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## **Picturing the Models of Initial Teacher Education in the World and in Vietnam and the Application of a “Combined” Model for a Specific Context**

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### **Abstract**

The article presents different teacher education models around the world with a focus on a few countries, namely Singapore, Thailand, New Zealand, Finland, and the US as well as models in Vietnam. It is evident that countries apply different models instead of one to initial teacher education and Vietnam is no exception. Besides the two popular teacher education models, the concurrent and the consecutive ones, under specific circumstances, the “combined” model, called A+B, has been implemented in some Vietnamese universities to meet the needs of teachers and join the teaching profession of society and individuals. The study provides more information on the possibility of implementing the A+B model for an independent university rather than a member university within a system of universities, where this model has been applied for quite a long time, through the design of the training program for some programs in the same sectors at the Ho Chi Minh City University of Education. This idea is hoped to be a reference for teacher education programs in diversifying themselves, especially for those in Vietnam as most of them are organized in independent multidisciplinary institutions which provide both teacher education programs and non-teacher education ones like the Ho Chi Minh City University of Education.

**Keywords:** initial teacher education, teacher education models, the concurrent model, the consecutive model, the A+B model.

### **1. Introduction**

For education in any era and country, the teacher always plays an important role, a key factor contributing to the success of education and the development of the country. McKinsey (2007) even argues that the quality of a country’s education cannot surpass the quality of its teachers. Therefore, teacher education institutions in the world must constantly improve the methods and

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contents of their teacher education programs to provide society with a source of quality human resources in the teaching profession.

To contribute to the improvement in teacher education, many research studies on this field in general and teacher education models, in particular, have been done and have become a matter of great interest amongst scholars worldwide. Generally, the concurrent and consecutive models of teacher education co-exist as two main directions for designing teacher education activities in institutions. The advantages and limitations of these two models are also considered topics that have been discussed extensively in the world for a long time (Ingvarson et al., 2013; Flores, 2016; Zhang et al., 2018).

In Vietnam, the history of teacher education has gone through many stages of development, and each stage has corresponding education models. This research hopes to add more understandings and methods for reviewing how teacher education in Vietnam has been implemented through the analysis of teacher education models in the world and some institutions in Vietnam, thereby providing information for proposing innovations for Vietnam’s teacher education. Therefore, this study first goes through studies on teacher education models in various countries and then investigates teacher education models that have existed in Vietnam. From there, the study suggests implementing a teacher education model for a multidisciplinary higher education institution that provides both teacher education programs and non-teacher education ones through the design of a more connected program. Through this approach, this research is also hoped to be a reference for teacher education programs in diversifying themselves, especially those in Vietnam, most of which are organized in this type of higher education institution.

There are two teacher education models implemented with some adjustments by institutions of higher learning proving teacher education programs in the world: the concurrent and consecutive model. Tables 1 and 2 illustrate various definitions of what concurrent and consecutive means in initial teacher education (ITE).

**Table 1.** Concurrent model of teacher education

No	Authors	Definition
1	Ingvarson et al. (2013)	“Concurrent program-types grant future teachers a single credential for studies in subject-matter content, pedagogy, and other courses in education; this all happens at the same time, concurrently during the first period of post-secondary education” (P. 24).
2	Flores (2016)	“The concurrent model, in which the general and professional components are delivered concomitantly” (P. 196).
3	Zuzovsky and Donitsa-Schmidt (2017)	“The concurrent model is a model in which the disciplinary content knowledge is taught alongside the educational and pedagogical studies throughout a long preservice preparation period, usually lasting between three and five years. As its name indicates, the model utilises an integrated approach that combines disciplinary contents, educational theory, research and practice, which are taught concurrently. The spread of the practicum over a long period of time in this model is meant to improve the integration of the different components in the program” (P. 2).
4	Zhang et al. (2018)	For the concurrent model, student teachers learn academic and professional knowledge simultaneously. The concurrent model can be more constraining because it requires students to decide whether they want to pursue a career in teaching at the very outset of their universities studies (i.e., in their first year of study) (P. 479).
5	Dejene et al. (2018)	Student teachers following the concurrent model will acquire both subject knowledge and pedagogical knowledge concurrently (P. 7).

**Table 2.** Consecutive model of teacher education

No	Authors	Definition
1	Ingvarson et al. (2013)	“A consecutive teacher education program-type requires completion of two phases of post-secondary education: first, a university degree with specialization in the subject-matter to be taught, followed by a separate program focused primarily on pedagogy and practicum” (P. 24).
2	Flores (2016)	“The consecutive model, in which the professional component follows the general component” (P. 196).
3	Zuzovsky and Donitsa-Schmidt (2017)	The consecutive model means that student teacher candidates will learn the professional knowledge after they have awarded a degree relevant to subjects they will teach later in schools. For the consecutive model, candidates will begin their professional courses after they have properly studied the subject matter. As a result, the study is less focused on the disciplinary component and is primarily devoted to studies in education and pedagogy, with a shorter period of practical experience. This model tends to attract older and more experienced individuals with a diverse range of life experiences, including motherhood, who have made a relatively late and educated decision to pursue a teaching career (P. 3).
4	Zhang et al. (2018)	“The consecutive model means that students do not need to decide upon teaching as their chosen profession until they have completed a degree in their academic content areas.” (P. 479).
5	Dejene et al., (2018)	The consecutive model of teacher education requires recipients to have a bachelor’s degree in a subject discipline before enrolling in a postgraduate diploma in teaching. That is, a teacher first obtains a qualification, and then continues for a period of time to obtain additional teaching qualifications/certifications as a qualified teacher (P. 8).

As the name of the models, concurrent and consecutive are unique in their approaches to teacher education. The former focuses on the integration of academic knowledge/disciplinary content knowledge alongside professional knowledge/the educational and pedagogical studies during preservice teacher preparation programs. The former denotes two phases in teacher education: a bachelor’s degree in a subject discipline and a teaching certificate or postgraduate diploma/certifications in teaching. The distinction between the concurrent and consecutive models also denotes the time a student decides to become a teacher. The concurrent means students choose a teaching profession for their undergraduate study, while the consecutive model allows others to join the teaching profession after being awarded another degree.

Ingvarson et al. (2013) discussed the duration of training student teachers based on the two models. For them, there are several reasons policymakers care about the length of ITE. Cost is among the reasons (Schwille, Dembélé, 2007). Shorter programs may be less expensive, but they may also be less effective (meaning more time and money for continuous professional development). Cost includes institutional costs and lost income and other costs students have to bear during their studies. The time of each teacher education program varies depending on countries and even is different within a country (Lewin, Stuart, 2003; OECD, 2005). To become primary school teachers, students study for around four years. ITE programs for secondary teachers are also varied. For the concurrent model, the program length is approximately four years. The consecutive model's first phase is typically four years long, followed by a one-year second phase.

