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Reviewing Challenges of Curriculum Implementation in Cambodian Teacher Education and Possibilities for Improvement

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ABSTRACT

Since the challenges in curriculum development in the Cambodian context were unclear and scattered, its collections would be a priority to see a whole image of challenges along with possible solutions for the developer, practitioner, and stakeholders. This paper aims to review the challenges of curriculum implementation in Cambodian teacher education and the possibilities for improvement. The integrative review approach of the conventional review paper was employed to form a new framework of selective secondary sources. 18 articles (16 primary and 2 secondary data) were collected from Google Scholar under 4 criteria: (1) content-related paper, (2) no longer than 10 years of publication, (3) primary or secondary data, and (4) ASEAN reflection on the Cambodian context. The findings indicated five main challenges of curriculum implementation in Cambodian Teacher Education: (1) teaching and learning activities, (2) instructional materials, (3) assessment, (4) teacher career pathway, and (5) external factors. The possibilities for improvement to overcome these challenges also involved five main solutions for improvement as mentioned above, along with three elements that were hidden such as (1) system, (2) practices, and (3) production. The course designers and key practitioners may put theories into practice by gathering information, reflecting, and making possible changes in curriculum implementation for notation and improvement.

Keywords: *Challenges and Implementation, Curriculum, Possibilities for Improvement*

INTRODUCTION

The curriculum is defined as a package of knowledge, skills, and attitudes mentioned in the syllabus and textbook (Alismail & McGuire, 2015; He et al., 2015). They are transformed into students for their future readiness. Knowledge is known as the element of the cognitive domain, attitude is the component of the affective domain, and skill is a category of the psychomotor domain. To transform these domains into the students, the curriculum is narrowed down into three aspects: content, learning objective, and process (Alismail & McGuire, 2015; Schneiderhan et al., 2019; Young, 2018). These three aspects are followed by three elements, called contents, pedagogies, and assessment (see Figure 1). The content is defined as what the student needs to learn that involves specific content knowledge and performance-based activities in terms of cognitive, affective, and psychomotor domains. As shown in Figure 1, the pedagogy indicates how the student learns which is separated into three ways: subject-centered, problem-centered, and learner-centered approaches. In addition, the assessment refers to the reflection on how the student learns. It is considered as a mirror showing the progress or achievement of the students and what to do next (Alismail & McGuire, 2015; Pendergast et al., 2024; Wilson, 2017).

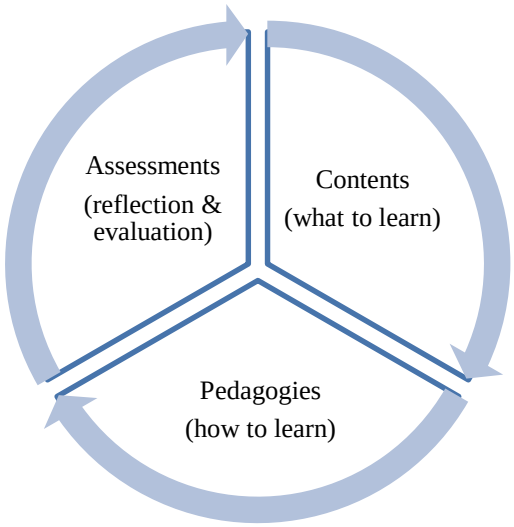

Figure 1. Contents, Pedagogies, and Assessments in Curriculum
Source: Pendergast et al. (2024)

In terms of the implementation of the content knowledge, ways to teach, and ways to assess students, the curriculum aims at achieving three main priorities (1) life skills which means soft skills and hard skills, (2) innovative connections which refers to 4Cs such as communication, critical thinking, collaboration, critical thinking, and creativity, and (3) information communication technology which indicates how to use digital tools and platforms, how to make media, news, or social events, and critical use of artifical intelligent (Alismail & McGuire, 2015; In, 2025;

Kheng, 2023; Kosasih et al., 2021). Designing the curriculum can be categorized into four phases: planning, designing, implementation, and evaluation (Macalister & Nation, 2019). Additionally, Erstad & Voogt (2018); Kheng, (2023); Pendergast et al. (2024) added another phase to the curriculum, called post-implementation. This additional phase indicates how the official curriculum, after the reflection and evaluation, is rolled out in the schools or groups of students. They also found a couple of practices in each phase in terms of the reality of curriculum development and it was then developed into 5 phases: (1) planning and consultation, (2) designing and development, (3) trailing and prototyping, (4) communication and implementation, and (5) post-implementation and evaluation (see Figure 2). The five phases provide an entire picture of the curriculum circles with where to start, how to implement, and what to evaluate (Grant, 2018; Kheng, 2023).

