

DEVELOPING MEASURES TO ENHANCE ELEMENTARY TEACHERS' CAPACITY FOR SEX EDUCATION

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Sex education is a fundamental human right that is crucial for healthy human development, especially for elementary school students. The effectiveness of sex education largely depends on the level of competence of the teacher. Therefore, this study utilized the Delphi method to consult with experts and achieve consensus on the capacity and measures to develop the capacity of primary school teachers in sex education. Based on the results, this study proposes several measures to enhance the capacity of primary school teachers in sex education, including assessing teacher's capacity, developing content and methods for capacity building, and promoting the importance of sex education among teachers.

Keywords: Sex; sex education; teacher's capacity for sex education; gender; primary school teachers.

1. Introduction

The 1994 International Conference on Population and Development (ICPD) in Cairo emphasized that sex education is a human right and essential for the health and well-being of individuals (United Nations, 1994; UNFPA, 2010). Therefore, children have the right to sex education, which should be recognized as a basic right along with the right to life, clean food, and education (Women, UNICEF, et al., 2018). Sex education provides access to information on psycho-physiological development, reproductive health, and how to prevent sexual abuse and exploitation. Children have the right to protection from all forms of sexual exploitation, including sexual abuse. Many countries, such as France, Luxembourg, Czechia, Norway, and Sweden, have included sex and reproductive health education as a compulsory part of their curricula (Bell, 2009; Gallard, 1991), with the Netherlands providing sex education to children as young as 4 years old (De Melker, 2015).

Vietnam has made significant changes in education to meet new demands of the social reality, especially the integration of sex education content into the curriculum as a core element in the 2018 General Education Program. Therefore, this is posing new demands on the professional competence structure of teachers. Teachers need to be trained and developed in professional competence to meet new demands in education.

Currently, the training of sex education competence for primary school teachers has been addressed through some workshops, specialized subject groups, and clusters. However, this activity is still small in scale, lacking systematicity, and the training materials do not meet the regular training needs of teachers. The measures for developing sex education competence for teachers are not synchronized. Therefore, it is necessary to conduct research to develop measures to enhance sex education competence for primary school teachers in a synchronized way, clearly indicating what primary school teachers need to be trained in to enhance sex education competence, and how they can be trained effectively.

2. Research content

2.1. The basic concepts

Sex education is an integral part of the complex of personality education issues, new human education, comprehensive human development, combining in an organic and harmonious way the richness of spirit, purity of morality, and physical perfection. Sex education is an integrated education process that encompasses the cognitive, psychological, physical, and social aspects of gender and sexuality. *Sex education is a human education process that aims to help individuals have full awareness, proper attitudes towards gender and sexual relations, cultural gender norms, and focus their activities on developing a comprehensive personality, suitable for their gender, helping them to organize their personal life and build happy families and develop society* (Bui Ngoc Oanh, 2008).

Currently, there are various views and understandings about the capacity of sex education. Some studies, such as those by Nguyen Minh Giang (2019) and Marina Carma (2011), have explored the notion that sex education capacity is a combination of individual psychological characteristics and attributes that are in line with the specific requirements of sex education activities to ensure their effectiveness. However, this capacity is not necessarily innate and must be acquired through regular work and training.

We believe that *the capacity of sex education refers to a teacher's ability to mobilize resources for the responsible and effective implementation of sex education activities for students. This involves synthesizing knowledge, skills, personal attributes, and inner potential to achieve the set educational goals under certain conditions.*

Developing teachers' capacity for sex education is a crucial activity that promotes and supports teachers to enhance their professional qualifications, enabling them to meet the increasing demands of sex education for primary school students.

2.2. Research methods

The study uses the Delphi method (Gupta & Clarke, 1996; Linstone, Turoff, et al., 1975) to consult with experts and develop a consensus of expert scientists on methods to develop the capacity of primary school teachers in sex education. This popular method has been widely used in various fields, including education (Linstone, Turoff, et al., 1975).

