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Artikel

Curriculum Reform: Introduce the Concept-Based Curriculum and Instruction in Cambodia to Improve Students' Learning in 21st Century

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Info Artikel

1st AVES
Annual Virtual Conference of
Education and Science 2021

Kata kunci:

concept-based curriculum and
instruction,
21st century learning,
skills

ABSTRACT

When education is the engine driver of the economic direction, teachers and curriculum are the driver and fuel to drive education to perfection and success. However, the current curriculum implementation and instruction are misaligned with society's needs and alignment of 21st century learnings and skills. Therefore; it can lead to learning compromised and skill mismatched for the labor market. This article aimed to review the significance of Concept-Based Curriculum and Instruction to improve student's learning outcomes. It also underpinned the preparedness of Cambodian teachers to be adaptable to the CBCI. This study employed a systematic literature review on theoretical views and the practical aspects of the New Generation School project regarding teaching and learning approach. The findings revealed that *Cambodia should shift focus to CBCI to increase students' learning outcomes and responding to 21st-century learning*. With the transformation, the constructivism approach used in NGS fitted best for the CBCI implementation. The success of CBCI execution undoubtedly correlates with teacher pedagogy and adequate physical infrastructure. The study suggested that constructivism should be widely used in the teacher education program. The strengthening of the in-service teacher training program, which highlights both subject contents and teaching method is needed. It is also important to taking heed of the school infrastructure and teaching and learning materials.

INTRODUCTION

The modern and fast-changing society are facing with challenges such health, economic, environmental grow. This require competence human resources dealing with such issues. This global trend of increasing issues lead educator to consider reviewing the curriculum as the way to improve student's learning and equipping them with skills, knowledge competence and attitude needed for the society. Thus, education plays a vital role in poverty

eradicate and promoting peace and sustainable development of the country. The Royal Government of Cambodia has committed to become low middle-income country by 2030, and high-income country by 2050. Cambodia education system aims to develop human resource to response the vision of Cambodia's socio-economic development. The significance of education as the development of human resource has been acknowledged not only among educators, but also political leaders. Likewise, Cambodia Rectangular Strategy phase IV highlighted human resource as the main priority to achieve goal. Thus, education has to develop man's intellectual, physical, and spiritual power and innovated mind for the durability of their life.

The curriculum and curriculum reform have been circulated in the heart of the reform to improve students' learning outcome and to attain education quality. The quality of curriculum and quality of education cannot be distinguished, rather they have to be matured simultaneously and shelter in the same avenue. Rani (2014) claimed; when the education engine drives the wheel of the nation, the curriculum becomes the fuel for successful driving toward the direction of education perfection. Thus, the curriculum must be developed to equip students with the knowledge, skills, attitudes in response to the country's needs. It is notably the ministry has tenor in 21st century skills, but the content of curriculum and instruction are falling behind.

The current curriculum and the instruction are not properly accomplishing 21st-century learning and skills. In Cambodia, several issues curriculum utensils existed comprising of; content, implementation, instruction, and evaluation. According to (Hang-Choun, Siribankpitak, Usaho (2018), Cambodia's curriculum is overloaded in both contents and subjects, some subjects are just separated from the other ones, and it becomes accelerated and congested. Similarly, (Ngin, 2018) found that the contents of the lesson are complicated and do not respond to the current objective and trend. Additionally, the textbook review (Chet, et al., 2014) does not reveal features that render active, creative learners, which are conduits for "higher-order" cognitive knowledge, skills, and attitudes. The deficient curriculum has content of lesson and textbook is bring education quality downfall.

Apart from the inadequate curriculum contents and mismatch of objectives, the instruction *is also causing* challenges in curriculum implementation *and quality education*. These days the teaching method did not counter to tenor of 21st-century learning and skills needed. Students are supposed to be active learners. Active learning strategies involve a different teaching approach, as well as engaging lesson ideas and, are credited to a student-centered approach. Unfortunately, the teacher-centered approach also known as the traditional teaching approach is continually used widely, while the teacher training center already introduces and promotes a student-centered approach. Lesson structures and contents are important, but perhaps even more significant is how teachers and students interact in lessons with appropriate instruction. To bring off Cambodia's education goal which response to the 21st century learning the Concept-Based Curriculum and Instruction (CBCI) fits best to the current context, and brings Cambodian students to the 21st-century skills needed.

RESULT AND DISCUSSION

Why Cambodia should shift focus to Concept-Based Curriculum and Instruction?

Cambodian education direction tends the 21st-century education, this can be seen in the objective of sub-sector ranging from early child hood education to higher education. Most of the objectives and strategies of sub-sectors are to revise, develop the curriculum and teaching method to be arranged in line with the 21st century. MoEYS directs to cultivate and enlarge

the 21st-century skills comprising with such collaboration, combination, critical thinking, creative thing, problem-solving skill, and so on so forth.

In the 21st century, students are supposed to equip with elements such; emphasizing a deep understanding of knowledge, fact, and concept, understanding of interdisciplinary themes. Education in this era should focus on 21st-century skills, content knowledge, and expertise (Alismail. H, A & McGuire.P, 2015, p. 115). In order to achieve the authentic learning that is demand for the 21st century, the objectives, contents, instruction, and evaluation of curriculum must be centered in the favor of the 21st century. The adoption of a 21st-century curriculum should blend knowledge, skills, innovative thinking, and digital literacy in place of core subjects (Paige, 2009). Giving this fact, concept-based curriculum and instruction (CBCI) which defined as the three-dimensional design model that constructs factual content and skills with disciplinary concepts, generalizations, and principals (Erickson,H., Lanning,L & French,R., 2012). This curriculum model values a solid base of critical factual knowledge across the disciplines, but they raise the bar for curriculum and instruction by shifting the design focus to the conceptual level of understanding.

