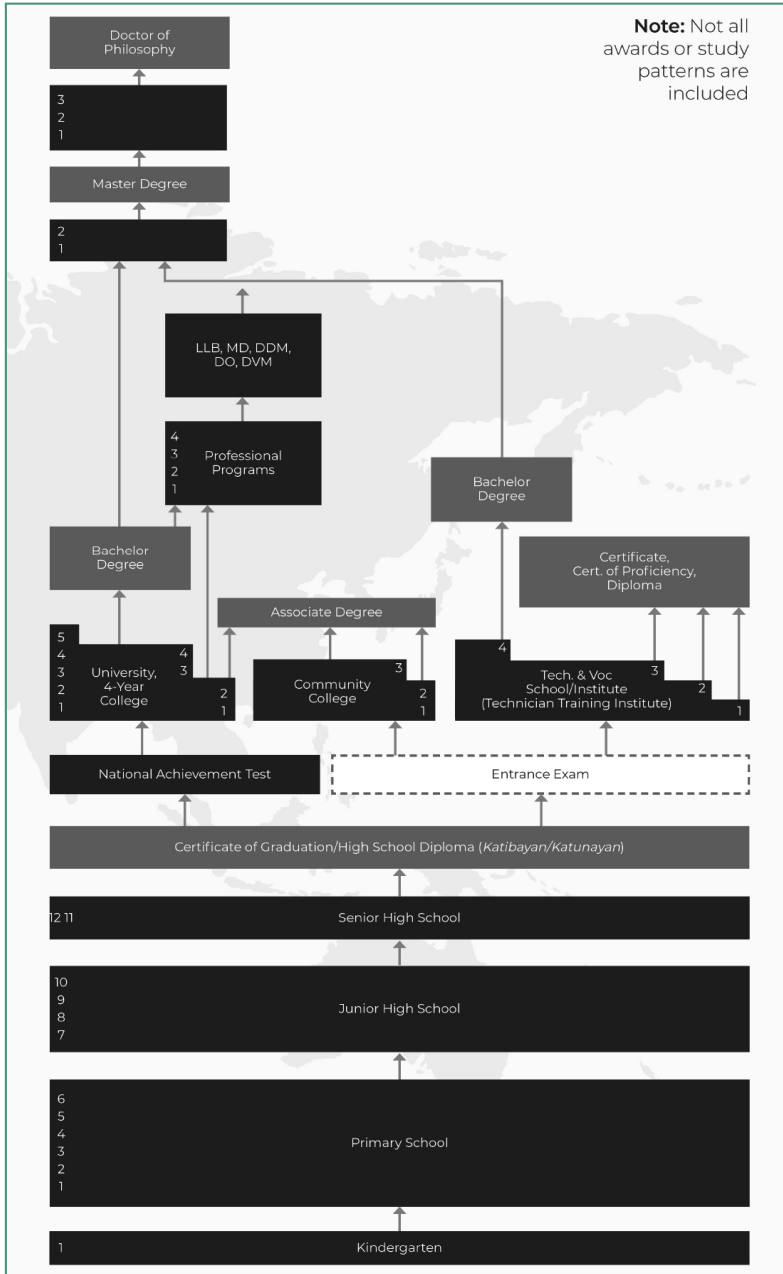
2. Educational differentiation

1) Vocation specific

Looking at the vocational education system, the starting age and the degree of differentiation for vocational education differ in the two countries. The Philippines has an overall comprehensive education system from elementary to senior high, without school differentiation, as can be seen in Figure 2. There are vocational and academic tracks in within-school streaming at the senior high level (UNESCO-UNEVOC, 2019).

Although there is within-school tracking at the senior high level, this differentiation is very loose because the core modules are compulsory for all. In the last year of senior high school, students are allocated to a specialized track: academic, technical-vocational livelihood, sports, or arts (GOVPH, 2022a, 2022b). The academic track comprises of 4 sub-tracks: accountancy, business, and management (ABM); humanities and social sciences; science, technology, engineering, and mathematics; and general academic. The technical-vocational livelihood track consists of home economics, information and communication technology, agri-fishery arts, and industrial arts. However, these tracks require taking specialized subjects as well as general education. All students in senior high school, including those in the vocational track, take core courses, which are languages, literature, communication, mathematics, and philosophy (UNESCO-UNEVOC, 2019).

