

TEACHER EDUCATION REFORM MODELS: FROM A WORLDWIDE OVERVIEW TO VIETNAM'S REALITY

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Abstract: Teaching is considered as one of the most noble callings in Vietnam, yet in recent years the enrollment and training of teacher students has been in crisis due to a lack of concern from society compared to the previous time and a shortage of job positions after graduation. As a result, it is necessary to reform the conventional model of teacher education and shifting from the quantitative training approach to the qualitative focus. This article presents an overview of teacher education in some countries, thereby analysing remaining issues of teacher education in Vietnam and proposing a model to reform teacher education.

Key words: teacher education; Vietnam; continuing model.

1. Background

Training teachers to meet the requirements of capacity which guide students to get acquainted with doing researches creatively and applying sciences in real life has become one of the topics receiving much attention from educational researchers. Currently, there have been researches in training and developing teachers' competence such as integrated teaching methods, active teaching techniques, and assessment methods. In other countries, education reforming is carried out in parallel with improving teacher's quality and changing teacher education system in faculties/universities of pedagogy.

Building a strategy of competence development for pedagogical students, including specialized knowledge and pedagogical skills, is a prerequisite to improve the quality of education. Currently, there have been two

2. Parallel training model (learning specialized knowledge and developing pedagogical skills at the same time)

In Vietnam, these two models have been being applied in some universities/faculties of pedagogy. However, researching into teacher education models is still limited, especially in the urgent context of educational reforms nowadays. To choose and develop an appropriate training model for the current situation in Vietnam, it is necessary to learn the experience of other countries and analyze the advantages and disadvantages of applying their models in Vietnam. This research can be an important base for educators and managers to undertake the reform of teacher education.

This article aims to assess the research situation related to teacher training models in and outside the country and identify the advantages and disadvantages of previous models. It then proposes a prospective model for teacher education in Vietnam.

2. Research approach

A new model of teacher education has been proposed by reviewing the literature, including articles and books related to teacher education and education system reforms in and outside Vietnam, and the statistical data on the current status of teacher education.

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main models of teacher education:

1. Continuing training model (learning specialized knowledge and then developing pedagogical skills)

It is worth mentioning that in this article, biology teacher education is specially reviewed.

3. Results

3.1. Overview of teacher education in some countries

3.1.1. Teacher education in Japan

During the period after World War II, with a lack of teacher resources, Japan reformed the teacher education to improve the quality of its education system. Two-year teacher education courses were discontinued in 1963 when the teacher demand was met [1]. Instead, the education department was established in at least one national university of each province to train teachers on a large scale and in a higher quality way.

Therefore, all high school teachers in Japan have a bachelor degree in undergraduate programs including general, specialized and pedagogical credits. Graduates are required to pass the examination of the Provincial Council in order to be granted a teacher certificate. Universities issue 3 levels of teacher certificates: Advanced (sensyu), First and Second.

The high school teacher education model in Japanese universities of education is a four-year parallel model including general education, specialized education, pedagogy, pedagogical internship, graduate internship and teacher certification program. There are many programs for granting vocational certificates, focusing mainly on education methods, professional practice, and professional teaching (Table 1).

Table 1. Requirements for teacher certificates in Japan

Type of teaching certificate		Basic requirements for qualifications	Minimum number of credits		
			Specialization	Pedagogy	Addition (Specialized/Pedagogical)
Kindergarten	Advanced	Master degree	6	35	34
	First	University degree	6	35	10
	Second	College degree	4	27	
Primary School	Advanced	Master degree	8	41	34
	First	University degree	8	41	10
	Second	College degree	4	31	2
Middle School	Advanced	Master degree	20	31	32
	First	University degree	20	31	8
	Second	College degree	10	21	4
High School	Advanced	Master degree	20	23	40
	First	University degree	20	23	16

(Source: [2])

Granting certificates for teachers conforms to the Law of Education & Human Resources Certification. It stipulates that anyone who wishes to work as a teacher

will be required to participate in an examination organized by the Provincial Board of Education. These certificates are divided into three categories: sensyu, first and second, depending on the level of the contestant.

There are three types of education for each class: general education (non-specialized), specialized education (mathematics, physics, chemistry,...) and non-academic education (physical education, music, art,...) [1].