Invitations had been sent to 390 experts, teachers, lecturers, and individuals with experience in primary education, of which 264 people accepted to participate in the study.

Table 1: General information about the survey sample

Criteria	Category	Quantity	Ratio
Gender	Male	73	27.7
	Female	191	72.3
Educational background	University	19	7.2
	After university	206	78
	Other	39	14.8
Experience	Less than 5 years	21	8
	From 5-10 years	23	8.7
	From 10-15 years	51	19.3
	Over 15 years	169	64
Work place	Primary/Secondary School	247	93.6
	University/Research Institute	10	3.8
	Members of the Department of Education/Department of Education	7	2.6
Residence	City	69	26.1
	Town	47	17.8
	Mountainous area	148	56.1
Job position	Expert	28	10.6
	Teacher	236	89.4
Total		264	100

Based on the study by Keeney (2011), we followed the 7-step process of a Delphi study, which can be briefly described as follows:

- Step 1: Check for prerequisites. There are three recommended prerequisites that should be met before applying the Delphi technique: need, scarce resources, and time. After reviewing the research history of the problem, we found that no research in Vietnam has focused on building gender competence standards/frameworks for teachers or developing sex education competencies for primary school teachers. Furthermore, the gender competence frameworks of foreign teachers are either too abstract, too broad, or not suitable for the culture and characteristics of the developing education system in Vietnam. Our study was conducted over a period of 2 years, which is a reasonable timeframe for using the Delphi method.

- Step 2: Select experts. Following Keeney's (2011) recommendations, we selected 12 experts who fully met the recommendations of the Delphi method, including educational level, region, cultural characteristics, and gender. All experts represent different areas (i.e., Northern, Central, and Southern Vietnam), fields (i.e., experts, managers, teachers, specialists from Departments/Provincial Departments of Education and Training) with extensive experience in this area.

- Step 3: Collect expert opinions in round 1. In the first round of our study, we used open-ended questions such as “In your opinion, what competencies do primary school teachers need to meet sex education requirements for students?” and “What needs to be done to develop sex education competencies for primary school teachers?” We limited the number of responses to 5-10. The goal of this round was to obtain a system of ideas, important keywords for building the main components of sex education competencies of teachers, and how to develop sex education competencies for teachers (macro and micro). The advantage of open-ended questions compared to closed questions with options is that they do not lead or impose our thinking on experts.

After the first round, the research group collected 22 proposed elements of sex education competence from experts, as follows: Testing and evaluation (16 occurrences), Course design (12), Counseling (14), Awareness (17), Organization (11), Support (7), Gender knowledge (7), Coordination (3), Social knowledge (2), Environment (2), Knowledge dissemination (2), Friendly (2), Understanding context (1), Planning (1), Improvement (1), Law (1), Situation (1), Media (1), Development (1), Resource mobilization (1), Presentation (1), Educational psychology (1)....; 18 proposals for developing sex education competence for elementary school teachers: Competence factors (18), Professional support (17), Materials (13), Support tools and resources such as software, online materials (11), Management innovation (11), Training process (11)....

- Step 4: Qualitative analysis. Data collected from the previous round will be extracted, classified, and grouped based on meaning and frequency. Similar ideas (appearing at least 50% of the time) will be retained. The goal of this step is to select from the opinions of experts the most important elements of sex education competence and development measures for primary school teachers. The results and ranking criteria will then be sent back to the experts for consensus. The experts will confirm once again and agree on the main components of gender competence and development for teachers. The results of this step only retained the indicators that appeared at least five times in the expert opinions on the components of sex education competence, including: 1/ Gender and sex education awareness; 2/ Designing sex education plans; 3/ Organizing sex education activities; 4/ Evaluating sex education results; 5/ Consulting on sex education issues. The methods for developing sex education competence for primary school teachers include: 1/ The components of competence; 2/ Sex education materials; 3/ Processes and innovative ways to enhance sex education competence for teachers.