More importantly, track placement in senior high school does not hinder or limit the opportunity to apply to college or other education institutions. Senior high school graduates taking the vocational, sports, or arts track can



Source: WENR, 2017

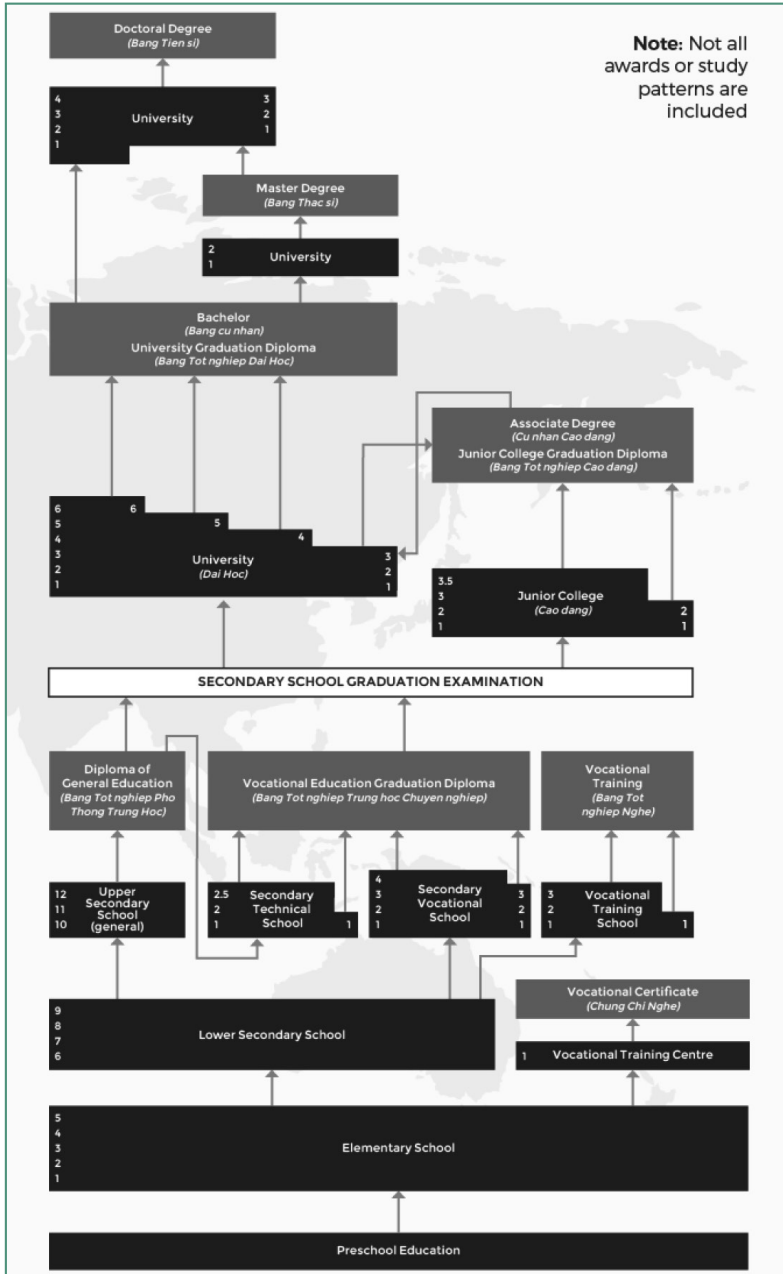
Figure 2 Vocational Education System in the Philippines

also apply for an academic department when applying to a university. The Department of Education (DepEd) clearly states that

...while senior high school [(SHS)] offers tracks and four strands within the Academic Track, SHS graduates—regardless of tracks—can gain admission to Baccalaureate degree programs. Tracking students early and making them progress within the same track is not acceptable in Philippine society, college education for the social mobility of their children being a universal aspiration of Filipino parents (GOVPH, 2022a).

Compared to Filipino vocational education, Vietnamese vocational education begins earlier and is firmly differentiated. Students who have completed primary school may enter a vocational training center (Figure 3). As lower secondary education is compulsory, the number of people directly enrolling in vocational training at the lower secondary level is low. Vocational training at the lower secondary level is for people who drop out of lower secondary school or after lower secondary school (UNESCO-UNEVOC, 2018). Graduates of lower secondary school can enroll into professional vocational education courses which takes three to four years. Differentiation in vocational education occurs early, at the end of lower secondary level at the age of 14.