In general, universities play a key role in helping students acquire the initial qualities and abilities of a teacher. Then the training is made for all new teachers within one year (2 days/week) under the guidance of experienced teachers and they are monitored, evaluated by the Provincial Education Council. After this program, teachers report results on what they already know about the mission and sense of responsibility for teachers, learn how to teach a one-period lesson, manage classrooms, establish relationships with children, and have other experiences.

The new teacher education system has three basic characteristics: (1). A system compatible with higher education; (2). An open system, and (3). A certificate-based system [3].

3.1.2. Teacher education in Europe

The education of many European countries is considered to take the lead in the world with a team of highly trained teachers. The European Commission regularly emphasizes the issue of quality management of teacher education in the countries. In 2007, the Commission issued a document regulating the quality of teachers and the quality of teacher education by emphasizing the competence and quality of teachers [4].

In Europe, there are two models of teacher education (parallel and serial). For example, Germany implements a parallel training model for high school teachers and a continuing training model for teachers of vocational schools and vocational education; or in England, there are many ways to become a teacher with a parallel model (specialized bachelor's degree + pedagogy bachelor's degree) or a serial model (bachelor's degree + 1-2 years of pedagogy). Table 2 describes training periods in European countries.

Table 2. Teacher education time in some European countries (years)

Countries	Primary School Education	Middle School Education	High School Education
Austria	3	4	5
Belgium (Flanders)	3	3	4.5
Belgium (Wallonia)	3	3	5
Czech Republic	4.5	5	-
Denmark	4	4	6
England and Wales	4	4	4
France	5	5	5
Germany	5.5	5.5	6.5
Egypt	4	4.5	4.5
Finland	5	5.5	5.5
Hungary	4	4	5
Ireland	3.5	3.5	4
Israel	4	4	4.5
Italy	4	7	7
Netherlands	4	4	5
Norway	4	4	6
Portugal	4	5.5	5.5
Scotland	4	4	4
Slovak Republic	4	5	5
Spain	3	6	6
Switzerland	3.5	4.5	6
Turkey	4	-	4.5

(Source: [5])

Based on Table 2, it is possible to see teachers teaching specialized subjects at the post-primary level often experience longer training periods. For high school, many countries require teachers to have master's degrees (Switzerland, Finland, Italy). Over the years, many countries have introduced the Bachelor-Master structure in order to provide opportunities for graduates of bachelor degrees who wish to become teachers to be able to pursue a master's degree in teacher education [5].

The master's degree in education focuses on training the capacity and qualities of the teacher, especially the leadership. Quality requirements for teachers in some countries are very high; even if they have a master's degree in education but wish to teach in high schools, a teacher certificate is required.

Teacher education generally consists of four elements: (i) knowledge of a subject; (ii) knowledge of pedagogy; (iii) skills and competencies needed to guide and support learners; and (iv) cultural and social

understanding of pedagogy. Table 3. describes the required competences of teachers.

Table 3. Required competences of teachers

Position	Competence
At teacher education insitution level	<ul style="list-style-type: none"> - Initiating and managing learning processes - Responding effectively to the learning needs of individual learners - Integrating formative and summative assessment
At classroom level	<ul style="list-style-type: none"> - Teaching in multicultural classrooms - Displaying new cross-curricular emphases - Integrating students with special needs
At school level	<ul style="list-style-type: none"> - Working and planning in teams - Conducting evaluation and systematic improvement planning - Using ICT in teaching and administration - Participating in projects between schools, and involving in international cooperation - Management and shared leadership
At the level of parents and the wider community	<ul style="list-style-type: none"> - Providing professional advice to parents - Building community partnerships for learning

(Source: [5])

3.1.3. Teacher education in Australia

Teacher education in Australia has been subject to reform since the 1980s. In Australia, teacher education in each state is completely independent. States determine models, content and requirements for teacher education. During the period of the educational method reform, the states moved to a higher stage in the 2000s, aiming to train teachers to teach in a research-oriented way [6].

