

ANALYZING THE CURRICULUM DEVELOPMENT PROCESS: IMPLICATIONS FOR SEXUAL AND REPRODUCTIVE HEALTH EDUCATION CURRICULUM IN CHAD

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Abstract

Sexual and reproductive health education (SRHE) curriculum plays a crucial role in shaping sexual behaviors and promoting sexual and reproductive health (SRH) literacy skills among adolescents. However, developing and implementing this curriculum is a more complex and challenging task for health educators. Therefore, this paper aimed at reviewing and comparing the stages of some curriculum development models to provide a framework for developing SRHE curriculum in Chad. The analyzed models play a significant and different role in the process of designing a curriculum. Tyler pioneered four fundamental questions in 1949 to shape curriculum. The models of Taba, Wheeler, Nicholls and Richards are a modified version of Tyler. While Taba followed a grass-root approach starting from identification of learners' needs and ending with evaluation, for Wheeler, Nicholls and Richards, curriculum development is a continuous and never ended process. Besides, a model was proposed based on these models to approach SRHE curriculum in Chad. The paper concludes although these models have strengths and limitations and offer different ways for approaching a curriculum, the proposed cyclical model provides a rigor, flexible and reliable guide to activities related to SRH that educators could undertake.

Keywords: Curriculum development, curriculum theory, sexual and reproductive health education, Chad

Résumé

Le curriculum d'éducation à la santé sexuelle et reproductive (ESSR) joue un rôle crucial dans le changement des comportements sexuels et la promotion des compétences de littératie en santé sexuelle et reproductive (SSR) chez les adolescents. Toutefois, le développement et l'implémentation de ce curriculum est plus complexe

et une tâche difficile pour les éducateurs en santé. Ainsi, ce travail a pour but d'évaluer et comparer les étapes de quelques modèles du développement du curriculum afin de fournir un cadre pour le développement du curriculum d'ESSR au Tchad. Les modèles jouent un rôle un rôle significatif et différent dans le processus de conception d'un curriculum. Tyler a fourni quatre questions fondamentales en 1949 pour façonner le curriculum. Les modèles de Taba, Wheeler, Nicholls et Richards sont une version modifiée du modèle de Tyler. Alors que Taba a suivi une approche de base commençant par l'identification des besoins des apprenants et finissant par l'évaluation, pour Wheeler, Nicholls et Richards, le développement du curriculum est un processus continu et sans fin. De plus, un modèle a été proposé sur la base de ces modèles pour concevoir le curriculum d'ESSR au Tchad. Ce travail conclut bien que ces modèles ont des forces et limites et offrent différentes manières de concevoir un curriculum, le modèle cyclique proposé offre une orientation rigoureuse, flexible et fiable pour les activités liées à la SSR que les éducateurs pourraient entreprendre.

Mots clés : Développement du curriculum, théorie du curriculum, éducation à la santé sexuelle et reproductive, Tchad

Introduction

The 21st brought many challenges to youths around the globe among which there is sexual and reproductive health (SRH) issues which require to be taught in schools through appropriate curricula in order to develop SRH literacy skills among adolescents. In order to respond to adolescents' needs for information and skills to protect their SRH and lives, the global community has taken a series of measures to set a policy framework for such education (Haberland and Rogow). Among these measures is the establishment of the Program of Action during the 1994 International Conference on Population and Development, which calls on governments in the world to provide SRH education to promote well-being of young people and specifies key features of such education (United Nations). However, around the world, the development and implementation of SRHE curriculum are challenging due to numerous religious, sociocultural, political and institutional forces (Bator et al.; Sekhar et al.). For example, in Chad, the introduction of SRHE into school curricula and its delivery to learners, which can help to accelerate the attainment of universal health coverage and sustainable development goals by 2030, remain problematic, controversial and an unresolved issue among educators, policy-makers and stakeholders. As a result, many key topics related

to sexuality that could help children and adolescents developing SRH literacy skills were omitted from school textbooks (Laoungang and Wamba; Laoungang). Laoubaou et al. argued that educators in Chad, under the influence of sociocultural constraints, considered sexuality as a taboo issue and were afraid that information related to sexuality leads children, especially pubescents and adolescents, to sexual practices. This reinforces dominant social constructions based on age that children and young adolescents lack the intellectual abilities and emotional maturity to know about sexual health issues. Besides, teachers discuss about issues related to HIV and sexuality with adolescents informally and occasionally (Laoubaou et al.). This situation evidences the lack of a formal SRHE curriculum in Chadian educational system, which hinders adolescents' ability to control their sexuality. As a result, there are increasing SRH problems among Chadian adolescents and young adults (Laoungang).

