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Outcome-based education in response to higher education reforms in Cambodia

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Introduction

Doing things with specific goals and plans may help to avoid failure. Generally, three main educational goals, namely personal, economic, and civic, play a vital role in the socioeconomic development of a country. The Ministry of Education, Youth, and Sport (MoEYS) in Cambodia has developed the National Higher Education Qualifications Framework (NQF) and Qualification Standards since 2015. It has also formulated a series of Education Strategic Plans (ESP), including ESP 2009-1013, ESP 2014-2018, and ESP 2019-2023. Since the development of the NQF, many Cambodian higher education institutions (HEIs) have modified their programs to meet the NQF requirements. The minimum requirements for graduates' learning outcomes include five elements, such as (a) knowledge; (b) cognition; (c) interpersonal skills and responsibility; (d) communication skills, numeracy, and information technology; and (e) psychomotor skills (MoEYS, 2015, 2019).

Research has shown that Cambodian students lack skills and professional competence (see International Labour Organization [ILO] & Asian Development Bank [ADB], 2015; Peou, 2017). The current curriculum delivery and implementation as well as the teaching and learning process at HEIs, therefore, need immediate reforms to be able to provide quality education to students. According to Hang (2019), Cambodian HEIs need to conduct reforms in three main areas: curriculum, teaching and learning, and management.

With regard to reforms in curriculum, teaching, and learning, outcome-based education (OBE) can be a suitable approach to meet the requirements of the NQF since it can be tailored to fulfill the needs of diverse groups, including

teachers and learners. Although other approaches, such as content-based education, discipline-based education, or standard-based education may be an option, this article focuses on OBE and argues for its adoption in Cambodian higher education.

Outcomes and outcome-based education at a glance

The term "outcome" refers to students' demonstration of their learning results upon the completion of significant learning experiences. Instead of "values, beliefs, attitudes, or psychological states of mind" (Spady, 1994, p. 12), outcomes are the ability to tangibly apply what students have learned and known. In other words, outcomes refer to actions and performances that embody and reflect learners' competence in successfully using subject matters, theoretical concepts, information, and tools.

OBE is like the concept of democracy. It is not a single set of ideas or a single set of procedures. Many different versions of OBE are practiced differently in different places, yet they all are OBE (Lawson & Askell-Williams, 2007).

According to Killen (2000), OBE incorporates many ideas:

> Outcomes-based education does have its roots in a variety of pedagogical studies such as earlier work on educational objectives (e.g., Mager, 1962), competency-based education (e.g., Franc, 1978), mastery learning (e.g., Block, 1971; Bloom, 1973) and criterion referenced assessment (e.g., Masters & Evans, 1986), but it has synthesized and extended all these ideas. (p. 5)

The success of OBE can be proven through the assessment of students' academic performance (Willis & Kissane, 1995). In OBE, teachers can utilize various appropriate assessment methods in order to ensure that students will attain the established learning outcomes. OBE, furthermore, is a useful advanced approach that can be used to design and enact curriculum (see Lawson & Askell-Williams, 2007). Therefore, curriculum developers need to consider providing ample opportunities to engage students with relevant curriculum contents, learning resources and experiences, and teaching activities.

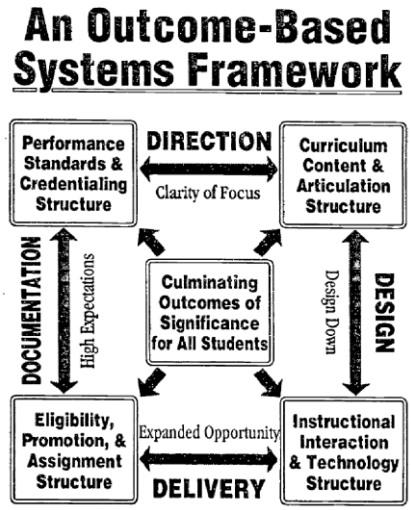
Moreover, according to Spady (1994, p. 6), OBE consists of two major aims which reflect its underlying "success for all students and staff" philosophy. First, it ensures that after students finish their studies, known as "the exit of the educational system," all of them can successfully demonstrate their knowledge, competence, and qualities needed in the workplace. Second, students can attain those ultimate goals or maximum outcomes through structuring and operating schools.

Spady (1994) developed an Outcome-Based Systems Framework that comprises four major principles, including (a) clarity of focus, (b) expanded opportunity, (c) high expectations, and (d) design down (see Figure 1). Willis and Kissane (1995, p. 21) extended this framework to include five principles:

1. Clarity of focus: the determination of what to be taught to students or of what can be done to enhance students' capability.
2. The enhancement of equitable capability or needs through the commitment to outcomes.
3. An accountability is collectively taken by concerted efforts from the judgment of professionals and decision-makers in educational settings.
4. The accomplishment of developed learning outcomes: all relevant stakeholders share their responsibility.
5. The significance of the alignment of learning, teaching, and assessment.

