



A development of the training curriculum for learning design to promote sexuality education awareness for students of teachers at the high school level

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Abstract

The purpose of this research aimed to study develop a curriculum and evaluate the effectiveness of a curriculum for learning design promoting sexuality education awareness. The sample used in the research consisted of 8 high school teachers from 8 subject groups in semester 1 of the academic year 2022 at Kowit Thamrong School, Chiang Mai. The research tools consisted of courses and user manuals, as well as a teacher competency assessment form and Satisfaction Survey Form. The data were analyzed by finding the mean and standard deviation. Together with the content analysis, Analysis data by Descriptive statistics and Content Analysis. The research results were found as follows; 1. The training curriculum development model to promote teachers' awareness of sexuality education consisted of 4 components: (1) curriculum principles, (2) objectives, (3) curriculum development process, and (4) measurement and evaluation. 2. During the curriculum assessment, it was established that educators had a dual focus. Firstly, they concentrated on facilitating learning methods that highlighted effective educational approaches (2.1). Secondly, they required a learning design that emphasized observation (2.2). This approach aligns with an educational model wherein curriculum development nurtures learners to comprehend the model in terms of perspective and efficiency.

Keywords: Adolescents, Awareness, Curriculum development, Design teaching, Learning design, Sexuality education, Training curriculum.

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Contribution of this paper to the literature

Integrating Comprehensive Sexuality Education (CSE) into teaching and learning, with a strong emphasis on empowering teachers to design integrated learning experiences focused on CSE, has demonstrated that teachers, acting as 'Learning Managers,' play a vital role in helping students gain a correct understanding and awareness of their sexuality.

1. Introduction

UNESCO (2018) recognizes the importance of teaching Comprehensive Sexuality Education (CSE) to enable children and youth to learn about sex and positive relationships, thus helping achieve sustainable development goals. "Sexuality education" is defined as a comprehensive process encompassing physical and mental development, physiological functions, care and hygiene, attitudes, values, relationships, sexual behavior, and social and cultural dimensions that impact sexual lifestyles. This definition aligns with the Ministry of Education (2015) description of "sexuality education" as a process that fosters the development of knowledge, thoughts, attitudes, emotions, and skills necessary for individuals to pursue a happy and safe sex life while responsibly developing and maintaining relationships with others. Adolescence is a crucial period during which individuals should gain a deep understanding of gender and sexuality. As sexual behavior and sexual orientation become pertinent topics, teenagers naturally develop an interest in the opposite sex and experience sexual feelings. Adolescents are characterized by curiosity, a desire to explore, and the expression of strong emotions, often accompanied by an ongoing process of self-discovery.

However, the understanding of gender, especially in an environment with provocative factors and situations, may not always be accurate. Consequently, teenagers may be at risk of engaging in inappropriate sexual behavior. Therefore, teachers play a pivotal role in guiding and educating teenagers on these matters, making them essential figures in shaping the sexual education of adolescents. Educational institutions must provide comprehensive support to teachers to ensure they fully and accurately understand sexual orientation. These institutions, which serve as critical sources of learning, have the potential to educate not only teenagers but also teachers themselves.

Speaking as a teacher, we recognize the significance of these issues, especially for educators who bear the primary responsibility for organizing students' learning experiences. Gender plays a crucial role in shaping educational institutions, directly impacting curriculum development and activity planning. Consequently, promoting knowledge about sex education is imperative, necessitating schools to integrate this knowledge into their curricula and learning activities for students. Providing comprehensive sexuality education is crucial to prepare young people to understand this matter. It equips them with the knowledge and skills needed to navigate a healthy sexual lifestyle as they transition into adulthood. This education encompasses various aspects, including helping them learn and develop their capacity for caring for others, promoting non-violence and consent in relationships, and fostering the development of fulfilling, consensual, and respectful sexual relationships. Furthermore, sexual education should be an integral part of the curriculum design to mitigate the adverse effects of sex-related issues, such as unplanned pregnancies, sexually transmitted diseases, Human immunodeficiency virus: HIV, and sexual violence (Path, 2020). Organizations, such as Path, are driving projects aimed at promoting sex education for youth. These projects highlight the challenge of integrating sex education into educational management. To address this challenge, teachers should receive support in organizing a learning process that facilitates a thorough understanding of sex education. Kowit Thamrong Chiang Mai School is an educational institution that provides instruction up to the high school level, particularly for students in their teenage years, preparing them for higher education and global citizenship with a focus on sexual health. Therefore, teachers in this role must be well-prepared. They serve as crucial "learning organizers" who enable students to comprehend sexuality accurately and responsibly. To achieve this, the researcher has developed a training curriculum aimed at promoting awareness of sexuality education among high school-level teachers. This curriculum equips teachers with the knowledge and skills to design learning activities that provide teenagers with accurate and comprehensive information about human sexuality. Topics covered include growth and development by age, fertility, anatomy of the body, managing sexual feelings, masturbation, family life, pregnancy, childbirth, child care, sexual response, gender identity, birth control, sexual violence, Immune deficiency syndrome: AIDS, and other sexually transmitted diseases.