Furthermore, Chavula et al. argued that one of the major drivers of negative SRH outcomes among adolescents in low-and middle-income countries is the lack of education on SRH and more broadly its introduction into national education curricula. Curriculum represents a vehicle to SRHE and is a crucial mean to translate political and social wills and ideologies into teachable content and learning experiences. It does not only develop the knowledge aspect, but the skills and attitudes of youths in accordance with learning objectives (Noptario et al.). Besides, it has been defined by Adirika and Okolie as planned, guided learning experiences and intended learning outcomes formulated through a systematic reconstruction of the knowledge under the auspices of the school for the continuous and wilful growth of the learner (324). Hoesny argued that it is a broader concept that includes what learners learn, how they learn it, how teacher help them learn, what supporting materials are needed, what styles and methods are used in teaching and learning process (29).

To develop a curriculum, there is a need for a strong foundation and educators should follow a process. Curriculum development is a crucial thing to do both for policy makers in the world of education and education units that directly deal with learners at schools and should be carried out by involving several elements in line with the world of education, including teachers, school principals and staff, academics, community leaders, religious leaders, education offices

and others (Noptario et al. 84). According to Lunenburg, it is the process of planning, implementing and evaluating curriculum that results in a curriculum plan (1). More precisely, it involves the selection of objectives, content, learning experiences as well as organizing and evaluating these experiences to determine the extent to which they are effective in achieving stated objectives. The process of planning a curriculum involves different considerations as well as approaches (models) (Adirika and Okolie 324). However, Félix argued that the curriculum development process in Chad includes four steps: 1) specifying learner's profile; 2) delimiting competences; 3) identifying resources for each competence; and 4) proposing evaluation situations. Since the beginning of the development of curriculum studies as a discipline there were a lot of models of curriculum development that have been created and proposed by many scholars (Palupi). Therefore, this paper aims to review the process of curriculum development system from the perspective of Tyler, Taba, Wheeler, Nicholls, and Richards models of curriculum development to provide a direction for developing sexuality education curriculum in Chad. By examining models for curriculum development, we can analyze the crucial phases to the process. First, I briefly sketch how Tyler, Taba, Wheeler, Nicholls and Richards account curriculum development process. Next, I compare the models proposed by these curriculum theorists. Finally, I provide some implications of the analysis.

1. Curriculum development models

A model is a representation of reality presented with a degree of form and order that provides a conceptual framework for designing a curriculum based on the specific purpose of that curriculum (Adirika and Okolie 325). It assists curriculum developers to map out, transparently and systematically, the rationale for the use of specific teaching, learning and assessment approaches (Munna and Kalam 149). Since 18th century, the concept of a curriculum has been a great concern among educationist and various models have been proposed by different curriculum theorists and scholars for developing a curriculum. We need to critically examine some of these models.

1.1. Tyler's model

Ralph Tyler proposed a model, in his famous book published in 1949 and entitled “*Basic principles of curriculum and instruction*”, for designing and developing a curriculum based on four fundamental questions that must be answered when designing and developing a curriculum for teaching and learning. These questions are: 1) what educational purposes should the school seek to attain? 2) what educational experiences can be provided that is likely to attain these purposes? 3) how can these educational experiences be effectively organized? 4) how can we determine whether these purposes are being attained? (Tyler 1) These four fundamental questions represent four-sequential steps in developing curriculum: 1) selection of curriculum goals and objectives; 2) selection of learning experiences; 3) organization of learning experiences; and 4) evaluation.