Several factors are attributed to this variation, including financial matters, demand, and supply of teachers, applicants’ educational backgrounds, and the content knowledge of candidates (Ingvarson et al., 2013). It has been observed that countries requiring universal elementary schooling, usually developing countries, tend to develop a short program (less than a year) to fulfill the needs of the policy. Another trend in teacher education is that in developed and industrialized

countries, the programs have a short duration of university-based training followed by a longer time for an internship.

In general, the length of ITE programs creates an unavoidable quandary, as Schwille and Dembélé (2007) stated: "... the longer, the more expensive, and... the shorter, the more difficult to do anything worthwhile" (p. 69). Because the consecutive model tends to last longer than the concurrent model and, therefore, is more expensive, it could be interpreted that the cost for the longer program can be compensated with added value relative to the cost.

For the two models, Zuzovsky and Donitsa-Schmidt (2017) explicitly discussed the advantages and disadvantages of each one. The benefits are considered the drawbacks of the other, and vice versa. Two significant benefits of the concurrent model are (a) a more integrated learning experience and (b) more opportunities to socialize into the teaching profession. Nevertheless, as discussed in the previous section, the model requires students to decide their choice in a teaching career early in their life, perhaps less mature and knowledgeable (Zuzovsky, Donitsa-Schmidt, 2017). The concurrent model offers programs with more rigidly structured and less leeway.

Vice versa, the consecutive model is more advantageous than the concurrent one because the pedagogy courses are developed on a solid foundation of subject matter knowledge. Furthermore, the model enables a later and more flexible entry into teacher education. However, the advantages of the concurrent model will be the disadvantages of this paradigm. Students of the consecutive programs experience less integrated learning opportunities and a shorter time for professional socialization (OECD, 2005).

Some significant work has been conducted to provide a broad view of these teacher education models (Ingvarson et al., 2013, Craig, 2016). Craig's book chapter includes an appendix that describes the various types of teacher education programs in each country related to the models of ITE programs (concurrent/consecutive), length of programs, years for each grade, and focus. With a narrower scope, Ingvarson et al. (2013) describe similar information in 17 countries (Botswana, Canada, Chile, Chinese Taipei, Georgia, Germany, Malaysia, Norway, Oman, Philippines, Poland, Russian Federation, Singapore, Spain, Switzerland, Thailand, and the United States). In this study, the models of ITE in five countries will be discussed as a theoretical foundation for a suggested model in Vietnam, namely: Singapore, Thailand, the US, New Zealand, and Finland. The selection of these countries does not only aim at some of Vietnam's neighboring countries in Asia for shared geopolitical features but is also based on the desire to learn from experiences of countries with "good practices" of teacher education for their training quality and flexibility to meet various demands of their labor markets such as New Zealand, Finland, and the US. Most of the information on these countries' ITE models was synthesized from Ingvarson et al. (2013) and Craig (2016).

Teacher education models in Singapore

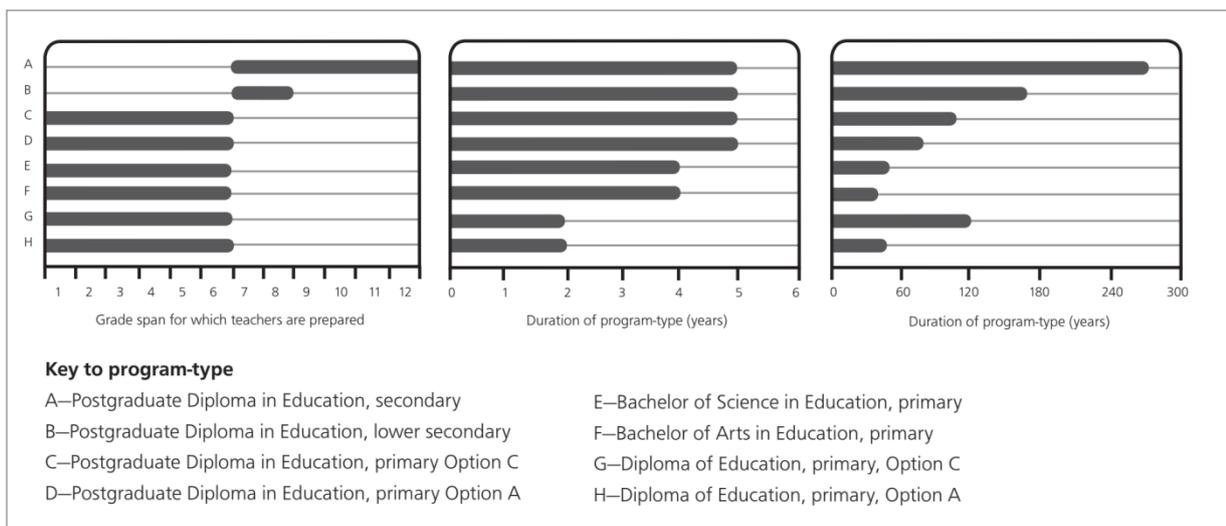


Fig. 1. Teacher education in Singapore (Schwille et al., 2013:65)

Although Singapore only has one institution that offers teacher education, the structure of the program types available is complex. In Singapore, teacher education reflects the structure of the general education system: primary education: grades 1–6 and secondary education: grades 7–10. Postsecondary education includes grades 11 and 12. The majority of future teachers begin teacher training after finishing Grade 12 (A-level), but some obtain a polytechnic diploma and start this course of study after completing Grade 10 (Low, Tan, 2017).

Teachers are trained in eight types of programs: four concurrent and four consecutive. The concurrent programs have two variants: diploma and degree program types. A general diploma program lasts two years, and a bachelor’s degree (BA or BS) lasts four years. The diploma program is the only concurrent model type requiring less than three years of study at a higher education institution. Students also have two other options for the primary diploma: A and C options. For option A, students are trained to teach two subjects, and for option C, they are trained to teach three subjects. For the consecutive models, students will be awarded a postgraduate diploma in education (PGDE) which allows them to teach in primary schools or in secondary schools (Schwille et al., 2013).

The diplomas are designed for future teachers who have already been awarded a bachelor’s degree and intend to enroll in the second phase of the program at the National Institute of Education in Singapore. As seen in Figure 1, the top four bars in the middle chart are for diplomas, but they also include four years of degree study plus one year of teacher education, for a total program duration of five years.