The curriculum emphasizes the provision of open and safe opportunities for teenage learners to ask questions, explore, exchange ideas, and evaluate their own and societal attitudes toward sex. It aims to cultivate an attitude that is open, accepting of differences, and respectful of gender rights and freedom. It encourages students to refrain from hasty judgments and to value various aspects of themselves and their families. Additionally, the curriculum helps students develop critical thinking skills regarding their responsibilities to themselves, their families, and others. It equips them with essential skills for building and maintaining healthy relationships, including communication, decision-making, expressing needs, confirming opinions, negotiation, conflict resolution, and creating and sustaining satisfying friendships. Furthermore, the curriculum empowers students to solve problems and seek help when needed, fostering a sense of responsibility in matters related to relationships and sexual encounters, both with themselves and with others, including decisions regarding sexual activity, disease prevention, and consent. It emphasizes the importance of teachers being well-informed and understanding the subject matter thoroughly before conveying awareness of sexuality education to students in a clear, comprehensive, accurate, and appropriate manner.

2. Research Objectives

1. Develop a curriculum for training in learning design aimed at promoting awareness of sexuality education among high school students.
2. Assess the effectiveness of the learning design training curriculum in promoting awareness of sexuality education among high school students.
 - 2.1. Evaluate teachers' ability to create learning materials that promote awareness of sexuality education for high school students.
 - 2.2. Measure teachers' satisfaction with the learning design aimed at promoting awareness of sexuality education for high school students.

3. Literature Review

3.1. Curriculum Development Concept

Educators, including Taba (1962); Beauchamp (1981); Wongyai (1982); Print (1993); Oliva (2009); Wiles (2009); Kunarak (2015); Sutthirat (2016); Chookhampaeng (2016) and Grathorn, Boschee, Whitehead, and Boschee (2019), have synthesized the concept that a curriculum is a plan or framework of knowledge and experiences developed to facilitate learning. This curriculum specifies the learning goals or objectives, teaching, and learning activities through which learners acquire knowledge, abilities, skills, attitudes, and characteristics. These elements are evaluated to assess student development in line with the predetermined learning objectives. Key components of the curriculum include 1) principles and rationale, aims, and objectives, 2) essence and content, 3) activity organization, and 4) measurement and evaluation.

3.2. Concepts about Sexuality Education

Organizations involved in sexuality education, such as the Student Protection Task Force Center (2015) and UNESCO (2018), describe sexuality education as a comprehensive learning process encompassing physical, mental, physiological, and healthcare aspects, attitudes, values, relationships, sexual behavior, social dimensions, and cultural influences that impact sexual orientation. It involves developing knowledge, thoughts, attitudes, emotions, and skills necessary for individuals to lead fulfilling and safe lives while responsibly nurturing and sustaining relationships with others. Key components of sexuality education include understanding the true nature of human sexuality, promoting knowledge, and understanding of gender equality, gender roles, cultural norms, sexual health, and overall reproductive health among children and youth. This education addresses issues like sexually transmitted diseases, considering the learners' age, and encourages the active involvement of professionals, parents, family members, community members, and teachers who foster positive relationships with students. These educators provide opportunities for students to express themselves without judgment.

4. Methods

For this research, the researcher employed a combination of research and development methods, integrated with the curriculum development model synthesized from concepts and theories.

The research utilized a mixed-method research design, specifically employing a Convergent Parallel Design with a sample group consisting of high school teachers from Kovitthamrong Chiang Mai School. The study followed a single-group research design to measure post-experiment results, utilizing the "One Shot Case Study" approach. The research operations were divided into four steps, as outlined below.

Step 1: Research: R1 involved studying and analyzing basic data. This phase included the examination of research documents related to training curriculum development and the Sexuality Education Policy. Additionally, the researcher conducted interviews with relevant teachers and gathered student opinions as data to create a preliminary framework for the training course on learning design aimed at promoting awareness of Comprehensive Sexuality Education (CSE). The sample groups used in the survey of knowledge about sexuality education included:

10 high school teachers representing all 8 subject groups.