Figure 1

Outcome-Based Systems Framework (Spady, 1994)



Application of Spady's (1994) outcome-based systems framework

Drawing on Spady's (1994) framework, Cambodian HEIs can use the simple 4Ds (Direction, Design, Delivery, and Documentation) to design and develop any curriculum that can produce qualified graduates to meet the five minimum requirements determined by MoEYS. In the framework, *Direction* refers to whom HEIs wish students to be or to become, why so, what to do, and what students' needs and interests are. *Design* refers to selecting and organizing contents as well as selecting and organizing learning experiences to meet the *Direction*. *Delivery* involves curriculum implementation, incorporation of technology and provision of freedom for instructors to decide whether to skip or replace contents or activities to help students to meet the learning outcomes specified in the *Direction*. Lastly, *Documentation* refers to data collection in every stage. Instructors and even learners can use the process of documentation to reflect on their performances and check whether or not high standards, outcomes, and credentials are met.

According to Lawson and Askell-Williams (2007), outcome-based curriculum (OBC) provides direction in planning learning activities, focuses on learners' behavior that needs to change, serves as guidelines for contents, teaching, and assessments, and conveys learning outcomes to learners so that they are clear of what exactly is to be learned.

Overall, OBE or OBC focuses on what to be learned or qualities to be developed, and/or on what students can do upon the completion of their study. It also involves restructuring curriculum, practices, assessments, and reports in order to cater for students' higher-order thinking skills and mastery of learning compared to the traditional credits-based practices. Moreover, OBE is designed to enhance students' capacity, requiring them to demonstrate knowledge and skills needed in the job market.

Suggestions for the implementation of outcome-based education

In order to successfully implement OBE or OBC, Wang's (2011) five-step suggestions may be a useful guide. In what follows, I present the suggestions with some modifications.

1. The identification of the program learning outcomes: The curriculum design must have its starting points at which students need to arrive, based on the "designing back' principle of Spady (1994). This means that the intended outcome is where curriculum planning begins, and the planning must link back to the start of an instruction or learning experience.
2. Design of the course intended learning outcomes: "It is crucial to (1) decide what kind of knowledge is to be involved, and (2) select the topics to teach and decide the level of understanding desirable for students to achieve and how it is to be displayed" (Biggs & Tang, 2009, p. 89). Baume (2005) points out the following characteristics: "a). Attractive – students want to achieve them, b). Comprehensible – students know the meaning, c). Attainable – students can learn to achieve them, and d). Coherent – they clearly fit into their program" (p. 12).
3. Design of teaching and learning activities to align them with the course intended learning outcomes: To ensure the alignment, certain questions need to be asked: (1) Is old and relevant knowledge used to build new knowledge in assigned tasks? (2) Are students active in doing the assigned tasks? (3) Can students reflect on their own learning progress through tasks? (Biggs & Tang, 2009). If the tasks fail to meet any one of the identified criteria, instructors should redesign the tasks.
4. Design of assessment strategies to be aligned with the course intended learning outcomes: This simply means that instructors must at all times ensure and align their assessment tasks with the intended learning outcomes because the results of performing tasks, to some extent, can tell them how effectively their students demonstrate their abilities.
5. Evaluation and reflection of the program or course: The effectiveness of the course can be ensured through the mid-term and final assessments. Killen (2007) suggests two approaches to reflection, including "reflection-on-action" and "reflection-in-action" (p. 96). While the former approach requires teachers to self-reflect and self-assess their own teaching performances after most lessons, the latter approach requires teachers to continually and simultaneously analyze students' learning experiences set by them, why instructors need to organize such experiences, and how reactive and responsive their students are. The instructors need to do it deliberately in order to understand the past, which ideally shapes their future teaching.

To successfully apply OBE to respond to higher education reforms, practitioners should use OBE principles consistently, creatively, simultaneously, and systematically by designing the significant culminating outcomes that they can rely on and by substituting or removing the discrete outcomes that are significantly unnecessary for the culminating outcomes.

Conclusion

To conclude, reforms to curriculum, learning, and teaching are a recursive, endless systematic process. In the era of Industry 4.0, education, if possible, should be one step ahead and become Education 5.0 to respond to the needs of active, knowledge-based, global citizens so that they can be prepared and ready for any challenges in the globalized world. Envisaging and implementing OBE can be one of the ideal ways forward in the context of Cambodia. OBE not only enables administrators, teachers, and students to meet the requirements of the National Qualifications Framework, but it can also help the concerned stakeholders to accomplish more. As stated by Ornstein and Hunkins (2018), the goals of education and academic achievement should encompass ethics, morality, humanities, aesthetics, and the like, not just knowledge, competence, and skills. Thus, I believe OBE is the most viable alternative in the context of Cambodian higher education reforms.

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