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UPPER SECONDARY SCHOOL IN CAMBODIA: LITERATURE GAPS

Abstract

Reaching lower-middle-income country status represents a significant milestone in Cambodia's socioeconomic development. The shift in policy focus from poverty reduction to sustainable inclusive growth driven by higher value added enterprise means that education and skills training are more important than ever. With a larger slice of the budget allocated to education, high-level political commitment and ongoing financial and technical support from development partners, Cambodia is now halfway through its ambitious Education Strategic Plan 2014-18 to ensure inclusive, easily accessible and high-quality education for all.

Challenges remain, of course. From our review of empirical studies on upper secondary education, complemented by insights from Education Congress 2016, four critical research gaps stand out: education quality curriculum and teaching methods; private tutoring or shadow education; and students' personal development, health and morality.

Introduction

Cambodia's general education system is divided into four stages: preschool, primary, secondary (lower and upper) and tertiary (higher) education. After completing lower secondary school, students have the option of continuing to study at upper secondary school (USS) or enrolling in a vocational training programme, offered by MOLVT and MOEYS in some provinces.

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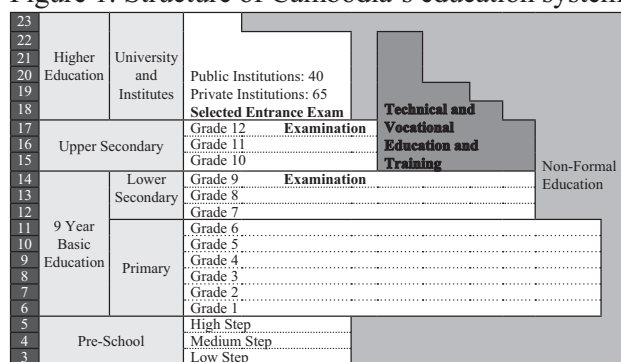
Education and skills training are now more important than ever.
Prey Veng, February 2016

The long-term education vision is to ensure better education at all levels. The government has steadily increased the budget allocated to education from 16 percent of total public expenditure in 2012 to 17 percent in 2015 and almost 18.5 percent in 2016 (MOEYS 2016). Measured against the three objectives of the Education Strategic Plan (ESP) 2014-18 – equitable access to education, relevant and quality teaching and learning, and improved educational leadership and management – the 2016

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Figure 1: Structure of Cambodia's education system



Source: ADPC 2008

Education Congress reported some progress in the selected breakthrough indicators at secondary level, as illustrated in Table 1.

Despite government commitment and financial and technical support from development partners, critical obstacles remain. The 2016 Education Congress acknowledged 11 challenge areas, ranging from administration and personnel management to infrastructure, financing and planning, curriculum development and quality assurance. Moreover, the high percentages of students failing the national high school exams in 2014 and 2015 show that the quality of secondary education is seriously lacking. Indeed, the Ministry of Education (MOEYS 2016) reports only slight improvements in USS enrolment rates, learning quality and repetition rates, while dropout rates remain unchanged.

This article reviews empirical studies on upper secondary education in Cambodia and identifies critical gaps in the literature. These findings serve national education research agenda and priorities and can thus be applied to future education reform. First, we examine four areas of research in turn: education and teacher quality, curriculum content and teaching methods, shadow education, and school health programs. Then we suggest directions for future research as research questions that need further investigation.

Table 1: Core breakthrough indicators against ESP 2014-18 objectives

Core breakthrough indicators	Status 2013/14	Status 2015/16	Target 2017/18
<i>Policy Area 1: Ensure Equitable Access to Education</i>			
No. of provinces with a lower secondary education completion rate of at least 40%	7	8	17
<i>Policy Area 2: Promote Quality and Relevance</i>			
Youth literacy rate (15-24 year olds)	92.1% (2012)	90.1% (2014)	97.5%
National learning assessment of students at grades 3, 6 and 8 for Khmer and maths	Grade 3 assessment implemented	Grade 6 assessment results disseminated	Grade 8 assessment to be implemented

Source: Education Congress 2016

Literature review

Education and teacher quality

Better education and technical training geared towards employability create a more skilled and qualified workforce. Improving education quality has thus long been a central topic of education research. The very low pass rate of 26 percent in the 2014 national high school exam when strict measures to curb cheating and corruption were introduced is stark evidence of the poor quality of secondary education (Madhur 2015). Noting the need for further quality-improvement efforts, Khieng, Madhur and Chhem (2015) recommend that greater attention be paid to increasing enrolment rates, reducing dropout rates, attracting high-quality teachers, strengthening pedagogy and enhancing school management and governance.

The quality of the country's education system cannot be improved without also addressing teacher quality. Many studies on USS highlight the challenges of teacher shortages and deficiencies (Brehm and Silova 2014; Madhur 2014; MOEYS 2016; Nou 2015; Phin 2014; You 2010). Despite determined and significant efforts by MOEYS, USS teachers are likely to have low educational achievement and rural schools are more likely to have insufficient numbers of teachers than urban schools (Nou 2015). Furthermore, the shortage of well-trained teachers disproportionately affects poor students, produces students who are often ill-equipped to qualify for higher education, and ultimately contributes to a cycle of poor education over generations (Madhur 2014). As Un (2014) points out, poor education quality is not necessarily the result of teacher shortages but of poor teacher quality. Other scholars deflect the blame for poor teaching quality from teachers (Bray 2007; Dawson 2010), and emphasise the link between teacher quality and institutional support for teacher learning and professional development (Phin 2014).