- Step 5: Obtaining expert opinions in round 3. After determining the components of sex education competence and methods of developing sex education competence for teachers in step 4, the research team will construct specific expressions of the components of sex education competence of teachers. This questionnaire is built based on the qualitative analysis of the previous round. We will develop the components of sex education competence, with each component constructed from 5-7 indicators. In this survey, experts will provide their opinions on the components of competence based on the Likert scale (from “strongly disagree” to “strongly agree”).

- Step 6: Evaluating consensus. We will send the basic criteria table of sex education competence components and methods of developing sex education competence for teachers to 264 teachers, experts, and administrators in different regions through an

online survey. The participating experts/teachers will rate the importance level of each index under the corresponding criteria.

● Step 7: Ranking and inference. We rank the indicators based on agreement from highest to lowest. The recommendation (Keeney et al., 2011) is that agreement should range from 51% to 80%. In our study, the minimum agreement rate for any specific item was set at 75% (Murry Jr & Hammons, 1995).

2.3. Some measures for enhancing Primary school teachers' capacity in sex education

2.3.1 Determining the goal of developing Primary school teachers' capacity in sex education

The overall objective is to enhance primary school teachers' capacity in sex education by providing them with systematic knowledge of sex education theories and methodologies, which they can apply in their teaching practices. This will enable them to design, organize, evaluate, and adjust sex education activities for primary school students effectively, as well as offer guidance and support to students on gender-related issues. Furthermore, this will help teachers develop a stronger sense of responsibility, self-learning, and professional growth by fostering innovative methods and forms of sex education in primary schools.

In terms of specific goals, developing sex education capacity for primary school teachers helps teachers be able to:

- Present the scientific basis of sex education: knowledge about gender, sex, functions, structure of reproductive organs, changes and development during puberty, social-cultural-traditional-human rights relationships, school violence, gender violence, reproductive health, etc. Explain the pedagogical requirements and characteristics, principles, methods, and ways to integrate comprehensive sex education for students in school. Apply knowledge about sex education, methods for integrating sex education in school that are suitable for educational requirements and characteristics of students.

- Design, organize, evaluate and adjust the effectiveness of sex education activities in primary schools: Study the characteristics and needs of learners; Design a plan to integrate sex education into core teaching activities and extracurricular educational activities. Organize an effective educational plan that is suitable for the target students and the educational goals; Establish a safe and positive educational environment; Develop plans, design and use tools to assess and evaluate sex education activities.

- Counsel and support students in gender-related issues: Recognize the difficulties and obstacles that students face in gender-related issues, sexual harassment and bullying, school violence, etc. Listen, share, build trust and empathy with students in problematic situations. Coordinate with relevant forces to assist, protect and implement basic rights of children.

- Enhance awareness of responsibility, self-learning, and professional development, innovate methods/forms, and apply new innovations in sex education work in schools. Teachers have the ability to self-evaluate, self-learn and self-improve in terms of character and professional skills to enhance the quality and effectiveness of sex education; actively and proactively apply new research in organizing sex education activities.

2.3.2. Enhancing the sex education capacities of Primary school teachers

Based on Circular 20/2018/TT-BGDĐT dated August 22, 2018, issued by the Minister of Education and Training regarding the Standard of Professional Competence for teachers, we believe that teachers' sex education competence is a part of their professional competence. Therefore, the development of sex education competence factors must be based on the framework of professional competence specified in the circular.

Furthermore, out of the 22 indicators proposed by school administrators, teachers, and experts, only 16 indicators were retained after the third round of the survey. All indicators were on a Likert agreement scale (4). The standard deviation ranged from 0.84 to 0.92, indicating a narrow range of deviation around the mean value. The statistical analysis software provided results that the experts agreed highly on the indicators, with an ICC score of 0.854, $F(11, 557) = 17.8$, $p\text{-value} = 1.99e-30$, and a 95% confidence interval for the ICC score ranging from 0.731 to 0.946.