1 high school academic head.

30 high school students.

Furthermore, an analysis of the 2008 Basic Education Curriculum (Revised Edition 2017) was conducted for the 8 learning subject groups, including the Thai language, mathematics, health and physical education, science and technology, career education, foreign languages, art, social studies, and religion and culture. This analysis aimed to integrate knowledge on awareness of sexuality education for high school students into a curriculum framework.

Step 2: Development: D1 involved the development and quality assessment of the training curriculum. In this phase, experts in curriculum and teaching (3 experts), sexuality education (1 expert), and measurement and evaluation (1 expert) were engaged to develop and validate the curriculum.

Step 3: Research: R2 encompassed the implementation of the curriculum. After the curriculum passed the quality inspection, it was implemented by organizing training sessions on learning design to promote awareness of sexuality education for high school teachers. This training involving eight grade 10 teachers. And utilized the BAPR (Brief, Analyze, Practice, Reflect) training process. A single-group research design was employed to measure the outcomes after the training, utilizing the "One Shot Case Study" approach. This phase aimed to assess the teachers' ability to design learning materials that promote awareness of sexuality education for high school students.

Step 4: Development: D2 involved an evaluation of the curriculum's effectiveness. This evaluation considered two key aspects:

Teachers' ability to design learning materials that promote awareness of sexuality education for their high school students.

Teachers' satisfaction with the learning design that promotes awareness of sexuality education for high school students.

Throughout the research process, the researcher systematically carried out each step, collecting both quantitative and qualitative data from various sources. The findings were then synthesized. The research operations encompassed both research and development. Diagram 1 provides detailed information about the research operations.

5. Results

The research presents the research results, which are divided into two parts as follows:

Part 1: Curriculum Development Results.

The findings related to curriculum development reveal that the components of the training curriculum designed to promote awareness of sexuality education among high school teachers have essential concepts. These concepts can be summarized into four key points:

Principles of the curriculum.

Objectives.

Curriculum development steps.

Measurement and evaluation.

These concepts were applied in organizing training activities using the BAPR format, which comprises four steps:

Step 1: Exchange knowledge and brainstorming (B: Brainstorming).

Step 2: Hands-on learning design (A: Acting & Practicing).

Step 3: Observation and data collection (P: Profiling & Observe).

Step 4: Evaluation of the design and implementation (R: Reflecting).

This curriculum is considered to be of high quality and practical for use with the sample group. An example learning unit developed by the researcher is provided in detail as follows:

Table 1. Learning unit: "Learning design to promote awareness of sexuality education for high school students".

Objectives	Content	Activities	Media/Learning resources
1. Teachers have knowledge Understanding of learning design and CSE 2. Teachers can design learning that promotes awareness of sexuality education for high school students.	1. How to integrate content and teaching methods 2. Methods for designing integrated learning with course indicators 3. How to organize integrated learning activities 4. Sexual education for students at the high school level 5. Creating awareness about sexuality education"	Step 1: Exchange knowledge and brainstorming (B: Brainstorming). 1.The lecturer assesses prior knowledge related to learning design and encourages research on the topic of educational trajectories. 2.The course aims to teach and explore fundamental knowledge about learning design for the purpose of designing and researching learning methods that promote research. This includes knowledge about educational culture, as well as knowledge and understanding of nutritional modes. 3.The lecturer imparts knowledge on education, learning design, and educational trajectories based on content determined by academic experts. All students within the group participate in this learning experience, which stimulates cognitive processes. Step 2: Hands-on learning design (A: Acting & practicing). Teachers possess an understanding of the principles, knowledge, and skills required for designing Comprehensive Sexuality Education (CSE) and promoting awareness of CSE. Teachers apply this understanding by designing learning materials and creating activity plans that promote awareness of sexuality education collaboratively. Step 3: Observation and data collection (P: Profiling & observe). 1.Consider the suitability of organizing collaborative learning activities by exchanging and evaluating plans for activities that promote awareness of sexuality education. 2.Offer suggestions on additional engaging topics and collectively assess the strengths, weaknesses, and feasibility of implementing these learning designs. Step 4: Evaluation of the design and implementation (R: Reflecting). 1.Summarize information and recommendations collectively to reflect on the outcomes of learning design operations, identifying strengths, highlights, weaknesses, and limitations. 2.Collaboratively establish learning design guidelines for promoting awareness of sexuality education among high school students and implement them according to the designed plan.	1. Lecturer 2. Sample learning plan 3. Videos about sexuality education 4. CSE manual for secondary school students 5.Smartphone devices 6.Internet 7. Information regarding basic knowledge of high school students regarding sexuality education.