The memory-based content is still in charge of Cambodia education presently. This is contradictory to the promotion of 21st-century learning and thus discourages students to think “out-of-the-box. The objectives of the curriculum and lesson indicated attitude, skill, and knowledge. However, the factual concept, mentality mindfulness, and the awareness of internalization have not been introduced. The CBC deviates specific subject content and factual rather, it emphasizes on the big idea and conceptual that enable to cover the multiple and various subject areas or disciplines.

The goal of education is not only educating for the job or for the brain, but also the heart and mind. Erickson, (2012) identified concepts are mental constructs, thus the learning of them is brain-centered, although it may be assisted through practical experiences. With this, the CBCI provided student with mindset development since it encourages them to find the connection, making abstractive and identifying relationship. Through this the CBCI assembles students’ previous knowledge and experiences to new knowledge that will be sustained and actualized to the concept of knowledge. Additionally, CBCI stressed the intellectual development that is the major of education focus for preparing young people for the 21st-century society.

The intellectual disposition provides such; creative thinking, critical thinking, metacognitive thinking, and conceptual thinking (Erickson,H., Lanning,L & French,R., 2012, p. 22). In CBCI, teachers are motivated to guide students’ thinking productively by questioning, coaching, and designing a task that enlarges students’ thinking beyond the fact (Erickson,H., Lanning,L & French,R., 2012, p. 19). The expansion from factual to conceptual will enable student to be potentially apply knowledge to particular situation. This shapes student to deal not only in fact but also the concept, and these two knowledges are needed to associate for applicable in the range of situation. Providing student on conceptual knowledge improves their problem-solving skill, cross cultural understanding since it tends to be shared across individuals in a given culture.

How does Cambodia's education system prepare to adopt the CBCI?

The overview of curriculum issues and the essentials of Concept-Based Curriculum Instruction have been described which encounter of contents, objective, instruction. To be capable to execute the curriculum reform by implementing the CBCI, new learning and teaching approaches are required. In concept-based teaching and learning students are settled with imagination, discussion, debate, and synthesis. Student also prompt to deliberate of big-idea and think out of the box, they also are motivated to engage with the real-world data and

issues since this can be prepared them for the future of job and dealing with any troubles; especially in the digital-based economy. In order to adapt and implement the CBCI, Cambodia's Education has to take action as following;

- o Carry on curriculum reform by developing the CBCI, and revise the objective and textbooks. Develop the CBCI to fit with Cambodia's context and magnifying 21st-century learning. In the curriculum, the development phase invites CBCI specialists, teacher policymakers, and stakeholders to engage and provide inputs. Numerous remedies are compelled to take into accounts such as developing the assessment criteria or tool to measure the conceptualize understanding, curriculum, and student's assessment.

- o Teacher has to have a solid understanding of concept-based curriculum and instruction. Therefore, the teacher training program is needed to revise follow by CBCI to train student-teacher properly and producing teachers for CBCI. Not only has the program changed, but also the teacher trainer must be skillful and conceivable of concept-based curriculum and pedagogy. However, only organizing training for teachers will never be enough if teachers themselves do not commit to using or changing their teaching behavior and perceptions toward CBCI. Some previous research findings revealed that teachers perform inactively due to several reasons such as; absence of motivation, insufficient salary, lack of performance management system, lack of accountability among school management, unqualified school principals. These causes give the image of deficient of the Professional Career Development guideline which has been developed. To strengthen the use, the guideline has to be widely disseminated and call for participation from relevant people.

- o Piloting the CBCI at New Generation School since the schools are well-equipped with adequate infrastructures, more of young-mindset teachers that eager for quality-based teaching, school authority, and accountability. NGS got technical support from KAPE and MoEYS, while the budget also takes in a large amount. The school have more authority in budgeting, recruiting teacher and using their schedule design. Study hour at NGS is much than other normal schools especially, the STEM subject. In other words, the national curriculum policies aim to produce active learners and an adaptive workforce through inquiry-based learning. In the line with that, NGS fully applies the constructivism approach which includes inquiry-based learning, problem-based learning, project-based learning, collaborative, inductive. All these approaches serve for the student-centered approach and 21st-century learning. Teachers are continuously supported in test assessment development and constructivism learning and teaching scheme.

- o Continually, support professional development, strengthening in-service training on concept-based pedagogy, subject contents, and assessment. To strengthen the quality and quantity of in-service training, MoEYs should follow the promotion criteria which is mentioned in Teacher Policy Action Plan (TPAP). Training will be useless if the management team do not promote

- o Conduct monitoring and evaluation annually, to dig out the challenges, issues happen during the implementation and finding solution immediately to ensure excellent performance. Initially, MoEYS has to ensure that they have qualified staff to monitor and evaluate the program. Those staff should be involved in the group of people who develop the curriculum. The monitoring tool has to be developed for a certain purpose based on the contents, objectives, implementation of the curriculum.

CONCLUSION

To conclude, Concept-based Curriculum and Instruction enables Cambodian education to move toward 21st-century learning. This curriculum requires new approaches to

teaching. Thus, teachers who identified the main actor in prediction the success of implementation have to be instructed and fulfilled on the use of CBCI manifestly. The constructivism teaching and learning approach should be placed in the teacher education program and widely introduce for the in-service training. The constructivism approach encounters the various approaches such inquiry-based learning, collaborative learning, project-based learning, especially, the student lead-approach that serve and fit best for the Concept-Based Curriculum. The selection of New Generation School (NGS) as the initial place to pilot CBCI is necessary since it is equipped with adequate hard and soft resource; teacher quality and physical infrastructure. From the results and experiences of piloting, the Ministry of Education Youth and Sport will have better sight and system to start officially implementing in the whole country.

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