Based on the data analysis, we propose the following framework for the sex education competence of primary school teachers:

Table 2: Competency framework for sex education of primary school teachers

Ability Element	Manifestations of capacity
1. Gender awareness and sex education	1.1. Understanding the biological, psychological, social aspects related to gender
	1.2. Understanding sex education theories and methods
2. Design a sex education plan	2.1. Researching learners' needs
	2.2. Identifying appropriate goals and requirements for sex education
	2.3. Selecting sex education content
	2.4. Developing sex education plans
	2.5. Preparing conditions and means for sex education
3. Organize sex education activities	3.1. Conducting educational activities according to the established plan
	3.2. Guiding and managing individual/group activities to achieve educational objectives
	3.3. Using equipment, software, materials, and aids to support sex education activities
4. Sex education assessment test	4.1. Developing appropriate evaluation plans that match the educational objectives and learners
	4.2. Designing and using appropriate methods and tools to evaluate sex education activities
	4.3. Using learners' learning outcomes to adjust, orient, and encourage them
5. Counseling and support for gender issues	5.1. Connecting and empathizing with students' difficulties
	5.2. Providing support and advice to help students overcome obstacles and difficulties
	5.3. Coordinating with other educational forces, parents, and students to support and help students.

2.3.3. *Developing training content to enhance teachers' capacity in sex education*

In order to improve the capacity of teachers in sex education, a proposed capacity framework for sex education and the content of sex education for high school students (aged 6-16 years old) recommended by UNESCO to be integrated into the general education curricula of other countries should be considered.

We suggest the following contents and requirements to be achieved in fostering and developing the capacity of sex education for primary school teachers as follows:

Table 3: *Content of developing capacity in sex education for Primary school teachers*

Content Circuit	Requirements to be met
Basic knowledge of Sex Education	<p>Content 1. Basic issues on gender: Teachers will able to</p> <ul style="list-style-type: none"> • Present the concepts, characteristics, and some common issues related to gender, sex, physical and mental health of adolescents. Identify the features, needs, and relationships in family, friendship, and love. Describe the negative/positive factors influencing the maintenance and development of relationships. • Recognize the values that contribute to shaping the understanding of gender and sexuality. State the basic human rights in general and children's rights in particular. Indicate the cultural and traditional influences on gender and sexual beliefs. • Acknowledge the fundamental issues on gender, gender stereotypes, gender equality, and gender norms. State the causes of gender-based violence and gender inequality. • Explain the nature, skills, and basic living skills involved in addressing gender inequality and sexual abuse. • Describe the human anatomy characteristics, reproductive and developmental mechanisms, and basic physical and mental changes during puberty. • Analyze the issues related to sexual and reproductive health, pregnancy, contraception, reproductive diseases, and sexually transmitted infections (STIs). <p>Content 2 . Issues on sex education : Teachers will able to</p> <ul style="list-style-type: none"> - Define the concept, nature, and characteristics of sex education activities. - Describe the basic requirements for ethics and capacity in sex education for primary school teachers. - Explain the objectives, tasks, content, and requirements for sex education for primary school students. - Analyze the methods and organization of sex education for primary school students. - Analyze the impacts on sex education for primary school students
Methods of organizing sex education for	<ul style="list-style-type: none"> - Present the process of integrating and integrating content Sex education in school curriculum. - Design an integrated education plan that integrates sex education.

Content Circuit	Requirements to be met
primary school students	<ul style="list-style-type: none"> - Use effective methods, means, and forms of sex education for primary school students. - Effectively apply IT application in organizing sex education activities for primary school students. - Design and use tools to test and evaluate results of sex education.
Counseling and support for gender issues	<ul style="list-style-type: none"> - Present the roles, tasks and ways of counseling to support gender and gender issues for students. - Identify and detect abnormal signs in students with difficulties and problems related to gender and sexuality. - Counseling and support on gender issues for primary school students. - Coordinate with other educational forces in supporting, counseling and helping students with problems and difficulties related to gender violence, sexual abuse, social evils...