Teacher education models in Thailand

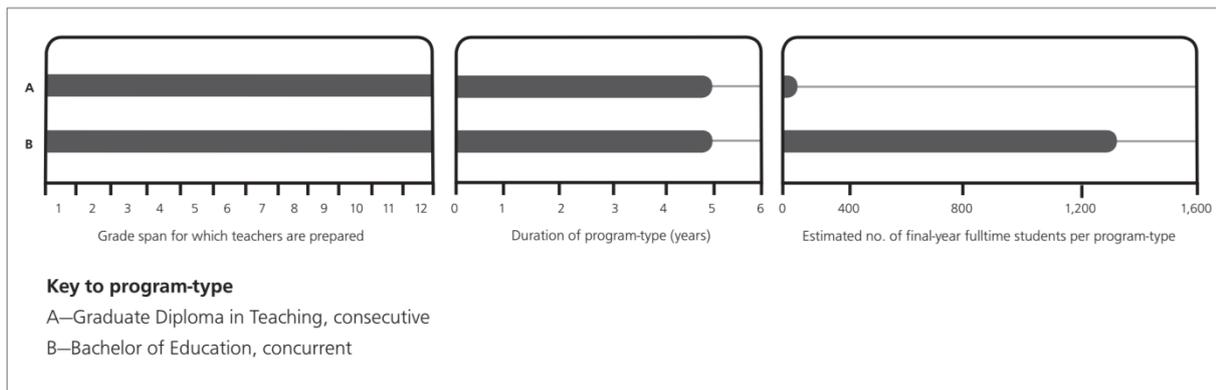


Fig. 2. Teacher education in Thailand (Schwille et al., 2013: 71)

K12 education system in Thailand is 6–3–3: six years for primary school, three years for lower secondary, and three years for upper secondary school. The universal compulsory schooling is an upper secondary school (Cordova, 2019). Universities with education faculties are in charge of providing ITE programs for future teachers of primary and secondary schools. Those who have already obtained a bachelor’s degree in an academic discipline other than education are required to enroll and complete a graduate diploma (one-year full-time study) which defines the consecutive model of Thailand teacher education. After the cohort students in 2007 graduated, the ITE programs in Thailand last five years instead of four. There is no difference in teacher preparation for elementary and secondary grades up to Grade 12 (Schwille et al., 2013).

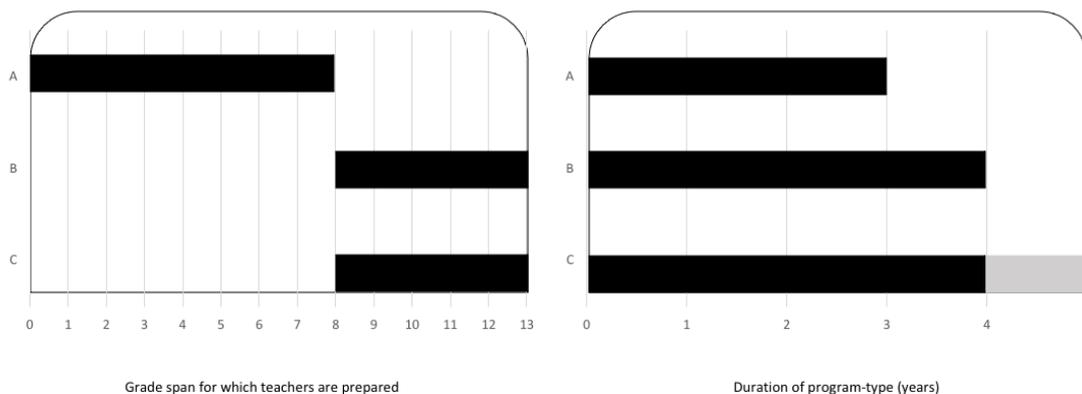
Teacher education models in New Zealand

Although New Zealand ranks relatively high on international rankings such as the OECD’s Programme for International Student Assessment, compared to other higher-achieving countries, the gap between the highest and lowest-achieving students in New Zealand is quite large. In New Zealand, Maori students and students from the Pacific islands make up most of the low-achieving group, while students from Europe and Asia are in the higher-achieving group. This poses a significant challenge for the education system in New Zealand as to whether this education system is serving some population groups better than others and not reducing inequality. Accordingly, teacher education is an important lever to improve this issue (OECD, 2013).

In 2008, a change in party leadership in the New Zealand government led to new education policies. One of them is the policy on national literacy standards and the ability to do maths for primary school students introduced in 2010, despite some opposition. These standards are inconsistent with the open and process-based universal general curriculum. The national exam was not introduced along with the standards. Instead, teachers are required to make a “general assessment.” This process appreciates the expertise of teachers but also requires teachers to have new skills in selecting and analyzing evidence. Meeting both requirements is a challenge for teacher education programs in New Zealand (Alcorn, 2013).

There are two common (traditional) paths to becoming a teacher in New Zealand: completing a bachelor's degree in education/pedagogy and completing a certificate of teaching/pedagogy along with a bachelor's degree in other fields (but relevant to the area of teaching). With the first route, students can obtain a bachelor's degree in pedagogy after completing the program for three or four years. With the second route, applicants who already have a bachelor's degree in any subject (applying to the primary or secondary education program) can also study for an additional year to obtain a certificate in teaching. Another route to becoming a high school teacher is being considered. Candidates need to have a postgraduate degree, both study and practice under the internship program organized by universities in close coordination with high schools. Applicants desiring to teach at Maori secondary schools (schools for natives in New Zealand) must complete their respective pedagogical profession courses taught in Maori (University of Waikato, 2022; Cameron, Baker, 2004; University of Auckland, 2022).

Specifically, the training level of primary and secondary school teachers belongs to some large groups: Three-year bachelor of education (primary level); four-year bachelor of education or four-year Bachelor of arts/science and one-year pedagogical profession (secondary level). Learning and teaching methods in New Zealand's universities are diverse, including studying in various locations through key campuses and satellite schools, and remote and web-based learning. Online learning is also increasingly used for some courses (University of Waikato, 2022; Cameron, Baker, 2004; University of Auckland, 2022).



