

ACCESSIBILITY CHALLENGES TO SCIENCE EDUCATION IN CAMBODIA: AN INSTITUTIONAL ANALYSIS

1. Objectives

This paper intends to explore some of the challenges disabled people in Cambodia face to access education. The focus lies on science teacher education, although many arguments apply more widely. The aim is to provide a framework to analyse accessibility challenges learning for disabled learners.

2. Significance

During the Khmer Rouge regime (1975–1978) schools were abolished and teachers became prime targets for the regime’s persecution. Since the elections in 1994 the country has made strong progress, reflected by climbing primary enrolment and completion rates (IIEP-UNESCO, 2011), putting Cambodia on track to achieve universal primary education by 2015. However, education quality is generally acknowledged to be low (RGC, 2010).

About 15% of the world population are estimated to have a disability (UN-ESCAP, 2012). In developing countries the percentage is probably higher, as people are more vulnerable and curable or preventable diseases are more likely to result in permanent disabilities. In Cambodia census data from 2008 indicate that 1.4% of the population has a disability, while the 2009 Socio-Economic Survey recorded a prevalence of 6.3% (UN-ESCAP, 2012).

In 2012 the Cambodian National Assembly decided to ratify the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). As the Convention enters into force on 19 January 2013, it will legally bind the government to work on inclusive education. Regional political attention for disabled people has picked up as well. The Association of Southeast Asian Nations (ASEAN) has declared this decennium the ASEAN Decade of Persons with Disabilities and has endorsed the Incheon Strategy, which aims at implementing UNCRPD through 10 interrelated goals.

3. Theory

North’s framework of institutional change seeks to outline why economies ‘fail to undertake the appropriate activities if they had a high pay-off’ (North, 1994). Institutions are the unit of analysis and a key element in achieving economic progress. They consist of formal rules, informal constraints and the enforcement characteristics of both (North, 1994). Formal rules include legislation, guidelines and standards. Unlike formal rules, informal constraints, like norms of behaviour, conventions and self imposed codes of conduct, are deeply embedded in society and may take decades to change (Konur, 2002). Alignment between formal and informal drivers is required to progress. Theory of Institutional Change offers a framework to analyse challenges to science education beyond technical accessibility and the existence of legislation.

4. Design and procedure

North's framework allows to discuss formal rules, informal constraints and enforcement characteristics of the Cambodian education system and explore reasons for the limited effect of legislative initiatives.

5. Findings

Formal rules can be changed quickly, but informal constraints evolve slowly and interests of the existing organizations create a 'path dependency' that determines the direction of change (North, 1994). In Cambodia, notwithstanding efforts to promote decentralization and collaborative governance in the education sector, 'current structures continue to promote centralized control, reflecting the centralizing and authoritarian tendencies of the government in place. At the local level, community involvement and accountability remain inadequate despite several reforms and initiatives' (IIEP-UNESCO, 2011, p.16). Existing structures usually benefit from the status quo and, as a result, institutional frameworks tend to change only in small, incremental bits (North, 1994). However, external factors, unintended consequences of policy actions and gradual changes in social norms may challenge the status quo (North, 1994). In Cambodia, regional economic integration may encourage institutions to improve education quality. Participation in international benchmarks for education performance will make more reliable and comparable education data available. Improving job opportunities and international contacts may gradually convince parents to invest in education for disabled children. Informal constraints are arguably strong in Cambodian education and include prejudices against education for disabled people, learning online and student-centred instruction methods. There is an oppressive cycle of stereotyping, prejudice and discrimination (Stubbs, 2008) that makes that 'good policies are often hamstrung by poor and/or inadequate implementation, a theme that has become increasingly common in Cambodia' (IIEP-UNESCO, 2011). Socio-economic constraints include a poor return on education investments due to low social mobility and lack of employment opportunities, fatalism about the value of education and an entrenched system of informal payments (Benveniste et al, 2008). Constraints increase in higher education where costs rise, 'because of a well-founded belief that good employment is based largely on connections and the ability to pay' (IIEP-UNESCO, 2011, p.33).

Informal constraints extend to education for disabled children. Educators and administrators may have their own opinions on whether disabled students are eligible for certain programs and what constitute 'reasonable adjustments' (Konur, 2006). Confusion over the difference between guidelines and standards, which to adopt and how to interpret and apply them has been limiting their effect in practice (Seale, 2006). Furthermore, parents in developing countries tend to concentrate investments in the education of one (non-disabled) child, as they (wrongly) assume that this is a better economic investment than providing an equitable education for all their children (Banerjee and Duflo, 2011). Employment opportunities for disabled graduates are scarce as Cambodian employers are neither inclined nor enforced to hire them. Technology-poor contexts compel to rethink approaches to accessibility, taking into account limited resources, conflicting priorities, relevance and implementation challenges (Kelly et al., 2010). Copying western approaches may prove unsuitable for Asian

learners (Baggaley, 2007; Berkvens et al., 2011). An accessibility approach focusing on compliance with accessibility guidelines such as WCAG 2.0 might be too simplistic in developing countries where legacy software such as old browsers are prevalent and materials that are not compliant with these guidelines may still greatly enhance accessibility (Kelly et al., 2010).