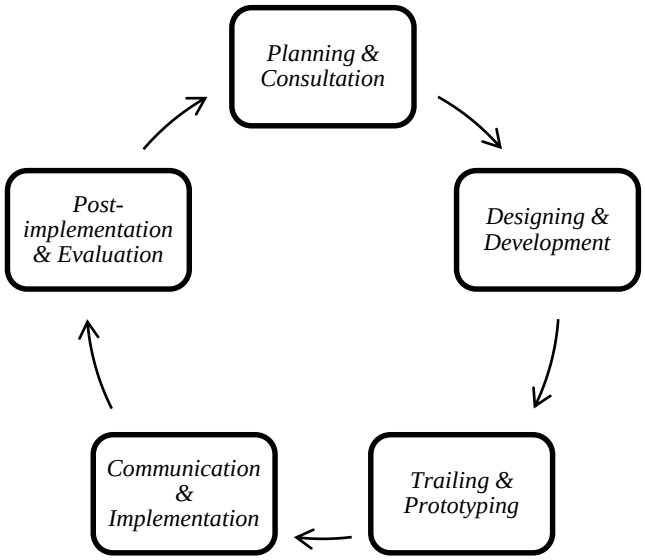

Figure 2. Five Phases of Curriculum Framework
Source: Run (2023)

However, one of the challenging phases in the curriculum framework in the Cambodian context is known as its implementation since the course designers and key practitioners need to deal with the complexities of taking textbooks, syllabuses, instructional materials, and relevant supplementary into the real classroom context. A phase of the curriculum implementation also comes up with issues in teaching and learning activities, how to assess the students, lack of resources, and teaching competencies. In addition, other challenges of the curriculum implementation may remain behind, and it is essential to examine the possibilities for improvement from global practices (Mohanasundaram, 2018; Young, 2018).

This paper aims to review the challenges of curriculum implementation in Cambodian Teacher Education Colleges and the possibilities for improvement under 5 core aspects: (1) teaching and learning activities, (2) instructional materials, (3) assessment, (4) teacher career pathway, and (5) external factors (Alismail &

McGuire, 2015; Kheng, 2023; Pendergast et al., 2024; Run, 2023; Sok & Bunry, 2024). This paper is guided by two questions: (1) What are the challenges of curriculum implementation in Cambodian Teacher Education? and (2) What are the possibilities for improvement in curriculum implementation for Cambodian Teacher Education?

RESEARCH METHODOLOGY

The integrative review approach of the conventional review paper was employed to form a new framework of the selective secondary sources (Schick-Makaroff et al., 2016). 18 articles (16 primary and 2 secondary data) were collected from Google Scholar under 4 criteria: (1) content-related paper, (2) no longer than 10 years of publication, (3) primary or secondary data, and (4) ASEAN reflection on Cambodian context on curricula and education. These 18 articles included ASEAN member states namely, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste (observing member), and Vietnam, that showed images of challenges and possibilities for improvement in curriculum implementation for higher education in Cambodia. Its publications varied from 2015 to 2025 based on keyword-based findings. The thematic analysis was employed in five phases: "compiling, disassembling, reassembling, interpreting, and concluding" to categorize themes, sub-themes, and codes (Castleberry & Nolen, 2018). The findings were interpreted by evidence-based codes with their descriptions and conclusions.