**Key to program-type**

A – Bachelor's degree of education, concurrent

B – Bachelor's degree of education, concurrent

C – Bachelor's degree + a certificate of pedagogy/teaching methodology, consecutive

**Fig. 3.** Teacher education in New Zealand

**Teacher education models in Finland**

Finnish teachers are involved in various tasks such as planning the local curriculum and organizing the evaluation of this curriculum, as well as establishing professional networks and partnerships. Due to these high requirements, although there are some differences in primary and subject teacher training programs between universities due to the autonomy of the institutions, primary and secondary teachers in Finland require a master's degree (Lavonen, 2016). In fact, as of

the early 2000s, Finland had a tradition of 35 years of educating primary teachers in master's programs and more than 100 years for secondary teachers (Jakku-Sihvonen, Niemi, 2006).

All nine Finnish universities with teacher education programs have their teacher education strategies under national coordination to ensure transferability but still encourage local initiatives to maximize each university's resources and facilities. They can even decide for themselves the content of pedagogical sections consisting of 60 ECTS credits as there are some changes in the duration of supervised teaching practice. However, in general, teacher education in Finland focuses on the harmonious development of the professional competencies and personal competencies of future teachers, with an emphasis on building pedagogical thinking skills, allowing teachers to effectively manage teaching processes (Westbury et al., 2005). In addition, this diversity ensures that newly trained Finnish teachers have balanced knowledge and skills in theory and practice (Sahlberg, 2015).

Finland mainly pursues a concurrent teacher education model. However, at the secondary level, the teacher education model in Finland is also relatively diverse and exists in both the concurrent and consecutive models. There are two main ways to become a high school teacher, the first of which is that students can study for a bachelor's degree in education from the beginning and then continue to pursue a master's program in the same field. This model can also be seen as a concurrent model because the professional and pedagogical training courses are taught simultaneously during the training process for five years. As for the other path, students can graduate from an undergraduate or a graduate program in a non-teacher education field that corresponds to the subject taught at the school (e.g., Bachelor of Chemistry, Bachelor of Physics, Master in Chemistry, Master in Physics, etc.) and study an additional year in education/pedagogy if they want to become a high school teacher. In this case, the education model can be understood as a two-stage consecutive model in which the first few years students are taught about professional knowledge in the field of subject and the last year (after students get a bachelor's degree or during/after students get a master's degree) students are deeply educated about teaching methodologies/pedagogy (Malinen et al., 2012). Given the high professional requirements and the intensive nature of master's degree programs, students theoretically only need five years to complete their bachelor's and master's programs. Still, the reality is that the average study takes up to six years (Sahlberg, 2015).

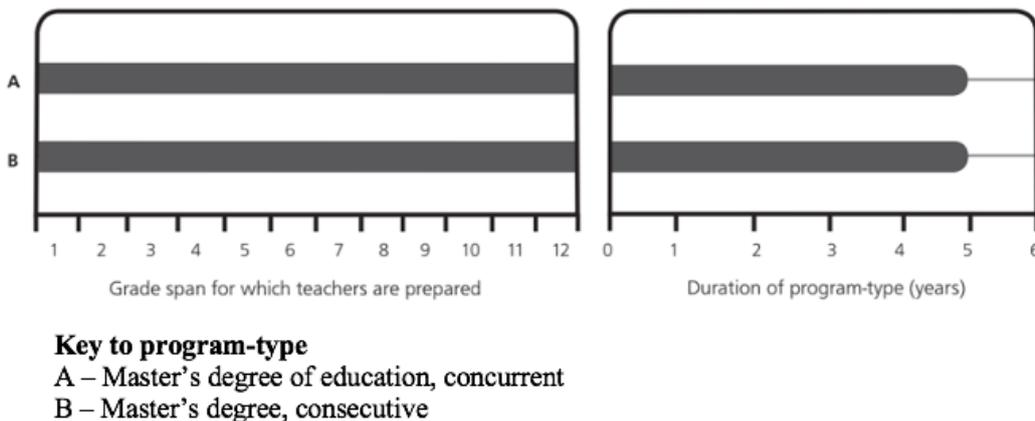


Fig. 4. Teacher education in Finland

Teacher education models in the US

The federal No Child Left Behind legislation in the US has defined and changed requirements for teachers (Ries et al., 2016). It requires teachers to demonstrate knowledge of the subjects they will be taught in schools. The legislation neither specifies requirements for a national curriculum nor describes various requirements for certification offered by universities and colleges across the US. Instead, it provides an overview of the three grade spans: primary, lower-secondary, and secondary, in concurrent and consecutive models, leading to six major program types. However, in the US, there is an overlap in the grade levels. Teachers who are prepared to teach in a lower-

secondary program can teach in primary school. Teachers teaching in lower-secondary can study and complete either a lower-secondary or a lower-plus upper-secondary program. As a result, the content knowledge learned by these teachers might be rather diverse. To be eligible for teacher education, applicants in the US must meet varied additional requirements from ITE colleges/universities and states. These variations include minimum GPA, prerequisites, SAT or ACT scores, or results of licensing in each state.

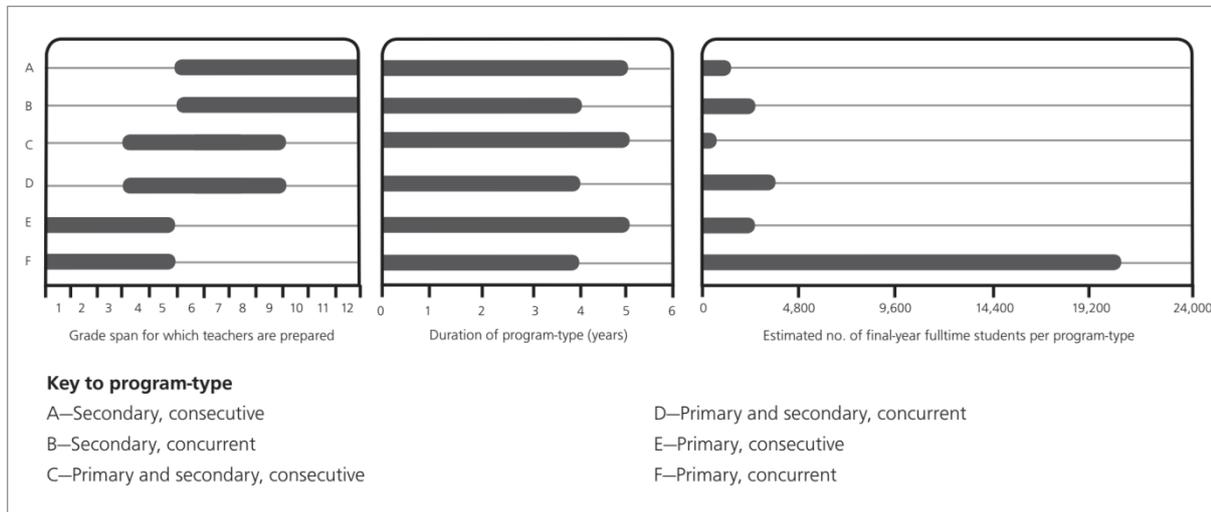


Fig. 5. Teacher education in the US (Schwille et al., 2013: 73)

The US also witnesses an increasing trend of alternative routes to licensing besides the traditional program types. They are different across states, which is believed to reflect the demand and supply picture of each state (Darling-Hammond, 2013).