Another difference with vocational education in Vietnam compared to the Philippines is that secondary vocational school graduates cannot apply to university (UNESCO-UNEVOC, 2018). Therefore, vocational education is not preferred by the Vietnamese people. Students with low SES or little educational support tend to take the vocational track (Dang and Glewwe, 2017; Freire and Giang, 2012). The quality of vocational education is perceived to be poor, having low academic standards, poor school infrastructure, and low performance output in terms of employment (Dang and Glewwe, 2017).



Source: WENR, 2017

Figure 3 Vocational Education System in Vietnam

2) Special-purpose school

Regarding special-purpose schools, there are huge discrepancies between the Philippines and Vietnam in terms of school differentiation at the upper secondary level. The Philippines emphasizes equality over excellence in its educational policies. Therefore, the only form of specialized high school is science high school specializing in science and technology under the government's Department of Science and Technology. The main campus is in Quezon, on the outskirts of the capital city of Manila, and there are 15 regional campuses. Private school is one form of differentiation by school type, as 44% of all secondary schools are private in the Philippines (DepEd, 2018; PSHS, 2022). However, enrolling in private schools depends more on family SES than previous academic achievement (Yamauchi, 2005), and students are relatively free to transfer between private and public schools depending on their personal situation.

In contrast, Vietnam has firm differentiation at upper high school level. Vietnamese education is described as one of the most competitive educational systems, especially for admission to university (UNESCO-IBE, 2007). However, universities themselves are not involved in the competitiveness of Vietnam's education, as a student's possibility of university admission is already determined at the upper secondary level (Dang, 2008; UNESCO-IBE, 2007). Therefore, students work hard to excel in the upper secondary school entrance exam not simply to enter an upper secondary school but to be admitted to a prestigious one (Le and Tran, 2013).

Upper secondary education for gifted students is a prestigious system administrated by Vietnamese government policy. Article 10 of the 2006 Education Law specifies about gifted students that "the students and community shall help the poor have access to education, enabling gifted people to develop their talents" (UNESCO-IBE, 2011). Upper secondary schools for gifted students are selected in each of the 64 provinces of Vietnam,

and large cities can have more than one such upper secondary school. The number of students in upper secondary school for gifted students is limited to 10% of the population of the province or city (Nguyen, 2012). Schooling for gifted students is controversial, as it causes fierce competitiveness and threatens educational equality by having 2.5 to 2.7 times more funding than other public schools (Huyen, 2020). The ranking of Vietnamese upper secondary schools is also highly sophisticatedly. The Ministry of Education and Training (MOET) officially announces upper secondary school rankings, followed by university entrance exam marks (Tien, 2021; VAS, 2010).

3) Standardization

Educational standardization means nationwide homogeneity in curricula and quality of education. Both analyzed countries demonstrate relatively standardized educational systems. Filipino public and private curriculum is developed by the DepEd (DepEd, 2012a). Current Filipino curriculum called K-12 or Enhanced Basic Education Act of 2013 includes not only the curriculum from kindergarten to senior high school, but also extends compulsory years of schooling. The DepEd provides learning areas across grades 1 to 12: Languages (Mother Tongue, Filipino, and English), Arts and Humanities (Music, Arts, Physical Education and Health, Society, and Values Education, Science, Mathematics, and Technology and Livelihood Education) (DepEd, 2012a). Also, detailed lesson plan, pedagogy, and achievement assessment for each subject is included on guidelines for K-12 (DepEd, 2012b). This illustrates that the Filipino school curriculum is highly organized and standardized.

In a similar vein, the Vietnamese education curriculum is mostly handled by MOET. The MOET had historically controlled the national curriculum. Subjects that should be taught in class is decided by the MOET: Vietnamese, Math, Science, Civics, Foreign Languages, Physical Education, Technology, Art, Music, and optional subjects. Also, detailed contents and

textbook, and weekly period of each grade and subject is organized by the MOET (UNESCO-IBE, 2011). Although the MOET tried to decentralize education through the most recent education reform in 2013 based on Resolution 29, this was only applicable for administration and budget; the system is still very centralized under the MOET (UNESCO-IBE, 2011).