MOEYS' (2013) vision for high-quality teachers speaks to teachers' knowledge, skills, competencies and character, and redefines teaching as a valued and respected career choice. New recruitment and retention strategies aim at attracting the best and brightest to teaching,

developing teacher training centres and redesigning teacher education. Similar policy recommendations are echoed by Tandon and Fukao (2015): make teaching attractive, prepare teachers more effectively and encourage better classroom performance.

Literature suggests that research is critical to improving the quality of technical education and ultimately reducing skills gaps. Indeed, the Master Plan for Technical Education at Upper Secondary Level 2015-19 (MOEYS 2015) sets out the need for research in its well thought out strategy for merging technical education into USS to help prepare students for employment. This builds on earlier study by Va (2012) who found that technical education options at USS reduce skills gaps, dropout rates and poverty, and promote social stability and inclusion. Both reports highlight the challenges of high-cost technical facilities and their maintenance, adding that MOEYS should invest in and expand many areas, especially inspections and assessments, to identify the best-performing schools and teachers and failing school systems.

Curriculum content and teaching methods

Appropriate curriculum and pedagogy are essential to a quality education, which, in turn, has positive effects on the quality of life (Un 2012). Policy for Curriculum Development 2005-09 details curriculum provision for both lower and upper secondary schools, the aim of which is “to develop fully the talents and capacities of all students in order that they become able people, with parallel and balanced intellectual, spiritual, mental and physical growth and development” (MOEYS 2004, 4). Specifically, the upper secondary curriculum aims to provide students with a strong grounding in Khmer literature and mathematics, an understanding of national identity, life skills that enable participation in community life, a foundation in basic and natural sciences and proficiency in foreign languages (UNESCO 2008, 11). MOEYS is currently developing new national curriculum frameworks for general and technical education which are expected to be released in late 2016.

While the literature highlights the importance of curriculum reform, significant gaps persist between curriculum policy aims and goals and what happens inside the classroom. Take the case of textbooks – the core resources for teaching and learning. Un’s (2014) analysis of USS textbook content, especially

in mathematics and sciences, raises several questions about the quality and relevance of teaching materials. Apart from physical shortages, textbooks are aimed at lower order thinking while teaching methods are not equipping students with adequate employability skills such as critical thinking, teamwork and problem solving. Consequently, students’ achievements continue to miss employers’ expectations, a finding confirmed by other studies on the mismatch between the skills high school graduates possess and those employers need (ADB and ILO 2015; Khieng et al. 2015). To reduce skills gaps and shortages, Davis (2005 cited in Nou 2015) stressed the need to standardise secondary education and rethink curriculum design.

Cognisant of these challenges, the Education Strategic Plan (ESP) 2014-18 details a robust teaching and learning materials development program which aims to improve secondary and technical education. The program includes curriculum development, development and distribution of core textbooks in all subjects to general schools, and a standardised assessment system by subject.

Two important aspects of education almost missed in the literature are making the shift from “teacher as knowledge owner” to “teacher as learning coach”, and taking advantage of free massive open online courses (MOOCs). Recent studies discuss the need for teachers to encourage students to go beyond textbooks and explore knowledge (Ros and Chhem 2015; Chong 2013). This stresses the need to design professional training for teachers, learning coaches and mentors that imparts the necessary skills to teach and engage students using MOOC platforms (Ros and Chhem 2015), a digital revolution that is rapidly transforming global education in the 21st century (Chhem 2016).

Shadow education

Research on private tutoring or shadow education provides useful insights into its scope and nature. Several studies (Bray 2007; Bray et al. 2016; Brehm and Silova 2014) describe the massive growth and demand for private classes, which sometimes replicate public school classes because they are delivered by the same teachers using the same content. Brehm and Silova (2014) report how private tutoring is seen as extra education to compensate for the perceived inadequacy of the curriculum in public schools: classes in public schools imparted

theoretical knowledge, whereas private tutoring offered practical application of theoretical concepts. Drawing on film and documentary evidence about Cambodia, India and Turkey, Kobakhidze (2015) emphasises how universal public education can mask the reality as low-income families struggle to afford private tutoring fees.

Scholarly opinions highlight the pros and cons of shadow education. On the one hand, private tutoring is believed to help slow learners catch up with their peers, enable bright students to excel, and keep students concentrated on their studies rather than hanging out and attracted by drugs or early sexual activity (Bray and Lykins 2012; Dawson 2011, 2010). On the other, shadow education can generate inequality in education because well-off families can afford better classes and teachers than poor families. In addition, private tutoring might undermine teacher performance and teaching quality in mainstream classes while attending private classes restricts students' leisure activities and reduces bonding time with their families (Bray and Lykins 2012; Kobakhidze 2015). Another consequence of private tutoring is financial burden for low-income families (Bray et al. 2016).