In the US, besides popular models, there exists a “combined” model in the case of Texas. In Texas, the most frequent teacher education plan is for preservice secondary teachers to earn a bachelor’s degree in four years. Students attend courses in a variety of academic subjects during their first two years, with a focus on the subject area for which they will eventually be certified. At the end of their second year, students apply to a teacher training program at a College of Education. Students accepted into the program must enroll in pedagogy courses for the next two years. In the second of these two years, students spend one semester taking classes and observing in schools. Following that, during their final semester, students must perform a practicum, commonly known as student teaching (Ries et al., 2016).

Taking Texas State University as an example, candidates must be enrolled in university courses and complete them on a traditional fall/spring/summer schedule. Students admitted to this traditional teacher education program are required to complete a bachelors’ degree and certification.

The Department of Department of Chemistry and Biochemistry offers bachelor of science degrees in chemistry, biochemistry, and chemistry with teaching certification. For teaching certification, students can earn a Chemistry (Grades 7-12) certification while enrolling in a double major with a B.S. major in Chemistry and a B.S. major in Education (Texas State University, 2022). All students seeking teacher certification must apply for and be admitted to the Educator Preparation Program to enroll in education coursework and student teaching in the junior and senior years. Students should consult their Advising Center’s degree plan check sheets for guidance on how to complete the Educator Preparation course sequence in their degree plan. Each Educator Preparation sequence, in general, consists of introductory “Education Core” classes, at least one 15-week semester of Field-Based Block coursework, and a final 15-week semester of Student Teaching after all other coursework has been completed. Students must apply for Field-Based Block coursework and Student Teaching coursework.

## 2. An overview of teacher education in Vietnam

### The concurrent and consecutive model

In Vietnam, currently, there are more than 100 teacher education institutions, including colleges and universities specializing in teacher education, faculties of education located within multidisciplinary universities and schools. The types and numbers of these institutions are presented in the table below. Teacher education in these institutions has been implemented under various models, but the application of the traditional model, also known as the concurrent model, among these institutions is much more popular than others (Duong, 2021; Nguyen et al., 2019).

**Table 3.** The types and numbers of teacher education institutions in Vietnam until the end of the academic year 2017–2018 (Nguyen et al., 2019: 68)

Order	Types	Quantity
1	University of Education (pedagogy)	6
2	Teaching education program within a multidisciplinary university	55
3	Vietnam National University, University of Education	1
4	Teacher education college	29
5	Teaching education program within a multidisciplinary college	22
6	Teacher training professional school	2
7	Teacher education program within a vocational school	Unavailable data

As for institutions following the concurrent model, through a survey of training programs of Hanoi National University of Education, the Ho Chi Minh City University of Education (HCMUE), the University of Education – the University of Danang, and the Faculty of Education – Can Tho University, on the whole Duong (2021) found that the structure of the training programs for teacher education of these universities shares some characteristics. Specifically, they have 24 credits for general courses as stipulated by the Ministry of Education and Training. Although the grouping of courses is implemented according to the particular way of each training institution, in general, a teacher education program consists of three main groups: general knowledge, academic knowledge/disciplinary content knowledge, and professional knowledge/educational and pedagogical knowledge. Regarding the organization of training, groups of courses are organized in parallel with each other. Learners both receive advanced training in their discipline and have opportunities to study teaching methodologies and other educational matters (Duong, 2021).

Compared to other countries as analyzed above, in general, the similarity between the concurrent teacher education model of Vietnam and other countries lies in the structural component of the training program, which includes groups of courses: general courses, disciplinary courses, and courses concerning teaching, education, and practicum. In terms of training duration, except for a few cases like Thailand (for bachelor's degree) where students are trained for five years to become in-service teachers, the training duration for preservice teachers in Vietnam is similar to that in many countries, which lasts for four years. The difference in the teacher education models of Vietnam and other countries lies mainly in the organization of the training process. Specifically, the practicum is systematically and efficiently organized in Thailand (including close cooperation between teacher education institutions and satellite schools with clear and detailed requirements for each unit concerning providing supervision for preservice teachers during their practicum and organizing the practicum). In contrast, the practicum of preservice teachers at high schools in Vietnam has many problems, such as the lack of systematic linkage between teacher education organizations and schools as well as the deficiency of support for preservice teachers' practicum from both teachers and lecturers (Duong, 2021; Duong et al., 2021). In some countries, the selection of learners for teacher education institutions is carried out relatively strictly to ensure the best quality of preservice teachers, especially in Singapore. However, teacher education in Vietnam mainly uses students' scores from the national examination organized by the Ministry of

Education and Training to select learners instead of having their specific selection criteria and processes (Duong, 2021; Duong et al., 2021).

About one decade ago, the Ministry of Education and Training allowed teacher education institutions to carry out the consecutive model (this means that graduates from specific disciplines can become teachers after earning a certificate of pedagogy/teaching methodology). After a period of suspension, in 2021, the Ministry issued circulars allowing teacher education institutions to continue their ITE according to the previous model, and the Ministry of Education and Training also formulated specific curricula that teacher education institutions are required to utilize when they apply this model for teacher education. For instance, according to Circular No. 12/2021/TT-BGDĐT, which promulgates regulations on training pedagogical content for those already having bachelor's degrees in relevant disciplines and wishing to become secondary and high school teachers (lower and upper secondary school teachers), there are two groups of courses including general and specific. As for the general group, there are seven compulsory courses including Educational Psychology, Educational Studies, Teaching Theory, Educational Assessment, State Management of Education, Pedagogical Communication, and Pedagogical Training. Besides compulsory courses, the Ministry also provided ten elective ones from which students have to choose two (Ministry of Education and Training, 2021b). The total number of credit units in this group is 17. Regarding the specific group for secondary or high school teachers (lower or upper secondary school teachers), there are nine credits for elective courses specializing in a particular subject, six credits for compulsory courses about practice/teaching practicum, and two credits for elective courses. This kind of program lasts for a minimum of one year and a maximum of two years with a total of about 35 credits, and the content focuses on pedagogical training, teaching methods, and practicum (Ministry of Education and Training, 2021a; Ministry of Education and Training, 2021b).