Both countries also implemented national standardized test which is the one of the crucial determinants to have national standardized curricula (Park, 2008). The Philippines conducts the National Achievement Test (NAT) for Grade 3, 6, 10, and 12 on major 4 or 5 subjects depending on grade (Namoco et al., 2022). Vietnam also conducts standardized tests on last grade of primary school, lower and upper secondary school (Nguyen, 2012).

Although the Philippines and Vietnam conduct national standardized tests, the purpose of the tests is different. In the Philippines, the test aims to collect achievement data for student learning outcome then compare the learning outcome among provinces to provide educational support rather than select and constraint an individual student on further education. Furthermore, NAT on Grade 12 is not compulsory for entrance in university, which means students without NAT can study at a university (Namoco et al., 2022). However, the national achievement tests in Vietnam are conducted to sort the students for further education (Nguyen, 2012). For example, the results of graduation test of lower secondary school are used for entrance into gifted upper secondary school. Also, the result of upper secondary school graduation test is used for entrance into higher education. Therefore, it can be concluded that Vietnam's national achievement tests are high stakes.

3. Summary of Findings

This research explored the educational differentiation of the Philippines

Table 2 Summary of Research Results

	Philippines	Vietnam
Accessibility to education	•13 years of compulsory education	•9 years of compulsory education
Educational differentiation	•Vocational courses provided in Grade 12	•Vocational training provided in Grade 6 •Vocational school provided in Grade 10
	•Only a limited number of science high schools exist (16 schools in the whole country)	•Upper secondary schools for gifted students system is predominant and competition for entering gifted high schools is fierce (10% of the whole school)
	•Standardized curricula •National exam is conducted to collect data	•Standardized curricula •National exam is conducted for the purpose of differentiation

and Vietnam. The results demonstrated that the two countries have a huge discrepancy in educational differentiation. Major findings are summarized as follows (Table 2). First, Vietnam has a shorter period of compulsory education than the Philippines; Vietnam has 9 years of compulsory education, while the Philippines has 13 years. Second, Vietnam has a highly differentiated education system compared to the Philippines in terms of vocational tracks, special-purpose schools and standardization. Vietnam's vocational track begins at lower secondary school, although upper secondary school is major form of vocational tracks. In the Philippines, a vocational course is implemented only for the last year of senior high school, which does not much impact university entrance. Regarding special-purpose schools, Vietnamese upper secondary schools are highly differentiated with a system of upper secondary schools for gifted students. Students who get higher grades in the lower secondary graduation exam can study in the upper secondary school for gifted students. In contrasts, Filipino secondary schools except the science high schools are relatively homogenous in achievement, and the number of science high school is

only 15. Lastly, both the Philippines and Vietnam have high standardization in education curricula.

V. Discussion and Conclusion

The huge international effort for developing countries' education has focused much on increasing accessibility to basic education—such as the EFA agenda—rather than educational inequality issues within the state (King, 2005, 2009; McGrath, 2010). A few researchers have addressed educational inequalities issues in developing countries, demonstrating the educational gap between rural and urban areas (Glewwe and Patrinos, 1999; Trinidad, 2020; Zamora and Dorado, 2015) and between ethnic groups (Rolleston and Iyer, 2019). However, these researches still omit the institutional contexts of the state, such as educational differentiation. Therefore, this research explored how various forms of educational differentiation exist within developing countries.

The research findings revealed several points. First, findings suggest that educational differentiation in developing countries needs to be studied in relation to educational inequality. Previous research has demonstrated that educational differentiation has contributed to different mechanisms for educational inequality. Parental expectation plays a significant role in transmitting educational inequality in countries with undifferentiated systems (Buchmann and Dalton, 2002). Also, the types of secondary schools in highly differentiated systems play influential roles in educational inequality (Buchmann and Park, 2009). Relating the results of this study to these previous research shows possibilities that different mechanisms of educational inequality exist between Vietnam and the Philippines; the gifted-school school system could play a crucial role in educational inequality in

Vietnam, while in the Philippines, there are factors other than educational differentiation. Therefore, educational differentiation should be considered for further research on educational inequality in developing countries.