Part 2: Results of Evaluating the Effectiveness of Using a Learning Design Training Curriculum to Promote Awareness of Sexuality Education for High School Students by Teachers. These results are presented in [Table 1](#) and [Table 2](#) as follows:

From [Table 2](#), it is evident that teachers' ability to design Comprehensive Sexuality Education (CSE) learning for high school students is excellent (\bar{x} = 4.58, S.D.= 0.83). The following key points should be noted:

1. Setting clear learning objectives for students.

2. Creating a systematic learning plan that integrates consistency in both content and teaching methods, promoting awareness of CSE.

3. Demonstrating a high level of proficiency in designing learning to promote awareness of CSE, with all three items scoring at an excellent level (\bar{x} = 5.00, S.D.= 0.00).

4. The design allowing students to participate in learning activities also performed at an excellent level (\bar{x} = 4.50, S.D.= 0.50).

5.The design of learning activities was deemed appropriate, scoring at a very good level (\bar{x} = 4.38, S.D.= 0.48).

6. Designing measurement and evaluation methods appropriate to the content, learning activities, and students achieved a good level of proficiency ($\bar{x}= 3.38$, S.D.= 0.48).

Table 2. Results of assessing teachers' abilities in learning design after organizing training activities.

Evaluation list	(\bar{x})	(S.D.)	Results
1.Establish learning objectives for students that emphasize awareness of sexuality education.	5.00	0.00	Excellent
2.Develop learning activities suitable for students.	4.38	0.48	Very good
3.Offer opportunities for students to engage in learning activities.	4.50	0.50	Excellent
4.Create a systematic learning plan that ensures consistency in content, teaching methods, and the promotion of awareness of sexuality education.	5.00	0.00	Excellent
5.Design measurement and evaluation methods appropriate for the content, learning activities, and students.	3.38	0.48	Good
6.Assess the level of competence in designing learning to promote awareness of sexuality education.	5.00	0.00	Excellent
Individual totals /Mean and standard deviation of individual totals	4.58	0.83	Excellent

Table 3. Shows teachers' satisfaction with the use of the curriculum.

Section	Assessment list	(\bar{x})	(S.D.)	Satisfaction level	Sequence
Satisfaction with the course					
1	This course benefits educational institutions, teachers, students, and related stakeholders.	5.00	0.00	Very satisfied	1
2	The curriculum should undergo continuous development and implementation.	4.63	0.74	Very satisfied	3
3	The curriculum should be integrated into educational institutions.	4.50	0.76	Very satisfied	4
4	The course employs suitable methods for evaluating its effectiveness.	4.13	0.64	Satisfied	7
Average satisfaction with the course		4.57	0.54	Very satisfied	(2)
Satisfaction with learning design training activities					
5	The content is sequential, appropriate, and encompasses the principles of writing a learning plan that promotes awareness of sexuality education.	5.00	0.00	Very satisfied	1
6	Training activities aim to enhance teachers' ability to design learning.	4.75	0.46	Very satisfied	2
7	Training activities help teachers become aware of the elements in learning design.	5.00	0.00	Very satisfied	1
8	Training activities enable teachers to establish step-by-step guidelines for designing learning and promoting awareness of Comprehensive Sexuality Education (CSE) effectively.	5.00	0.00	Very satisfied	1
9	Training activities assist teachers in selecting appropriate media for the activities and the students' levels.	4.63	0.74	Very satisfied	3
10	Training activities teach teachers how to measure and evaluate students effectively.	4.00	0.52	Satisfied	8
11	The lecturer demonstrates a strong ability to introduce new techniques.	4.50	0.75	Very satisfied	4
12	Training activities create opportunities for teachers to exchange knowledge extensively.	4.25	0.71	Satisfied	6
13	The training atmosphere is conducive to effective learning.	4.38	0.52	Satisfied	5
Average satisfaction with learning design training activities		4.59	0.33	Very satisfied	(1)
Overall teacher satisfaction level		4.58	0.43	Very satisfied	

From Table 3, it is evident that teachers' satisfaction with the utilization of the learning design training curriculum to promote awareness of Comprehensive Sexuality Education (CSE) among high school students, in general, encompasses two aspects. The satisfaction level was at its highest ($\bar{x} = 4.58$, S.D. = 0.43). Overall satisfaction with the organization of training activities, learning design, and related aspects ranked first ($\bar{x} = 4.59$, S.D. = 0.33), while overall satisfaction with the training course on learning design to promote awareness of sexuality education for high school teachers' students ranked second at the highest level ($\bar{x} = 4.57$, S.D. = 0.54).