The consecutive mode of educating preservice teachers implemented some decades ago and allowed again from 2021 is generally similar to the model applied in many countries around the world in the way that after having a suitable bachelor's degree, a graduate can pursue a pedagogical/teaching methodology training program to become a teacher. After some periods of suspension, currently, this model is in its operation. While there are still no data available concerning the implementation of this model as it has just been relaunched, the curricula promulgated by the Ministry of Education and Training for this type of teacher education show the state's interest in this model to able to provide the sufficient quantity of qualified teachers for society now and in the future. In addition, this model also allows more people to have the opportunity to become teachers, especially those who have not had an intention to join the teaching profession for their first degree and wish to change careers later.

#### **The A+B model of teacher education**

The A+B model is quite different from the consecutive model commonly applied in many countries since, at the end of the first phase, the student has not received a bachelor's degree. In other words, the two phases are relatively separate but still in the same training program, and the student only receives a degree in teaching/education after completing the program. This practice of training student teachers is similar to the model implemented in Texas, the US, as described above. In Vietnam, this form has been deployed most clearly at the University of Education, Vietnam National University, Hanoi, with some changes over different periods. It is currently known as the A+B model. Specifically, in the period 2000–2005, the training of teachers at the University of Education, Vietnam National University, Hanoi was organized according to the consecutive and concurrent models, called the 3+1 model. With this model, students in the first three years mainly studied general knowledge and disciplinary content knowledge at member universities such as the University of Natural Sciences and the University of Social Sciences and Humanities. Although it did not account for a large proportion, the amount of knowledge on education/pedagogy was also provided right from the first year, with an increasing amount in the following semesters. In the following period, 2006–2012, the University of Education deployed the consecutive 3+1 model. With this model, as for the group of disciplinary content knowledge, student teachers were trained and managed together with students from other programs at member universities during the first three years. After that, the learning results of the first three years of student teachers were transferred to the University of Education, where courses relating education/teaching, practicum, and graduation thesis were organized. Under this model, students

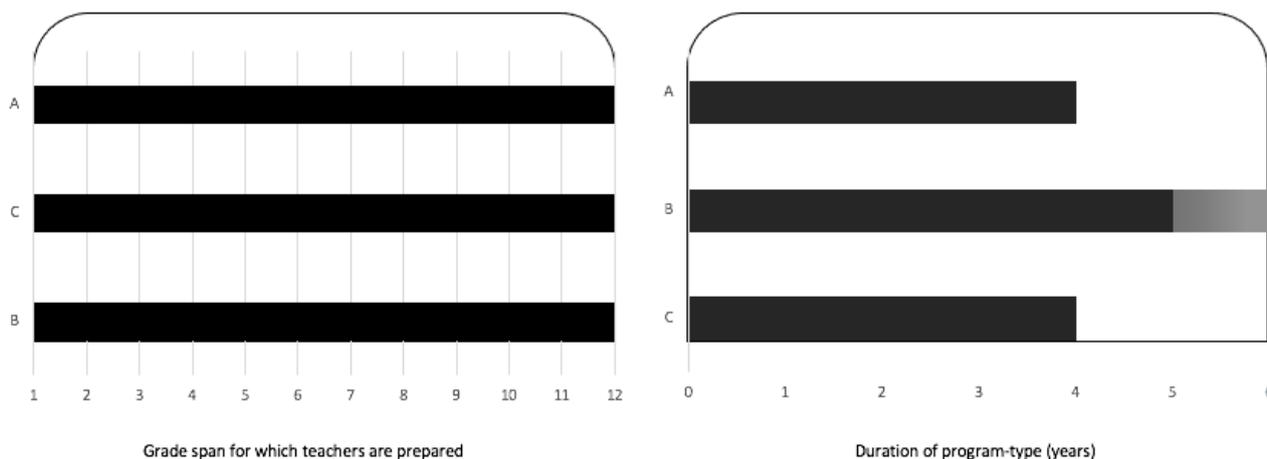
can only choose teaching/pedagogical courses in the last year at the University of Education, and so “there are some issues in student administration leading to the policy change that the courses of pedagogy should be selected as early as possible as of freshman and sophomore” (Nguyen et al., 2019: 71). From the academic year 2012–2013 up to now, the University of Education has applied the A+B model in teacher education activities. With this model, general courses and disciplinary courses are organized at member universities of Vietnam National University, Hanoi. The University of Education organizes training courses on teaching and education. The undergraduate program in teacher education built by the University of Education, regarding training programs of the University of Natural Sciences and the University of Social Sciences and Humanities, respects the principle of ensuring continuity and connection with the programs of two other member universities. Therefore, the majority of courses in undergraduate teacher education programs and non-teacher education programs, which are selected for the model A+B for teacher education, are the same, sharing from 100 to 105 out of the 140 total credits (University of Education, 2020). Regarding the program management, it is different from the past models where the “responsibility of administration of the first three years belonged to other member universities.” In this model, this responsibility “was regained to Vietnam National University – The University of Education for all four years.” (Nguyen et al., 2019: 70).

Some other multidisciplinary universities in Vietnam are also starting to educate preservice teachers according to the A+B model, similar to that of the University of Education. Among these institutions is Dalat University. Due to its features as an independent university rather than working as a member of a large university like the case of the University of Education, teacher education programs at Dalat University are connected with other programs in the same university. Students of the Department of Education are required to accumulate enough credits in a program in natural sciences or in social sciences and humanities as well as credits in education/teaching methodologies to be granted a bachelor’s degree in teaching/education. This model also makes it possible for students to obtain a bachelor’s degree in teaching/education and another one in a different field when they pursue double majors (Dalat University, 2016; University of Education, 2020).