Some topics on fostering and developing the capacity of sex education for primary school teachers.

Table 4: *Topic names for developing capacity in sex education for Primary school teachers*

Names of training topics	Requirements to be met	Description of thematic content
Topic 1: Some general issues about gender	<ul style="list-style-type: none"> -Aware of some basic concepts: gender, gender, etc. Describe the biological characteristics of male and female reproductive organs. -Aware of some children's rights . - Some issues related to sex and reproductive health are presented: characteristics of puberty, same-sex and opposite-sex friendship relationships...; - Identify forms of sexual harassment and school violence, .. - Analyze the causes, ways to prevent sexually transmitted diseases... - Present the roles, meanings and duties of consultation and counseling on gender and gender issues. 	<p>Content 1 . Puberty characteristics;</p> <p>Content 2 . Friendship, love, marriage-family;</p> <p>Content 3 .Sexual Abuse</p> <p>Content 4 . School violence</p> <p>Content 5 . Counseling and counseling on gender and gender issues.</p>
	<ul style="list-style-type: none"> - Present the needs of primary school students on gender and gender issues. - Analyze: objectives, requirements and content of sex education for primary school students . 	<p>Content 1 . Gender and sex education institutions for primary school students .</p>

Names of training topics	Requirements to be met	Description of thematic content
Topic 2. Content and methods of sex education for primary school students	- Draw an overview diagram of the main forms and methods in sex education for primary school students. - Presenting forms and requirements in the assessment of sex education results for primary school students c.	Content 2. Objectives, requirements and principles of sex education; Content 3 . Methods and forms of gender and sex education for students.
Theme 3. Designing and organizing sex education for primary school students	- Analyze the characteristics of subjects and educational activities. - Select some contents of educational subjects and activities to integrate sex education and gender equality for primary school students. lesson plans and educational plans that integrate sex education and gender equality in accordance with the cognitive characteristics of students.	Content 1 . Practice designing teaching plans that integrate gender and sex education for primary school students . Content 2. Practice designing an educational plan that integrates gender and sex education for primary school students . Content 3. Practice organizing sex education for primary school students . Content 4 . Skills in counseling and counseling on gender and gender issues.

2.3.3. Developing the capacity development process of Primary school teachers on sex education

From a teacher's perspective, self-study and self-improvement in sex education has two important meanings. Firstly, it helps teachers to assist their students in achieving their learning goals, which in turn helps teachers to achieve their educational objectives. Secondly, it is a means for teachers to assert themselves before their students, parents, colleagues, and administrators. This is a legitimate motivation, and teachers become even more effective when they are recognized and given opportunities to fulfill their aspirations.

The management board plays a crucial role in arousing the feelings of responsibility and sense of mission among teachers towards their school and the collective. In addition, the management board should provide timely, transparent, and equitable recognition, encouragement, and rewards to teachers. Furthermore, creating a healthy, democratic environment that encourages emulation, learning, and development is essential. When teachers work in an environment that promotes democracy and fosters an atmosphere of collaborative learning and practice, they are motivated to engage in self-study and self-improvement, and to assert themselves in their work.

To effectively develop the capacity of primary school teachers in sex education, it is necessary to:

Step 1: Identifying training goals and self-improvement

Self-study and self-improvement are essential for teachers to improve their skills and knowledge in various domains. As A. Einstein stated, “*The formulation of a problem is often more important than solving it because solving is only a matter of skill or experience.*” Thus, identifying the problem that needs self-study and self-improvement is crucial for effective learning. Facilitators can guide teachers on how to analyze and select practical problems for themselves, and evaluate whether the problem is feasible and appropriate. Furthermore, creating a competitive learning atmosphere in the school can motivate teachers to engage in self-improvement.