6. Discussion and Conclusion

6.1. Discussion

The research on the development of a learning design training curriculum to promote awareness of Comprehensive Sexuality Education (CSE) for high school teachers' students demonstrates concrete efforts to integrate sexual education into every educational subject area. The research results can be discussed as follows.

The curriculum development process involves organizing training activities using the BAPR format, consisting of four steps: Step 1 - exchanging knowledge to brainstorm (B: Brainstorming), Step 2 - hands-on learning design (A: Acting & Practicing), Step 3 - observing and collecting data (P: Profiling & Observe), and Step 4 - evaluating the design and implementation (R: Reflecting). This method is systematically developed and implemented, with an emphasis on designing learning that integrates content from all eight subject groups in accordance with the Basic Education Curriculum of 2008 (revised in 2017). It incorporates knowledge about sexuality education and life skills related to sex, ensuring that secondary school students are well-informed about topics relevant to events and situations occurring in society and daily life. Importantly, it emphasizes teachers' understanding of designing CSE learning through the use of various activities, media, and techniques aimed at making students aware of sexuality education. Cooperative learning methods serve as the foundation for training activities, fostering a friendly learning atmosphere where teachers can freely exchange knowledge. This exchange is a crucial aspect that enables teachers to design and implement effective learning activities. This approach aligns with [Sotayaphet \(2017\)](#), who highlighted

the importance of group collaboration in training, as it contributes to the success of the educational process. Similarly, Dechakub (2017) emphasized the significance of knowledge exchange and reflection during critical stages of training activities, resulting in students' ability to generate knowledge, meaningful learning, and skill development. These processes significantly enhance the ability to design effective learning experiences and apply them to real-life situations. One of the key highlights of this research is the integration of CSE into teaching and learning, with a strong focus on enabling teachers to design integrated learning experiences that raise awareness of all eight CSE groups among students. The researcher ensured that this approach was applicable to all learning groups by aligning learning outcomes, content, and sexuality education indicators. The researcher selected a sample group through purposive selection, ensuring that participants had a similar baseline of knowledge. Specifically, they were teachers who had not graduated in education and had less than three years of teaching experience at the high school level. Furthermore, the researcher placed significant emphasis on organizing training activities that encouraged knowledge exchange in various ways. Given that teachers belong to different subject groups, this approach allowed for diverse perspectives. The researcher's emphasis on these points is in line with Manuwong (2020) conditions for organizing training activities, which emphasize the need to consider the feasibility and appropriateness of content integration and the sample group's knowledge base, including their educational background and teaching experiences.

6.2. Conclusion

The training course on learning design, aimed at promoting awareness of sexuality education among high school teachers, has been successfully developed and assessed for quality. It is designed to enhance the capabilities of high school teachers in creating learning experiences that raise students' awareness of sexuality education. The curriculum development model encompasses four key elements: principles of the curriculum, objectives, curriculum implementation, and measurement and evaluation of the learning design training curriculum. It follows the BAPR format, with the following steps: Step 1 - exchanging knowledge to brainstorm (B: Brainstorming), Step 2 - practicing learning design (A: Acting & Practicing), Step 3 - observing and collecting data (P: Profiling & Observe), and Step 4 - evaluating the design through implementation (R: Reflecting). Teachers collaboratively establish guidelines for learning design that promote sexuality education awareness among high school students and put them into practice.

The effectiveness of the curriculum is evident in two aspects: 2.1) Teachers exhibit an excellent ability to design learning experiences that foster awareness of sexuality education among high school students. 2.2) Teachers express a high level of satisfaction with the curriculum's design, which promotes awareness of sexuality education among high school students. The development of such a curriculum plays a pivotal role in enhancing teachers' understanding of gender from various perspectives, a crucial aspect of preparing students to become informed global citizens.

7. Suggestions

From the research results, the researcher has suggestions as follows:

1. There should be research on developing a learning design training curriculum to promote awareness of sexuality education for teachers' students at the high school level. By considering environmental variables of society and community, upbringing and the economic status of the family.
2. Research should be conducted on learning design training courses to promote awareness of sexuality education for teachers' students at the high school level. in activities that can be used with students in other grades.
3. Research should be conducted on new perspectives for promoting awareness of sexuality education for learners in today's volatile world. and changing rapidly.
4. There should be research on learning management models that promote awareness of sexuality education for students at the high school level. To obtain a model of learning styles that can be used to develop students concretely.

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