Tyler's model is linear and deductive in nature starting from objectives and ending with evaluation and learners, societies as well as subject matters are major sources of information for objectives (Bhuttah et al.; Chaudhary and Kalia; Palupi). Bhuttah et al. pointed out data gathered from learners can help developers in understanding the child's needs and interests and needs of the society can help them in developing purposes by providing the knowledge, skills and attitudes for learners. Besides, data from subject matter can help identifying the objectives, selecting, organizing and evaluating learning experiences. However, his model has been criticized by some scholars. Adirika and Okolie pointed out that Tyler's model relies mainly on behavioral objectives, which are difficult and time consuming to construct. Other criticisms involved its restrictive nature and coverage of a small range of learners' skills and knowledge; its lack of distinction between content and learning experiences; its focus on learners which does not give teachers the opportunity to manipulate the learning experiences; and finally its failure to show the necessary inter-dependence of the four elements (Adirika and Okolie 328). Furthermore, it is heavily industrialized and considered teachers as factory workers that need to follow directions given by managers or factory owners (Lau 34), as Tyler believes that educational administration should design the curriculum (Läänemets and Kalamees-Ruubel 3). Another limitation is that his model is inadequate for the development of responsible and

creative persons able to meet the challenges of the constantly changing world (Läänemets and Kalamees-Ruubel 4).

1.2. Taba's model

Hilda Taba, in her book “*Curriculum development: Theory and practice*” published in 1962, offered a new way for designing curriculum, also known as an “interactive model” or “instructional strategies model” which principally focuses on instructional strategies planning and considers it the basis of the curriculum design (Adirika and Okolie 329). Taba argued that there is a definite order of designing a curriculum and teachers should be involved in the process of curriculum development. Therefore, Taba’s model creates a space for teachers to enrich learning practices by accommodating scattered materials around learners’ learning context, so their experiences will be compatible with their daily life (Palupi). Besides, her model contains a range of innovative aspects such as specificity in determining objectives and content; learning experiences selected and organized according to specific criteria; teaching strategies that specify a variety of methods and technology; and an elaborate array of evaluative procedures and measures (Lunenburg 3). Furthermore, Lunenburg argued that Taba’s model took into consideration external factors that may have an influence on its internal components. These factors include: the nature of the community in which the school is located—its pressures, values, and resources; the policies of the school district; the nature of a particular school—its goals, resources, and administrative strategies; the personal style and characteristics of the teachers involved; and the nature of the learner population (Lunenburg 3). Taba established seven most crucial steps in developing curriculum: 1) diagnosis of needs; 2) formulation of objectives; 3) selection of the content; 4) organization of the content; 5) selection of learning experiences; 6) organization of learning experiences; and 7) evaluation.

However, Taba’s model has been criticized by some scholars. Palupi highlighted that one of the criticisms is the rigid character of the model in which ended up in the evaluation process. It has also been criticized for its difficult application in heterogeneous classrooms and its restriction to only teachers rather than to the higher authorities

(Adirika and Okolie 330). Without clear direction, it may be difficult for teachers to plan the curriculum.

1.3. *Wheeler's model*

By criticizing Tyler and Taba's models, Daryl Kenneth Wheeler, in his book "*Curriculum process*" published in 1967, proposed a different style of model which is circular/cyclical in nature as opposed to Tyler and Taba's models which were linear in nature. He introduced the concept of continuity in the process of curriculum development (Bhuttah et al.), which shows that the task for developing a curriculum should always be from one step to another and should be in motion and never stop (Adirika and Okolie 331). Wheeler argued that curriculum development should not have a starting and/or ending point, cause learning practices or activities in school or in real life do not, in fact, have clear starting or ending and are always spinning and correcting it continuously (Palupi). Therefore, results from evaluation process gave feedback into objectives and goals, which influence next steps (Chaudhary and Kalia).

Wheeler's model consisted of five logical and sequential phases (Bhuttah et al.; Chaudhary and Kalia; Newlyn): 1) selection of aims, goals and objectives; 2) selection of learning experiences to help achieving these aims, goals and objectives; 3) selection of content through which certain types of experiences may be provided; 4) organization and integration of learning experiences and content with respect to teaching and learning processes; and 5) evaluation of each phases and the attainment of goals.