In general, the A+B model in Vietnam is similar to the consecutive model in some other countries. Students acquire academic knowledge/disciplinary content knowledge from some units (faculties or universities) and then receive training about teaching/education in a division specializing in teacher education. However, students only earn a bachelor’s degree in teaching/education after completing their program of study. Compared to the consecutive model, this model requires less training time as students can still complete the program in four years instead of having to spend from one to two more years getting a certificate of teaching methodology/pedagogy to be able to work as in-service teachers. Against the context of Vietnam, the A+B model of teacher education implemented at the University of Education in comparison with the concurrent model also shows openness, robust transferability, and flexibility in changing from a bachelor’s degree in science or arts to one in teaching/education and vice versa. Besides, the quality of training is high when a team of highly qualified lecturers and leading professors of basic sciences participate in training preservice teachers. The A+B model also provides a significant amount of time and plenty of opportunities for students to deepen and broaden their knowledge as the total number of credits accounts for 140. At the same time, teacher education programs in other institutions have less (University of Education, 2020). However, it is also true that besides various advantages, there are barriers to implementing the A+B model because it requires institutions to be multidisciplinary to ensure that preservice teachers can study with students from relevant programs. Otherwise, joint training must be allowed, and there must be strict regulations on the roles, rights, and obligations of partners. Selecting and assigning students to a particular program requires resources and time (University of Education, 2020; Nguyen, 2020). This is more difficult in the context that the policies for improving the quality of the teaching staff in teacher education institutions are still ineffective and insufficient, and the infrastructures of teacher education institutions, including laboratories and teaching equipment, are still limited in terms of quality and quantity (Nguyen, 2020).

It can be seen that ITE in Vietnam is being carried out according to different models in various types of institutions, including universities, colleges, and schools. The main characteristics of teacher education models at the university level in Vietnam are shown in the following figure. Of these models, the concurrent one is the most popular, and it is also maintained throughout the history of

Vietnamese teacher education while the consecutive model has experienced some suspension. Under the needs of learners and society for teachers and the teaching profession, from 2021, this model has been allowed to be implemented again with a more extended training program prescribed by the Ministry of Education and Training. Due to Vietnam's higher education institutions' characteristics in terms of university governance, facilities, human resources, and other factors, teacher education in the country is also carried out according to a new model. This A+B model can be seen as a combination of the concurrent and consecutive models. Until now, the A+B model has been mainly deployed at an institution that belongs to a national university with various members. Research on the ability to deploy this model at independent universities, where most of Vietnam's teacher education programs are organized, is necessary to provide scientific information to these organizations in reforming their ITE.



**Fig. 6.** Teacher education at the university level in Vietnam

Notes:

Key to program-type

A – Bachelor's degree of education, concurrent

B – Bachelor's degree + a certificate of pedagogy/teaching methodology, consecutive

C – Bachelor's degree of education, A+B

### **A suggested training model for Ho Chi Minh City University of Education – a case study**

HCMUE is one of two national key universities of education in Vietnam. HCMUE initially focused on teacher training only. Therefore, the teacher education model at HCMUE was purely a concurrent model in the past. However, some non-teacher education undergraduate programs have been developed in line with the mission and the vision of HCMUE. Currently, HCMUE offers 39 undergraduate programs, 19 of which are non-teacher education programs. The implementation of non-teacher education programs is also based on the same resources (e.g. human resources and facilities). Thus, there is a close relationship between the non-teacher education and teacher education undergraduate programs at the University. At the University, a non-teacher education program is usually developed based on an available teacher education program. For example, the Department of English, the Department of Chemistry, etc. offer programs in English Linguistics, Chemistry, etc. respectively besides teacher education programs in these fields.

Regarding the structure of the training programs, currently, the number of credit units of the teacher education programs at HCMUE ranges from 130 to 135 and these programs fully demonstrate the characteristics of the concurrent teacher education model. Accordingly, students take courses of scientific expertise and pedagogy simultaneously. Furthermore, under the competency-based approach, the teacher education program learning outcomes at HCMUE include four groups: qualities, general competencies, specialized competencies, and professional competencies. Therefore, the courses in the training program are divided into four groups with the ratio shown in Table 5. Students can receive a bachelor's degree in teaching/education from HCMUE after four years of study.

**Table 4.** The current structure of teacher education programs at HCMUE

No	Groups of learning outcomes	Ratios (out of the entire program)	Descriptions
1	General education	25-30 %	Typical courses for all undergraduate programs at HCMUE, including Political Education, Physical Education, Military Education, Foreign Languages, Information Technology, etc.
2	Specialized courses	40-47 %	Courses provide scientific knowledge, including basic and advanced courses.
3	Professional courses	17-18 %	Courses provide pedagogical knowledge and skills, including common courses for all teacher education programs and typical courses for specific teacher education programs.
4	Professional practice, graduation research or alternative graduation courses	11-12 %	Courses require students to practice at high schools, conduct graduation research or complete alternative graduation courses.

The courses in the General Education group (1), available in all undergraduate programs, are provided for all undergraduate students at HCMUE. Regarding the group of Specialized courses (2), the similarity rate of these courses in an undergraduate non-teacher education program and in a teacher education program (in the same academic field) is different between departments. However, this ratio has not been discussed at the university level. Besides, the integration and transferability have not been clearly shown among the teacher education programs in the same field such as natural sciences (Chemistry, Physics, and Biology) or social sciences (Literature, History, and Geography). The courses in the Professional group are related to the field of education and are delivered from the 1<sup>st</sup> semester to the 7<sup>th</sup> semester. In addition, common professional courses such as Psychology and General Education are arranged in the first three semesters.

The training program structure mentioned above clearly shows the characteristics of the concurrent teacher education model. Although in some aspects, such as student quality and organization, this model has proven to be effective, more connection and transferability between programs for efficient use of the University's resources has become an indispensable requirement since this teacher education institution has transformed itself into a multidisciplinary university.

To ensure the connection and transferability between the teacher education and non-teacher education programs at HCMUE, to inherit the existing model's effectiveness, and optimize the resources while offering undergraduate non-teacher education programs, HCMUE could consider a program structure with three following components:

- + Component 1: Fundamental knowledge of the academic field of science;
- + Component 2: Educational sciences knowledge for a teacher education program or professional knowledge for a non-teacher education program, and graduation thesis/project;
- + Component 3: Professional practicum at high schools for teacher education programs or professional internships for non-teacher education programs.

In this proposed structure, the transferability of the teacher education and non-teacher education programs in the same academic field at HCMUE is considered. At the same time, the timeline for professional courses has to be made appropriately. Also, to ensure a reasonable study plan for preservice teachers, the teaching plans of professional courses and the weight of these courses should be paid attention to, while students participate in most of the courses offered for all undergraduate programs and in specific groups of courses or sectors of programs. It can be seen that the A+B model, with the combination of the characteristics of the two traditional models: the concurrent and the consecutive, can be implemented in the suggested structure. With this A+B model, academic knowledge/disciplinary content knowledge and professional knowledge/

educational and pedagogical knowledge are provided separately to only some extent in two phases. Unlike the A+B model that has been widely deployed at the University of Education – Hanoi National University in Vietnam where non-teacher education-related courses are taught at other member universities of Hanoi National University, in the A+B model at HCMUE, all kinds of courses are taught in HCMUE’s departments. This is because HCMUE is an independent university with teacher education and non-teacher education programs. With this type of implementation, the nature of the model A+B remains unchanged, but there is a difference in the way courses are organized.