Step 2: Developing a training/self-improvement plan

After identifying the problem that requires self-study and self-improvement, teachers need guidance on making specific and flexible plans. These plans should include objectives, content, timeframes, and order of implementation steps. To select the appropriate method and form of organizing the training/self-training, it is necessary to consider the content of the training/self-improvement program, as well as the results of surveys on training needs and the current status of training programs in the pedagogical school. Methods and forms of organizing training/self-training must aim to promote the role of teachers in self-improvement.

Step 3: Mobilize resources and organize training/self-training activities.

Mobilize experienced experts in program development as trainers for training/self-training activities. Focus on developing training/self-training materials for teachers, including online, direct, and indirect training materials. Concentrate financial resources to support training activities that enhance teaching capacity. Strengthen infrastructure to support the development of training/self-training programs.

Building motivation and drive for learning and self-training in sex education, like any genuine activity, is driven by motivation. When it comes to motivation, we often refer to A.Maslow's hierarchy of needs with five levels, including “the need to be respected, the need for self-affirmation.”

+ Prepare and disseminate knowledge and self-training materials specifically for teachers to refer to. Materials can be the result of scientific research or practical experience of teachers in the teaching process.

+ Organize specialized activities through collective activities of the school's pedagogical council or professional groups so that teachers can share difficulties, exchange experiences in self-learning, self-training to improve their sex education capacity to meet practical requirements.

+ Encourage teachers to write innovative experiences or carry out pedagogical research topics to enhance their capacity for self-learning, self-training, and spread to other colleagues.

Step 4: Evaluation of training/self-training results

Evaluating the outcomes of training/self-improvement is crucial in motivating teachers to participate in enhancing and developing their teaching abilities. Therefore, the assessment tool utilized must be closely aligned with the objectives, content, and

curriculum of the refresher/self-education program. The evaluation method and format must ensure objectivity, accuracy, and fairness.

4. Conclusion

The effectiveness of sex education for students in primary schools is largely determined by the teachers who deliver it. To meet the practical requirements and promote self-training and self-improvement of professional capacity, teachers must be aware of what they need to accumulate, to what extent, and how they can improve their sex education capacity to be implemented and innovated. Therefore, it is crucial to establish a capacity framework and measures to enhance the capacity of primary school teachers in sex education.

Initial research on building a capacity framework and measures to develop the capacity for sex education primary school teachers is based on the widely applied Delphi method, a consulting expert method, particularly in the field of education. However, a limitation of the Delphi method is that it cannot determine the correctness or falseness of the proposed alternatives, and our recommendations are solely based on expert consensus. Further research is required to test the feasibility of the framework and measures in practice.

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TÓM TẮT

MỘT SỐ BIỆN PHÁP PHÁT TRIỂN NĂNG LỰC GIÁO DỤC GIỚI TÍNH CHO GIÁO VIÊN TIỂU HỌC

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Giáo dục giới tính cho học sinh được xem là một quyền của con người, rất cần thiết để con người phát triển khoẻ mạnh. Hiệu quả công tác giáo dục giới tính cho học sinh tiểu học được quyết định chủ yếu bởi trình độ năng lực của giáo viên. Nghiên cứu này sử dụng phương pháp Delphi để xin ý kiến các chuyên gia sự đồng thuận và nhất trí về năng lực, các biện pháp phát triển năng lực giáo dục giới tính cho giáo viên tiểu học. Trên cơ sở đó, nghiên cứu đề xuất một số biện pháp để phát triển năng lực giáo dục giới tính cho giáo viên tiểu học bao gồm: xác định khung năng lực giáo dục giới tính của giáo viên, nội dung, cách thức phát triển năng lực giáo dục giới tính cho giáo viên tiểu học.

Từ khóa: Giới tính; giáo dục giới tính; năng lực giáo dục giới tính của giáo viên; giáo viên tiểu học.