Although, Wheeler's model is flexible and relevant to learners in particular situations, it is time consuming (Adirika and Okolie; Bhuttah et al.) because much as revisions can be made where discrepancies occur between content and learning experiences selected to infuse them (Adirika and Okolie 332). Wheeler advocated a time consuming process that could be difficult to practice in the hectic conditions of modern educational practice, particularly when the curriculum is suffering a heavy overload (Adirika and Okolie 332). Other criticisms includes the confusion that some elements of the process can create. Wheeler's model diverges from others in the sense

that the “selection of learning experience” comes before the “selection of content” creating a possible confusion as to whether the selected learning experiences would suit the content or not (Adirika & Okolie 332).

1.4. Nicholls and Nicholls’ model

Audrey Nicholls and Howard S. Nicholls, in their book “*Developing a curriculum: A practical guide*” published in 1972, elaborated a cyclical approach to curriculum development. According to the developed model, curriculum development is a never ending process with no starting-point (Nicholls & Nicholls). Their model involved five cyclical steps: 1) situation analysis; 2) selection of objectives; 3) selection and organization of content; 4) selection and organization of methods; and 5) evaluation (Nicholls & Nicholls). Adirika and Okolie argued that, for these theorists, the main sources of the objectives should come from the study of the local environment including learners, teachers, schools and localities and the content is described as the knowledge, skills, attitudes and values to be learned. The teaching method aspects of the learning experiences involves the relationship between learners, teachers and materials, the organization of the content, its manner of presentation to learners and the activities learners and teachers carry out. Finally, in evaluation process, the theorists suggested that teachers are concerned about their learners’ progress towards a wide range of objectives, but the result of this is that assessment should be as wide in its scope as is the range of objectives (333). Though this model is flexible and can be adapted to any situation, it is time consuming and the analysis of the situation can be a long term process and it can be difficult to maintain logical sequential analysis.

1.5. Richards’ model

Recently, Jack C. Richards proposed, in his book entitled “*Curriculum development in language teaching*” published in 2001, a new framework for designing or developing a curriculum. According to him, curriculum development includes the processes that are used to determine the needs of learners, to develop aims or objectives for a program to address those needs, to determine an appropriate syllabus, course structure, teaching methods and materials and to conduct an

evaluation of the program that results from these processes (Richards 7). His model focused on needs analysis, situational analysis, planning learning outcomes (aims and objectives), course organization, selecting and preparing teaching materials, providing for effective teaching and evaluation (Richard 41). He claims that these components of curriculum development must be seen as a network of interacting systems, which suggests that changes in one part of the system affect other parts of it. Richards' model of curriculum development like Taba's model places teachers at the center of the planning and decision-making process.

The author argued that a sound educational curriculum should be based on the analysis of learners' needs, which involved collecting information about learners' needs (Richards). After analyzing the needs of learners, curriculum developers should analyze the situation since curriculum is carried out in particular contexts or situations, which contain factors that can potentially facilitate or hinder the success of a curriculum development (Richards). Therefore, situational analysis thus serves to identify potential obstacles to implementing a curriculum project and factors that needed to be considered when planning the parameters of a project (Richards). These factors included societal, institutional, project, teacher and learner factors (Grewal et al.; Richards). Richards' model has also been criticized. His model did not take into account religious factor is the situational analysis (Fahim and Nazari). Besides, the process can be time consuming.

2. Comparison of curriculum development models

There is no a best curriculum development model. All curriculum development models have merits and limitations. The analyzed models are designed for the same purpose that is proposing processes or steps and tasks to ensure that curriculum is systematically and comprehensively developed. They all serve as a practical guideline for developing a curriculum to educate individuals in the society. These models also shared similarity regarding the ways of developing a curriculum in terms of providing structure and sequence and providing a strong foundation regarding decision making about the selection of the aims and objectives of education, the contents and the way these