Comparison of patterns of shadow education in 30 countries across Asia reveals that private tutoring has a long history, with intercountry variations reflecting different economic and cultural factors (Bray and Lykins 2012). Overall, private tuition might contribute to academic performance but at the cost of sidelining other important aspects of education such as physical health, morality and responsible citizenship. Even though there is no clear evidence that private tuition increases academic achievement, some parents believe that it contributes to their children's school performance (Bray et al. 2016). Indeed, private lessons and additional educational activities appear to be expanding and have become legitimate practices in many countries (Mori and Baker 2010).

School health program

A modest body of work highlights the role of health research in various education-related disciplines, including physical and mental well-being, life skills and sexual health. Research into the effects of arsenic exposure among secondary school children in Kandal province found evidence of arsenic neurotoxicity (Vibol, Hashim and Sarmani 2015). A related study confirmed that the provision of safe

drinking water in schools reduced absenteeism and dropout rates (Hunter et al. 2014).

Sexual health research among high school students is rare. Yi et al. (2010) studied the role of risk and protective factors in risky sexual behaviour among secondary school students aged 14 to 20 years. Of 1049 students, 12 percent reported being sexually active in the previous three months, 30 percent of whom had more than one partner and 50 percent did not use a condom. Among male participants, the likelihood of risky sexual behaviour was associated with higher family income, peer pressure, substance use, witnessing community violence and low level of family support.

Research findings give a new sense of urgency to sex education, which is moving towards online learning. An E-learning initiative for teaching sex education to high school students piloted in 24 secondary schools has already been expanded (Tolson 2014). In addition, understanding of sexual orientation and the impact of prejudice and discrimination at school on students who identify as lesbian, gay, bisexual or transgender (LGBT) is seriously lacking, as revealed by a recent study which highlights the intense bullying endured by LGBT youth in Cambodia's schools (CCHR 2015).

Mental and emotional problems among young people are a serious concern. The mental health research projects we identified focus on the risk factors for suicide and the prevalence of suicidality. One study exploring the links between suicidal ideation and behaviour among youth and societal attitudes, media and religion notes how media and religious teachings provide ambiguous, non-specific information about psychosocial stress and suicidal thoughts (Jegannathan, Kullgren and Dahlblom 2015). In response, the study suggests developing school-based suicide prevention programs and training school counsellors to be aware of the larger social, gender-identity, religious and familial issues that influence students' academic and personal development. A similar study examining suicidal thoughts among 320 grade 10 and 11 students at two upper secondary schools in Takhmau found that although boys reported making suicidal plans more often than girls, more girls than boys admitted to suicide attempts (Jegannathan and Kullgren 2011).

Research on adolescents' exposure to violence found that students, especially girls, who had been

exposed to violence in their families and communities experienced more depressive symptoms (Yi et al. 2013). Thus strategies for creating safe, non-violent communities and preventing family violence would significantly reduce depression among young people (Yi et al. 2013). For instance, life-skills programs at two secondary schools in Takhmau were found to improve students' mental well-being and, in turn, decrease teenage boys' high-risk behaviours (Jegannathan, Dahlblom and Kullgren 2014).

Discussion and future research directions

This article has highlighted critical gaps between education policy research and upper secondary education in practice. While many research needs are immediately apparent, four areas demand particular attention: quality improvement, curriculum and pedagogy, shadow education and students' social, emotional and academic development.

Research continues to confirm that lack of good quality education and trained teachers – the main stakeholders in education improvement – is the biggest challenge. Further in-depth analysis should consider the following key questions: What policy measures should be undertaken to improve the quality of secondary education? What are the social factors influencing students' academic performance and teachers' classroom practice?

Despite efforts, curriculum reform has been indeterminate at best, and the mismatch between what students have learned and the skills employers need remains a major concern. Further investigation could be framed around the following research questions: What are the policy options for continuous revision and update of the curriculum to keep it relevant? How best can the country strike a balance between standardisation and customisation of the curriculum? What is the status of TVET integration into upper secondary schools? What are the factors influencing the integration of TVET into schools? What is the scope for introducing more interactive teaching methods? How can ICT instruction be best anchored in MOOC? How much capacity building do Cambodian teachers need to be competent in interactive teaching methods?

To better understand the pros and cons of shadow education for both students and teachers, future research should address such questions as: What are the actual impacts of private tuition on teaching quality, curriculum, learning outcomes and equality

in education? What is the current situation and trend of shadow education in Cambodia? Research topics in this area include educational inequalities caused by private tutoring; perceptions of students, parents and teachers towards shadow tutoring; and the costs of shadow education. Also, future research on shadow education must pay attention to cross-national and cultural comparisons (Bray 2010).

School health programs are essential to academic achievement as well as students' physical, social, intellectual and mental health. The few studies that have been carried out were small scale and urban-centred. Thus future education-related health research should be expanded to rural areas. Action research would provide useful case studies.

In sum, research should be conducted regularly to provide evidence that can contribute to building capable human resources through effective curriculum, competent teachers and responsive education programs. National funding should therefore be allocated to support education research, especially at upper secondary school level.

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