Table 5 shows a proposed structure of teacher education programs for sectors of disciplines (e.g. natural sciences and social sciences). The growth of equivalent courses among the teacher education programs in each sector of disciplines has been considered.

**Table 5.** A proposed structure for the teacher training program at HCMUE

Components	Groups	Transferability in undergraduate programs
(1) Fundamental knowledge	(1) General knowledge	Common for all undergraduate programs at HCMUE
	(2) Specialized knowledge of a specific sector of discipline	Common for all undergraduate programs of a particular sector of discipline  E.g. The sector of natural sciences includes programs in Chemistry, Chemistry Teacher Education, Physics, Physics Teacher Education, etc.; the sector of social sciences includes programs in Literature, Literature Teacher Education, Geography, Geography Teacher Education, etc.
	(3) Specialized knowledge for teacher education and non-teacher education program in a specific academic field	Common for teacher education and non-teacher education programs in a specific academic field; e.g. Chemistry and Chemistry Teacher Education, Literature and Literature Teacher Education.
	(4) Specialized knowledge for a specific teacher education program	
(2) Educational sciences knowledge, graduation thesis or project	(5) Educational sciences knowledge for all teacher education programs	Common for all teacher education programs
	(6) Educational sciences knowledge for all teacher education programs in a specific sector of discipline	Common for all teacher training programs in a specific of discipline (e.g. Natural science sector and social science sector)
	(7) Educational sciences knowledge for a specific teacher education program	
(3) Professional practicum	(8) Graduation thesis or project	
	(9) Professional practicum	Common for all teacher training programs

The transferability and integration of training programs have been enhanced as shown in the proposed structure. Regarding the components: Specialized knowledge and Educational science

knowledge, only three groups of courses, show the specificity of a particular teacher education program. With these features, other teacher education models can implement the proposed structure. Learners only have to complete components 2 and 3 to obtain a bachelor's degree in teacher education in the same academic field. Also, learners have more opportunities to concurrently participate in two teacher education programs in the same sector. Students have to complete four out of 9 groups to finish the second teacher education program.

The structure of the component “Educational sciences knowledge” has been clarified in [Table 6](#).

**Table 6.** Proposal of courses of educational sciences for a specific sector of discipline in an undergraduate program of teacher education at HCMUE

Groups	Courses	Numbers of credits	Semesters
(2.1) Educational sciences knowledge for all teacher education programs	Introduction to the teaching career	1	1
	Psychological Education	2	3
	Pedagogical Communication	2	3
	General Education	2	3
	Foundations on theory and methods of teaching	2	4
	Testing and Evaluation in Education	2	4
	Organizing Educational Activities at High Schools	2	4
	(2.2) Educational sciences knowledge for all teacher education programs in a specific sector of discipline (e.g., Natural science, social science, and foreign languages)	Appropriate courses for a specific sector of discipline	From 2 to 4 credits
(2.3) Educational sciences knowledge for a specific teacher training program	Methods of teaching a specific subject	From 10 to 14 credits	Mainly arranged from semester 5 to 7
	Applying ICT in teaching a specific subject		
	Curriculum development in teaching a specific subject		
3. Professional practicum	Regular Pedagogical Skill Training	2	5
	Teaching Practicum 1	2	6
	Teaching Practicum 2	6	8

#### 4. Discussion

The research presents different teacher education models around the world with a focus on a few countries, namely Singapore, Thailand, the United States, Finland, New Zealand, and models in Vietnam. It is evident that countries apply different models instead of one to initial teacher education, and Vietnam is no exception. Besides the two popular teacher education models, the concurrent and the consecutive ones, under specific circumstances, the “combined” model, called A+B, has been implemented in some Vietnamese universities to meet teachers' needs and join the teaching profession of society and individuals. The restructured curriculum shows the connection and transferability with clear orientation, not only among teacher education programs but also between teacher education and non-teacher education programs within a university. This structure is similar to the A+B teacher education model. Accordingly, academic knowledge/disciplinary content knowledge and professional knowledge/educational and pedagogical knowledge are provided separately to only some extent in two phases. In other words,

these two phases still have some interlacing parts. Some general pedagogical training courses for teacher education programs are taught in the first two years to enhance students' understanding of the teaching profession and build professional engagement, which will help overcome the consecutive model's limitations. This structure is suitable for a university offering multidisciplinary undergraduate programs, including teacher education and non-teacher education, as HCMUE. Generally, this structure does not complicate the organization of training activities and contributes to the efficient use of resources when students from different programs can take many common courses. In addition, there will have more learning opportunities for students as they can easily transfer to other programs, especially in close disciplines because of the high transferability of the proposed model.

## 5. Conclusion

The review of ITEs model in these countries shows that they have developed two pathways to ITEs: consecutive and concurrent models. Historical, political, and social backgrounds have significantly shaped their dominant models of ITEs. For example, while ITEs in New Zealand tend to follow the consecutive model in secondary education, Singapore follows the concurrent and centralized models in teacher education. The diversification in providing ITE programs in the US reflects the diverse structure of teacher education systems in this country. The literature review also shows that concurrent or consecutive models have advantages and disadvantages. Therefore, in the reviewed countries in this study, these two models co-exist to complement each other (Dejene et al., 2018; Zhang et al., 2018; Zuzovsky, Donitsa-Schmidt, 2017).

Regarding the length of ITE programs, Finland and Thailand lead the trend. Thailand increases the size of practicum to one year and then increases the overall time for ITE programs. Finland is the leading country that requires master's degrees as minimum qualifications to become a teacher. These practices in ITEs, to some extent, demonstrate that despite more time denoting more costs, the quality of ITE programs is seriously considered.

The review of ITE models and programs in this study also illustrates a similar approach to combining two stages in the concurrent model as witnessed in Texas and the University of Education, Vietnam National University, Hanoi. This approach has been defined as the A+B model in this study. Ho Chi Minh University of Education is a key teacher education university in Vietnam and strategizes to be a multidisciplinary university offering teacher and non-teacher education. The current dominant concurrent model in ITE in HCMUE seems not to be an effective approach and fails to create a flexible pathway and maximize human resources of teacher and non-teacher education. The proposed model in HCMUE is believed to be practical for HCMUE and contributes to the understanding and diversity of how teacher education is implemented. The proposed model will take advantage of a multidisciplinary university such as HCMUE and promote transferability between the first stages of teacher and non-teacher education.

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