RESULT AND DISCUSSION

The findings indicate challenges of curriculum implementation in Cambodian teacher education and possibilities for improvement as follows:

CHALLENGES

Teaching and Learning Activities

The findings showed that the teachers sometimes found it hard to employ collaborative learning since the content was more focused on the teacher's talk time. In addition, the contents did not prepare students for the challenges and opportunities of the 21st century. The teachers found it hard to modify and contextualize the subject matter into real-life situations (Sok & Bunry, 2024). To some extent, teacher trainers were still not very confident in the use of new pedagogies to promote student learning. They felt like the students could learn themselves, and this could lead the students to a demotivated track in their learning journey (Meng, 2021). It was mentioned that the teacher was likely to have an additional job. Likewise, it affected lessons and classroom preparations and would result in incomplete content of the curriculum.

Instructional Materials

The teachers intended not to use instructional materials since they faced challenges in administrative requests for the instructional materials and only a few teachers could include new material in their teaching. Some teachers just used whatever was given and mentioned that they did not have enough time to be well-prepared (Un & Sok, 2018). Moreover, the materials provided to the teachers were less authentic and were even not enough if they used them regularly. Some classes did not have LCD projectors so that it made teachers spend much time writing lessons on the whiteboard. It is also mentioned that there are not many materials for science classes for experiments, and they were expensive (Meng, 2021; Sok & Bunry, 2024).

Assessments

The result showed that the students were evaluated in ways that teachers could do with less structure. The students with the same course and taught by different teachers were tested differently and ways of scoring remained biased and invalid (Un & Sok, 2018). The classroom result demonstrated more on summative assessment rather than a formative way, resulting in less progress of student's learning. In addition, it was mentioned that doing an assessment required times and affords, and the evaluation relies more on a holistic approach rather than a category (Meng, 2021).

Teacher Career Pathway

The teacher found fewer opportunities to upgrade their professional development since they were getting older and poorer in the English language, so they found it hard to acquire global knowledge. It was evident that some trainers had less classroom experience and even less knowledge than their trainees (Meng, 2021). A recent study found that mathematics knowledge among teacher trainers was similar to that of Grade 9 students, and lower than that of their trainees. Some Phnom Penh Teacher Training College students stated that some of their trainers were not legitimate both in terms of subject knowledge and pedagogical skill. This situation was made even worse by the staffing shortage in which poorly qualified trainers were asked to teach subjects about which they knew absolutely nothing. Trainers were often asked to substitute for other trainers who did not specialize in a certain area when they were called out of a workshop. Similar to this, a lack of staff forced non-specialists to teach subjects they were not very knowledgeable about, which resulted in subpar topic preparation and delivery. A lot of trainers taught three or four subjects a week, some of which they found difficult to understand (Sok & Bunry, 2024).