should be arranged, sequenced and taught as well as evaluated or assessed. However, they also have some differences related to some of their aspects. Regarding steps to follow, Tyler's model has four stages while Taba and Richards' models have seven stages and Wheeler and Nicholls' models five stages. Taba just reversed the main procedure for curriculum development of Tyler taking an inductive and grass-root approach rather than deductive and prescriptive approach like Tyler while Wheeler and Nicholls' models of curriculum development used a cyclical approach of five organized components and Richards' model followed a networked and cyclical approach. Besides, Tyler's model put more emphasis on aims, objectives, evaluation and regulation while Taba's model started with the identification of needs in a particular society and the formulation of objectives (Bhuttah et al.). Furthermore, Tyler believes that it is the responsibility for educational administration to design the curriculum and teachers should be the implementers while Taba believes that teachers are aware of the students needs, hence they have the responsibility to develop the curriculum and implement it (Läänemets and Kalamees-Ruubel, 3-4). Taba also pays close attention to the selection and organization of the content aiming to provide learners with an opportunity to learn with comprehension while Tyler lays main stress on aims, evaluation and control (Läänemets and Kalamees-Ruubel, 4). Nicholls and Nicholls' model differs from that of Tyler by emphasizing situational analysis, separating content from learning experiences and applying curriculum design to the components of curriculum content and learning opportunities (De Villiers 35).

Furthermore, Tyler's model used a top-down approach giving more power to educational administrators or managers in curriculum development and less autonomy to teachers considering them as simply implementers or executors but Taba and Richards' models followed a bottom-up approach giving more autonomy to teachers in developing curriculum and considering them as owners and active agents. Compared to Tyler and Taba's models, though there are some small difference between Wheeler, Nicholls and Richards' models, they see the process of curriculum development as cycle promoting a never ended process and a continued improvement by incorporating new information and the dynamic nature of needs and knowledge.

This approach also put emphasis on situational analysis and evaluation is used as a means to provide feedbacks into situational analysis or aims and objectives of the curriculum. In sum, Taba's model is better than that of Tyler in the sense that it gives importance to the needs of the society before formulating the objectives (Bhuttah et al.). Wheeler, Nicholls and Richards' models are better than that of Taba from the perspective that they proposed a continued improvement in the curriculum after getting feedback through evaluation process to update the curriculum and adapt it to the dynamic needs of the society and learners.

3. Implications

Curriculum is a controversial issue (Newlyn 61). Therefore, this paper does not aim to argue the political or cultural merits of a particular curriculum. Rather, it argues that it is important for educators to be aware of the climate in which they operate. As many educators may lack formal qualifications or knowledge of education theory or curriculum theory, a knowledge of these models and how they can guide their activities becomes crucial (Newlyn 61). Print argued that the model may be especially useful for content areas that undergo significant and frequent changes, such as sexuality units (71).

3.1. For policymakers

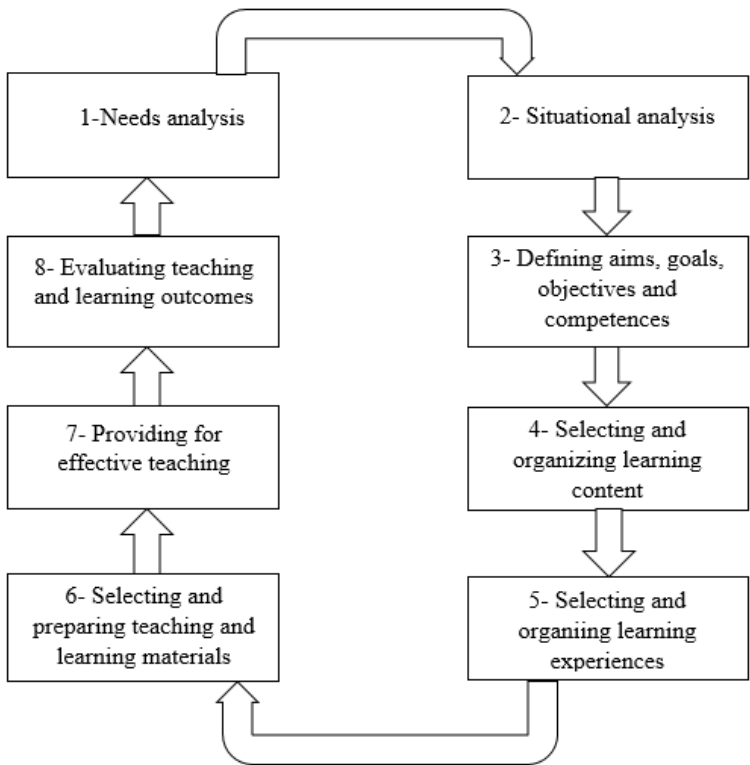
Stakeholders play a significant role in facilitating the development and implementation of SRHE curriculum. Therefore, it is paramount to facilitate the development and implementation of SRHE curriculum process by inclusive collaboration in the planning, implementation, monitoring, and evaluation of SRHE in educational systems (Chavula et al. 209). This collaboration should involve teachers, school principals and staff, academics, community leaders, religious leaders, education offices and others. Collaboration is crucial as it help facilitating the co-identification of SRH problems and the co-design of SRHE interventions and connectedness in the mobilisation of resources (e.g., training materials, human resources, and funding) (Chavula et al., 209). It is important to engage different actors to promote ownership and enhance the ability of the community to provide social accountability mechanisms.