Second, the research framework of educational differentiation should be discussed. This research analyzed the educational differentiation of the Philippines and Vietnam based on the framework developed by Kerckhoff (2001). Although this framework has captured the characteristics of educational differentiation, allowing analysis of the broad concept of educational differentiation, it cannot account for the distinctive characteristics of each developing country's educational differentiation. Kerckhoff's framework was developed two decades ago based on the Western education system. Therefore, developing a new framework of educational differentiation reflecting today's developing countries' contexts is urgent. For example, the global wave of education privatization has affected developing countries, shaping the character of their educational differentiation (Rizvi, 2016). A number of low-fee private schools have emerged in developing countries with the privatization of education (Grujters and Behrman, 2020). International organizations have also introduced educational decentralization with their aid programming in developing countries (Dyer and Rose, 2005). A framework for educational differentiation reflecting these current educational circumstances needs to be developed.

Third, it is important to ask how two countries can have different systems of educational differentiation. An answer might be found in the history of the development of education in Vietnam and the Philippines. Historically, access to education was long restricted in the Philippines during the Spanish colonial era (1521-1898). Therefore, although modern schools began early in the Philippines compared to other Asian countries, they operated only for the ruling parties and their allies. At the end of Spanish colonial period, Three-year free normal education was allowed for the public with

the Education Decree of 1863. The current education system based on Education Act of 1901 was much influenced by the US (Musa and Ziatdinov, 2012). As education was suppressed during the Spanish colonial rule, the Philippines implemented the Education Act of 1901 to establishing an efficient school system and focus on expanding and providing educational opportunities (Magallanes, 2018). The historical background shows that mass education has been implemented quite recently in the Philippines.

Conversely, the Vietnamese education system has a long history with the influence of Confucianism. For example, Le dynasty (1428-1788) emphasized human resource and promoted educational participation for the affluent. Mass education persisted even during the French colonial era although the curriculum was modified by the French (Truong et al., 2017; Nguyen, 2012). The Vietnamese also value education based on Confucianism influence from China (Truong et al., 2017). Their enthusiasm for education is apparent in the gifted education system. MOET and Hanoi University organized a special program for mathematics-gifted learners in 1964 (Nguyen, 2012). In the 1980s, the special class was expanded to other subjects on Literature, Foreign Languages, Physics, Chemistry, Biology, Informatics, History, and Geography as the schools for gifted students were first established (Nguyen, 2012). Although the schools for gifted has been criticized for taking more than twice the budget of other public schools, the gifted school system is maintained in Vietnam (Huyen, 2020). Vietnamese education has instead promoted educational excellence, making a differentiated education system. The different historical backgrounds may have led to distinct forms of educational differentiation.

This research also provides implications for the education development cooperation of South Korea. The Philippines and Vietnam are among the 10 New Southern Policy countries where close cooperation has developed since 2017. Much of the education assistance budget still emphasize

the need to raise accessibility to education rather than within-country inequality. Associated policies focus on infrastructure development rather than considering educational inequalities and pro-poor policies (Chung, 2013). This research showed that educational differentiation varies by country context even among nations on a similar economic level. The issue of educational inequality in developing countries must be considered in future education development cooperation.

Research findings should be carefully interpreted. The degree of educational differentiation is not directly related to economic inequality; economic inequality does not always parallel the educational differentiation system (Dupriez & Dumay, 2006). Both the Philippines and Vietnam have issues with economic inequalities. The Philippines' Gini Coefficient (42.3) is high compared to Vietnam's (35.7) (World Bank, 2022a). Filipino economic inequalities persisted since the colonial era and continued after independence through major failed policies on wealth redistribution (Ventura, 2016). Vietnamese society has also suffered from increased inequality since the Doi Moi Revolution, which kept the Communist political system but adopted economic capitalism by opening up its markets (Sarma et al., 2017). Therefore, the Philippines' comparatively less differentiated educational system should not be interpreted as a marker of economic equality.

This research also has limitations. As this research tried to examine the broad concept of educational differentiation and compare two countries' systems, this research does not explore the details of each country's educational system. Also, this research has been conducted based on the documentation. Therefore, examination of the detail practice of educational differentiation in these countries is left for future research.

Despite the limitations, this research significantly demonstrates the variations in educational differentiation among developing countries. Buchmann and Hannum (2001) already asserted the need for comparative

research among developing countries with huge variations among them. By illustrating how educational differentiation is distinguished between the Philippines and Vietnam, this study calls for more research on educational inequality in developing countries, considering issues beyond education access.

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