In Cambodia misalignment between formal rules and informal constraints is compounded by weak enforcement characteristics. A language barrier and low information literacy skills cause many educators to have only vague notions of standards and good practices, making it difficult to adopt a code of self-conduct. Institutions tend to concentrate assessment on complying with administrative procedures rather than rewarding good accessibility practice. Students and parents lack organisational structures to lobby effectively. Case practice and paradigm cases to help institutions enforce legislation are unavailable. The Disability Action Council could play a role to monitoring the implementation of the UNCRPD through the Incheon Framework.

Only institutions engaged in a struggle for survival will invest in knowledge and skills that will keep their organisations functional in a competitive environment. 'The kinds of skills and knowledge that will pay off most will be a function of the incentive structure inherent in the institutional matrix' (North, 1994). Competition and struggle for survival can be generated by free markets (private sector education) or strong accountability structures (public sector education). This accountability is lacking in Cambodian public education. Educational institutions face high costs and few immediate benefits to invest in accessibility. For lack of institutional support, disabled students tend to rely on networks of family and friends to solve their problems. Parents' choices of educational institutions are limited by economic and administrative reasons. There are no independent 'watchdog' organisations to monitor performance. Institutions have few incentives to invest in pedagogical knowledge and skills. Teaching performance, let alone compliance with accessibility standards, is hardly evaluated. As teaching staff are centrally appointed for life, institutes have no means to reward well-performing lecturers by paying them more or promoting them, and neither can they punish staff who fail to show up or teach badly.

North's framework of institutional change offers lessons for accessibility in education and development assistance, as it highlights the primacy of overcoming institutional blockages over resource shortages (North, 1994). Informal constraints and enforcement characteristics affect the degree changes in formal rules will lead to desired outcomes. Awareness raising activities and positive role models, such as disabled staff and graduates, can help to dispel stereotypes (Stubbs, 2008). However, it is difficult to distinguish between constraints deeply rooted in society and superficial societal habits that are easier to change. More insight in prevailing prejudices against online accessible learning in Cambodia would therefore be useful.

Enforcement characteristics are crucial as they determine incentive structures for players in the accessibility game (Konur, 2002). In Cambodia, the absence of an independent and accessible judicial system, widespread corruption and lack of information on rights and procedures complicate effective enforcement. The strong presence of local and international donors in Cambodia adds an additional layer to the institutional framework (Ostrom et al., 2002). Donors may look for other ways to improve enforcement characteristics, such as helping disabled students to organize and inform themselves.

Better data collection, as put forward in the Incheon Framework may increase pressure on policy makers (Ostrom et al., 2002).

6. References

- Baggaley, J. (2007). Distance education technologies: An Asian perspective. *Distance Education*, 28(2), 125–131.
- Banerjee, A. V., & Duflo, E. (2011). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* (1st ed.). New York: PublicAffairs.
- Benveniste, L., Marshall, J., & Caridad Araujo, M. (2008). *Teaching in Cambodia*. Human Development Sector East Asia and the Pacific Region, The World Bank and Ministry of Education, Youth and Sport, Royal Government of Cambodia. Retrieved from <https://openknowledge.worldbank.org/handle/10986/8073>
- Berkvens, J. B. Y., Kalyanpur, M., Kuiper, W., & Van den Akker, J. (2011). Improving adult learning and professional development in a post-conflict area: The case of Cambodia. *International Journal of Educational Development*.
- International Institute for Educational Planning (IIEP - UNESCO). (2011). *Education and Fragility in Cambodia*. Paris: UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0021/002110/211049e.pdf>
- International Institute for Educational Planning (IIEP - UNESCO). (2011). *Education and Fragility in Cambodia*. Paris: UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0021/002110/211049e.pdf>
- Kelly, B., Lewthwaite, S., & Sloan, D. (2010). Developing countries; developing experiences: approaches to accessibility for the real world. In *Proceedings of the 2010 International Cross Disciplinary Conference on Web Accessibility (W4A)* (pp. 3:1–3:4). New York, NY, USA: ACM. doi:10.1145/1805986.1805992
- Konur, O. (2002). Assessment of Disabled Students in Higher Education: current public policy issues. *Assessment & Evaluation in Higher Education*, 27(2), 131–152.
- Konur, O. (2006). Teaching disabled students in higher education. *Teaching in Higher Education*, 11(3), 351–363.
- North, D. C. (1994). *Institutional Change: A Framework Of Analysis* (Economic History No. 9412001). EconWPA. Retrieved from <http://ideas.repec.org/p/wpa/wuwpeh/9412001.html>
- Ostrom, E., Gibson, C., Shivakumar, S., & Andersson, K. (2002). *Aid, Incentives, and Sustainability: An Institutional Analysis of Development Cooperation*. Stockholm: Sida. Retrieved from <http://www.sida.se>
- Royal Government of Cambodia, Ministry of Planning (RGC). (2010). *Achieving Cambodia's Millennium Development Goals*. Phnom Penh: Supported by UNDP. Retrieved from <http://www.un.org.kh/undp/media/files/CMDG%20Report%202010.pdf>
- Seale, J. (2006). *E-Learning and Disability in Higher Education: Accessibility Research and Practice*. Abingdon: Routledge.
- Stubbs, S. (2008). *Inclusive Education. Where There Are Few Resources* (2nd ed.). Oslo, Norway: Atlas Alliance. Retrieved from <http://www.eenet.org.uk/resources/docs/IE%20few%20resources%202008.pdf>
- United Nations, Economic and Social Commission for Asia and the Pacific (UN-ESCAP). (2012). *Disability at a Glance 2012*. Bangkok, Thailand: United Nations, Economic and Social Commission for Asia and the Pacific (UN-ESCAP).