3.2.For curriculum designers

In a context where SRH issues are still taboos, it crucial for curriculum designers to be careful when developing the SRHE curriculum to increase the chance of its acceptability and effective implementation. Therefore, there is a need for deep inquiries and asking questions are of great importance to curriculum. During SRHE curriculum-developing process, educators should ask questions like what are the adolescents' needs in terms of SRH knowledge and skills? what should be taught, under what conditions, for what purpose should it be taught? how should it be taught and how to determine SRH competences of adolescents? What training do teachers need to develop pedagogical skills and self-efficacy related to SRH? Do the didactic material resources appropriate to provide for effective learning experiences? Are the communities responsive to the SRHE curriculum? Besides, questions could also include: Is the nature of the knowledge in the curriculum sourced from didactic teachings, individual interpretations, abilities and competencies, or cultural and moral perspectives? Is learning handled from the perspective of the person receiving the knowledge or the person transmitting it? Are the learner's passive or active subjects of the teaching-learning environment? Are the teachers in the role of the transmitter or the supervisor of the teaching and learning environment? What is the goal of evaluating learners? Is it to determine their future success in the discipline, to show that a learner has certain skills, to determine learners' capacities to ease their growth, or to evaluate learners' development in their abilities? (Schiro). Based on the conceptual framework and the crucial elements, sequence of the well-known curriculum development models discussed in this study, a modified curriculum development model can be developed for developing SRHE curriculum for in-school and/or out-of-school adolescents in Chad. The proposed model in this study considers this curriculum as a continuous process of developing and modifying, which include government, researchers, parents, teachers, health professionals and learners and combines all the important components mentioned in Tyler, Taba, Wheeler, Nicholls and Nicholls and Richards' models of curriculum development. The curriculum development process should start with the analysis and identification of learners' needs and the

understanding of the environment/context in which the curriculum should be implemented by identifying various facilitating or hindering factors including religious, economic, sociocultural and political factors. These help in defining aims, goals and objectives of the curriculum and these can be achieved through incorporating the different related course content and learning experiences. The stage of evaluation is the most important stage as it can help identifying the weaknesses and strengths of the designed curriculum which could be addressed next time (Bhuttah et al.). Educators should start by analyzing and identifying adolescents' needs, especially in terms of SRH knowledge and skills needed and society's needs and come out with consensual needs and, next, analyzing the context or environment within which the new SRHE curriculum will be implemented to see whether it is suitable. These actions could successfully guide the next actions, especially the selection and definition of finalities, aims and objectives of this curriculum. They should select and organize the sexual and reproductive health learning content and experiences that suit the needs of adolescents and the Chadian society. Besides, they should set appropriate and innovative instructional practices/strategies to provide adolescents with appropriate SRH knowledge and develop their SRH literacy skills. Finally, they should design criteria to evaluate learning outcomes, instructional strategies/practices and content. It is important to mention that the process should be continuous and evaluation should be a critical element at any stage of this curriculum to have a good curriculum that can positively affect adolescents and the society.