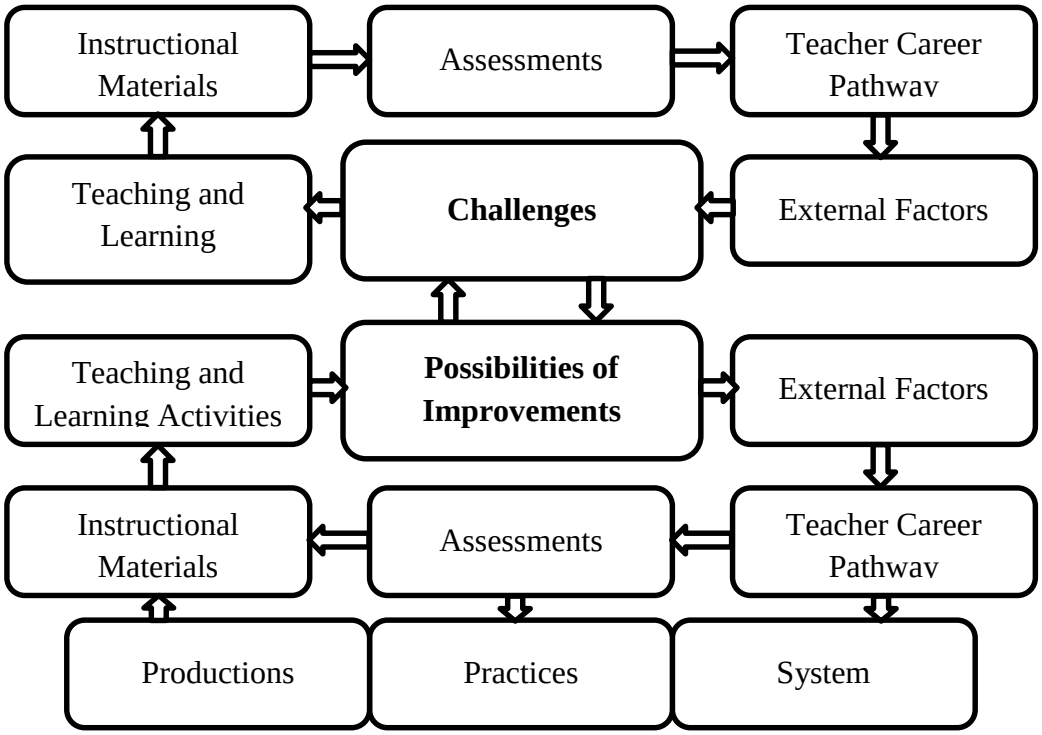

Figure 3. Summary of Key Findings in Challenges and Possibilities for Improvements in Curriculum Implementation

External Factors

The findings showed that the teachers find themselves busy with their second job or their business besides their teaching duties. They focused more on their private job rather than their teaching responsibilities. In addition, the teacher trainers had to follow the school curriculum, and textbooks even though they knew that was not up to date. Even sometimes they wanted to provide teacher trainees with new knowledge, they still had to cover what was in the school textbook. To some extent, teacher trainers stated that they had limited knowledge of implementing some learning approaches such as problem-based learning and concept maps. Moreover, the social sciences trainers indicated that they knew less about how to use student-centered approaches such as project-based learning and collaborative tools (Meng, 2021; Sok & Bunry, 2024).

Moreover, it is mentioned that a lack of coordination between departments may lead to curricular gaps which means that trainers were not always aware of new teaching programs that had been applied in school. Many students indicated that they felt that there were too many subjects in the curriculum, many of which are “too general.” On the other hand, the learning hours provided were not enough to attend to all of these subjects (23 subjects per week). Moreover, the learning time was short, and students felt like they had fewer opportunities to ask questions. Thus, the curriculum was a mile wide but only an inch deep (Kheng, 2023; Meng, 2021; Sok & Bunry, 2024).

POSSIBILITIES FOR IMPROVEMENT

Teaching and Learning Activities

Five of eighteen papers indicated the significant impact that teacher education programs had on the knowledge, abilities, and attitudes of teacher candidates, as well as on the academic outcomes of their students (Erwin Akib et al., 2020; Petraki & Khat, 2022). Therefore, a number of factors, including the credentials of teacher educators, the school's infrastructure, the collaboration between student teachers and educators, the alignment of theory and classroom practice, and the program's accreditation, were necessary for an effective teacher education program (Aburatani et al., 2020; Ohajionu, 2021). Research findings substantially supported these important indicators. For example, Ohajionu (2021) argued that criticism of teacher preparation stemmed from a failure to consider the realities of classroom practice. It was reasonable to assume that traditional teacher preparation programs were ineffective because they had not given in-service teachers the necessary pedagogy, subject matter, and other skills to enable them to respond to a variety of challenges brought on by a variety of classroom situations (Aburatani et al., 2020; Tran et al., 2018).

The results of the study by Petraki & Khat (2022) and Erwin Akib et al. (2020) illustrated the difficulties experienced by teachers in implementing the curriculum. The highest of them was the difficulty in understanding the implementation standards. In another study by Ogden (2017), the first question concerned how teachers conceptualized the nature of integration and enacted integrated curricula in their schools. The teachers' conceptions and practices of integration did not fit neatly into the models of curriculum integration identified in the literature. Most teachers learned about curriculum integration through in-service seminars or short courses; thus, opportunities to explore models of curriculum integration were limited (Ogden, 2017; Ohajionu, 2021; Petraki & Khat, 2022).

A feeling of inadequacy in subject knowledge was found to be a concern of all except one of the teachers involved. Without an ample grasp of the subject knowledge, teachers found it difficult to identify the key ideas to be covered in their teaching (Aburatani et al., 2020; Erwin Akib et al., 2020; Saravanan, 2005).