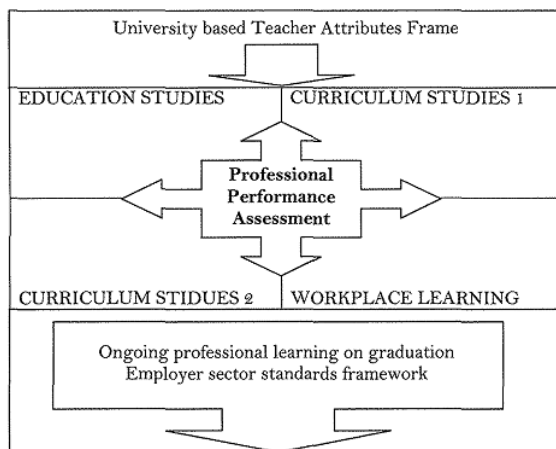


Figure 1. A typical teacher education process in Australia [6]

Teachers not only teach knowledge but also inspire students and carry out scientific research with them. In particular, at many teacher education colleges, leaders decide to change the traditional school model by building relationships with the community, learning to meet community needs, and learning from the community.

Studying the training models of some advanced countries, we can see that both models exist. Parallel models are more commonly used to train primary school teachers. Serial models are more popular for teacher education at higher levels. The advantage of parallel modeling is a high degree of integration between the two fields: professional and pedagogical knowledge. Yet its limitation is the difficulty of the input, which narrows down the way for those who already have a university degree and want to become a teacher. That is why this model is implement to train teachers for kindergartens and elementary schools.

In contrast, the transition model lacks the integration of the parallel model. It provides a more professional knowledge base. It also creates an open output for vocational education and give teachers the opportunity to do other jobs if they do not want to work

in the education sector. This model is used to train high school teachers with higher requirements for specialized knowledge and ability to guide students in scientific research.

3.2. Teacher education in Vietnam

The issue of teacher education in our country has been discussed in many conferences, seminars, especially a recent workshop entitled "Innovating teacher education to meet the requirements of education development in Vietnam" organized in 2014 at the Faculty of Education, University of Social Sciences and Humanities - Vietnam National University, Ho Chi Minh city. In spite of receiving educators' interest, the process of changing teacher education is still slow. The teacher education in Vietnam is inadequate and passive when it has to chase the renovation of the general

education program. The requirement of teacher education innovation, including ideas of innovation, awareness of pedagogical work and innovation in teacher education, is urgent.

According to the latest statistics from Bui Van Quan (2016) [7], by 2018 the number of students graduating from pedagogical schools each year to teach in primary schools is supposed to be 19,200; the numbers for middle schools and high schools are 18,700 and 23,030 respectively. Although the increase in the percentage of Student/Teacher is equivalent to that of industrialized countries, the system would not be able to recruit the number of new graduates. The superfluous numbers of graduates by 2020 will have been as follows: Primary School - 41,000, Middle School - 12,200 and High school - 16,900 [9].

Table 4. Overview of the system of training institutions and current models/methods of teacher education

<p style="text-align: center;">Quantity</p> <p>108 teacher education institutions, including: 9 Pedagogical Universities; 1 Educational University; 31 faculties (of Pedagogy) in Multidisciplinary Universities; 35 Pedagogical Colleges; 19 faculties and departments in Multi-disciplinary Colleges; and 13 schools of Pedagogy.</p>	<p style="text-align: center;">Management</p> <p>The Ministry of Education and Training manages 5 schools of Pedagogy and 3 Teacher education Colleges; the National University of Hanoi manages one school of Pedagogy; Regional universities manage 3 Pedagogical Universities; People's Committees of provinces and cities manage 35 Pedagogical Colleges, 13 schools of pedagogy; Multidisciplinary universities and colleges manage faculties of Pedagogy.</p>
<p style="text-align: center;">Distribution</p> <p>Excepting for Dak Nong province, there is at least one teacher education center in each province / city. There are 19 facilities in the Northern Midlands and Mountains; the Red River Delta has 26 teacher education institutions; North Central and South Central Coast regions has 23 institutions; Central Highlands 8 institutions; the South East has 18 institutions; the Mekong Delta has 14 institutions.</p>	<p style="text-align: center;">Model of training</p> <ul style="list-style-type: none"> - Parallel training (traditional training): basic science and specialized science, and pedagogical training. - Continuing training (2 stages): the first is basic science and specialized science training, the second is pedagogical training later. This model is implemented in 2 ways: oriented way (formula 3+1), non-oriented way (formula 4+1).