Figure 1: Conceptual framework for developing SRHE



Needs analysis: need is the deficiency that needs to be addressed as it describes the difference between what a learner can actually do in SRH and what he or she should be able to do. In this step, curriculum developers should gather information about what adolescents really needs in SRH, in terms of knowledge, attitudes and skills/behaviors.

This could help identifying relevant SRH related topics that Chadian adolescents need to explore.

Situational analysis: SHRE program is carried out in particular contexts or situations that need to be taken into consideration. This curriculum contains factors that can potentially facilitate or hinder its successful implementation. Therefore, gathering and identifying potential enabling and/or hindering societal, institutional, political, religious, teacher and learner factors could be beneficial to understand the feasibility and acceptability of the new curriculum.

Defining aims, goals, objectives and competences: curriculum designers should establish aims, goals, objectives of the curriculum and competences that learners should develop based on the information collected during the needs analysis.

Selecting and organizing learning content: the content should be based on the aims, goals, objectives and competences that have previously been formulated needs analysis. This involves the curriculum developers in making a clear statement of the skills and content that they wish to be able to identify in a learner who successfully completes the unit (Newlyn 61). The content consists of certain topics and sub-topics that contain the main ideas that are relevant to the specified objectives and competences and involves facts, attitudes, values and skills (Newlyn 60). Curriculum developers should select SRH related content that is actual, significant, meaningful, relevant to social and cultural realities of learners, in accordance with the needs, interests, abilities and experiences of adolescents and organize it logically.

Selecting and organizing learning experiences: learning experiences and/or activities should be related to the selected content and the realities of learners. Curriculum developers should select SRH related learning experiences that is actual, significant, meaningful, relevant to social and cultural realities of learners, in accordance with the needs, interests, abilities and experiences of adolescents and organize it logically.

Selecting and preparing teaching and learning materials: curriculum material is mainly all learning activities and experiences that are compiled to achieve educational goals. Preparation of

teaching and learning materials consists of certain topics and sub-topics that contain the main ideas that are relevant to the specified objectives. Therefore, curriculum developers should develop instructional materials related to SRH that significant, meaningful, relevant to social and cultural realities of learners, and the needs, interests, abilities and experiences of adolescents.

Providing for effective teaching: Richards states that quality teaching is achieved not only as a consequence of how well teachers teach but through creating contexts and work environment that can facilitate good teaching. Therefore, reaching quality teaching involves consider some determinant factors such as institutional factor, teacher factors, teaching factors, and learner factors. For a SRHE curriculum developer, this may mean an examination of teaching methods and strategies that are suitable for implementing the content and learning experiences. There are several methods and strategies that teachers can use in conveying curriculum content, either subject-centered, learner-centered or oriented to people's lives.

Evaluating teaching and learning outcomes: Richard specifically defines evaluation as to collect information about different aspects of a program to understand how the program works. This can be done by analyzing and examining several contexts in SRHE curriculum such as the goals attainment, the process of implementing the curriculum and the course contents, teaching and learning materials, teaching strategies and media, teaching evaluation and how effective the SRHE curriculum respond the learners' needs. Curriculum developers could evaluate the components and process of teaching not only by using tests but also non-tests such as observations, documenter studies, analysis of work results, questionnaires and checklists.

4. Limitations

This paper is not without limitations. Firstly, it is more theoretical and discuss only some curriculum development models. Second, the proposed conceptual framework for SRHE might not be generalizeable since it was mainly based on existing models of curriculum theorists and was design without involving and/or

consulting local experts and educators. Besides, the model was not yet empirically validated in Chadian context. To mitigate these limitations, studies are needed to empirically test the proposed model for validation and reliability.

Conclusion

In the course of years, curriculum and/or educational theorists have proposed models to guide and assist curriculum developers to conceptualize the development process by pinpointing some principles and stages. Models examined in this paper have strengths and weaknesses. It is important to note that the best curriculum development model for developing sexuality education curriculum should be in accordance with the needs of learner at individual level and take into account the available environment, facilities and time as well. All the needs should be identified at first level and later the objective should be defined according to learner, environment, subject matter requirements and time as well. Further, a curriculum should also be interesting, motivational, flexible as well as practical so that it can be easily implemented.

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