Instructional Materials

The paradigm shifted from the teaching process to the learning process in the learning process standard. Students were encouraged to actively participate in the interactive learning process in the educational unit, which was fun, challenging, and held according to their talents, interests, and physical and psychological development (Phan et al., 2016). It also allowed ample room for innovation, creativity, and independence. Instructors using teacher centers should employ a systematic method to transition to student centers (Barrot, 2019; Erwin Akib et al., 2020; In, 2025). Digital tools and platforms, especially for experimentation and

article intelligence, were found to be necessary to engage and assist for ecosystem in learning for the digital era (Hum & Choi, 2020).

Assessment

As suggested by Haydena & Martin (2013), the implication was teachers should make authentic assessments with adjustments between core competencies and the kind of material scope, for instance, religious core competencies in science and mathematics subjects are indirect, but the values were taken directly in religious subjects. The assessment may be put into a systematic structure to ensure validity and reliability, and it should be more relied on formative assessment to reflect the student's progress and improvement (In, 2025; Tan Şişman & Karsantik, 2021). The formative scoring process, in which the students were evaluated continuously in result-based performance, was needed and could be classified into three main areas such as knowledge, skills, and attitudes as an academic performance.

Teacher's Career Pathway

The foremost challenge to these school-based initiatives found in the study of Farokhah et al. (2022) was that many teachers did not see the implementation of new changes in the curriculum as their top priority. Rather, teachers regarded national and standardized examinations as the main drivers of curriculum, and the prioritization of examinations held far-reaching curricular implications, such as the allocation of time and the organization of programs around examinable subjects. Indeed, some teachers cited the importance of aligning integrated curricula with disciplinary syllabi so as to enhance students' chances of securing good results in public examinations (Barrot, 2019; Dash, 2017; Ohajionu, 2021).

On the assessment standards, teachers lack of understanding of authentic assessment systems and procedures. The assessment conducted in the learning process, which aimed to measure the achievement of competence, progress, and improvement of student learning outcomes continuously includes attitudes, knowledge, and skills (Farokhah et al., 2022; In, 2025; Tan Şişman & Karsantik, 2021).

External Factors

The curriculum should be grounded in practice by classroom observation, the curriculum should contain students' experiences of learning, and the curriculum should shift from teaching content to the student's learning based on the student's experiences. Teachers should empower them to be effective as individuals and belong as members of society by providing students with chances to discuss, find out what they know, and explore more for independence in learning. In addition, collaborative learning encouraged students to gain more experiences by using an appropriate and relevant approach (Aburatani et al., 2020; Erwin Akib et al., 2020). Moreover, the recognition of the various ways in which academics conceptualize teaching procedures and the ways to be well prepared for planning the lessons were

found necessary to collaborate with other specialized subjects (Barrot, 2019; Ohajionu, 2021; Tran et al., 2018). Connecting the learners to real-world practices by taking them into the problems and assisting them toward critical thinking and problem-solving was found obstacle due to less collaboration among the teacher trainers, management team, and stakeholders. The artificial intelligence program, resources in experimentation and digital tools, and classroom equipments were found to be updated, and cooperation and connectivity with education companies, partnerships and stakeholders required further actions (Aburatani et al., 2020; Ogden, 2017; Phan et al., 2016; Tran et al., 2018).

CONCLUSION

The findings indicated five main challenges of curriculum implementation in Cambodian Teacher Education: (1) teaching and learning activities, (2) instructional materials, (3) assessment, (4) teacher career pathway, and (5) external factors. The possibilities for improvement to overcome these challenges included five main possible solutions as stated in the above challenges and involved three elements that were hidden in the possibilities above such as (1) system, (2) practices, and (3) production. The course designers and key practitioners may put theories into practice by gathering information, reflecting, and making possible changes in curriculum implementation for notation and improvement.

However, the findings of this study remain limited application since the data-driven for the study was gathered from only Google Scholar, especially the shortage of articles in the Cambodian context. The next study may focus more on the curriculum implementation in the Cambodian context, using the primary data, to examine the current challenges and possibilities for improvement in lower and upper secondary education as well as to find its similarities and differences.

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