Based on the study of the situation of countries in the world and an analysis of the current status of teacher education, it can be seen that the continuing training model should be applied.

For different levels of school, pedagogical students will have to meet different requirements for knowledge,

ability, and qualification. Under our current conditions, the change of the teacher education model should be combined with a reform of the curriculum content.

As for biology, it is necessary to change natural or life sciences in an integration-oriented way in middle schools and in a differentiation-oriented way in high

schools, thus reducing knowledge load, enabling teachers to have integrated teaching, developing self-learning ability of students. In particular, the teaching time in schools should be strengthened.

Below is a proposed model for training teacher in general and biology teachers in particular:

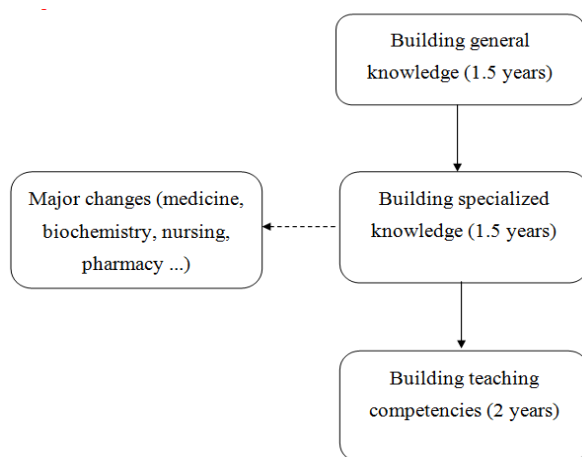


Figure 2. Model of training teachers

According to this model, students will gain general knowledge of subjects like math, physics, chemistry, ecology, physical education and general politics within 1.5 years. At the second stage, students will be able to improve their knowledge of biology and life sciences such as genetics, evolution, plants and animals. Then, students will be introduced to high schools for acquaintance and career exploration. This is an opportunity for students to see the love of work and to determine whether the career is in line with their own development.

If students do not find it interesting, they can continue to study and complete their specialized credits and transfer to other relevant bachelor and degree programs such as biomedical science, biochemistry, or nursing.

The final stage is to improve pedagogical capacity for students. At this stage, students are trained in pedagogy such as teaching methods and assessment, teaching strategies, teaching techniques. Students will be empowered to practise in high schools as teaching assistants for experienced teachers so that they can study and improve their professional capacity. Students will undergo training with an outcome-based education.

With this model, students will have many opportunities to interact with the actual pedagogical environment, and to practise with pedagogical expertise. The model also allows students to flexibly change their careers in case of unsuitability. Thus, it helps to select elite future teachers who love the job that contribute to the promotion of educational quality in Vietnam.

4. Conclusion

This article has presented a model of teacher education by reviewing relevant researches in the world and in Vietnam. The literature review indicates that teacher education has been gradually reformed across the world, from focusing on the number of teachers to meet the demand of society to improving the quality of graduated teachers. In Vietnam, the number of teachers currently is enough, but the country must transform its traditional model of teacher education, especially enhance teacher competences in the context of globalization with more flexibility. The proposed model can be a reference for educational policy makers to reform the existing teacher education.

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MÔ HÌNH CẢI CÁCH TRONG ĐÀO TẠO GIÁO VIÊN: TỪ THỰC TIỄN THẾ GIỚI ĐẾN VIỆT NAM

Tóm tắt: Nghề giáo được xem là một trong những nghề cao quý nhất tại Việt Nam thế nhưng trong những năm gần đây, tuyển sinh và đào tạo giáo viên ở nước ta đang trong tình trạng khủng hoảng bởi vì thiếu sự quan tâm của xã hội như trước đây và thiếu vị trí việc làm sau khi giáo sinh ra trường. Do đó, việc cải cách mô hình đào tạo giáo viên truyền thống, từ việc đào tạo theo số lượng sang chất lượng là điều cần thiết. Bài báo này sẽ trình bày tổng quan kinh nghiệm đào tạo giáo viên một số nước trên thế giới, từ đó phân tích các vấn đề còn tồn tại trong đào tạo giáo viên ở nước ta và đề xuất một mô hình cải cách trong điều kiện hiện nay.

Từ khóa: đào tạo giáo viên; Việt Nam; mô hình đào tạo nối tiếp.