#### Transcending Borders and Building Bridges: Creating a Technological Infrastructure to Support a Community of Practice Across Nine Nations

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#### Abstract

Progressions in technology provide researchers with increased prospects to locate and conduct research across borders. This paper has two aims; firstly, it details the process of creating a technological infrastructure in supporting a particular community of practice as they engage with and learn from others who are distant in time and location. Secondly, the paper describes the different technological platforms such as videoconferencing, social networking, web publishing and data management that allowed for planning, managing, communication and conducting of research across nine nations. Web- blogs enabled researchers to report and reflect during the data collection process; social media such as Facebook provided a communal virtual space for the community to share updates and disseminate information; emails and the video phone service Skype facilitated open discussions with fellow peers in other parts of the world while Dropbox managed and archived data such as images, videos, text and audio.



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#### Introduction

In the early twentieth century, qualitative researchers attempted to find out about foreign cultures and groups of people. Nonetheless, identifying and recruiting hard to reach populations for research purposes proved challenging for researchers as they had be physically present to report from the field in order to observe and talk to the people about their lived lives. Fortunately, today, progress in technology has given qualitative researchers new tools, such as social networking sites, web cameras, electronic mailing systems that allow researchers the ability to contact, connect, observe and interview individuals who are geographically dispersed and/or hard to reach.

The use of these technological platforms in this article may serve to assist researchers in two important ways; firstly by detailing the process of how to create a technological infrastructure in supporting a particular community of practice as they engage with and learn from others who are distant in time and location. Second, to describe the roles of the platforms that allowed for planning, managing, communication and conducting of research across nine nations

#### Literature Review

Research with hard-to-reach, or "hidden" populations have been well-documented (Matthew & Cramer, 2008) especially when attempting to conduct research with populations such as members of marginalized or stigmatized groups (Benoit, et al, 2005, cited in Matthews & Cramer, 2008). Today however, advancements in technology have provided researchers with increased prospects to locate and conduct research across borders and with populations that are either geographically remote or inaccessible for personal or other reasons. The Internet provides opportunities for technological platforms that allow for borderless research. In the workplace, information and communication technologies (ICTs) have transformed professional activities and opened opportunities for people to communicate, collaborate and find and share information. Web 2.0's easy navigation enables users to contribute, disseminate and ingest information by providing platforms for rapid feedback and learning through observation (Su & Beaumont, 2010). Besides that, the Web 2.0 which generally includes social networking sites (SNSs) and web blogs has managed to shift focus on active participation, connectivity, collaboration and sharing of knowledge and ideas among users (Richardson, 2006). The emergence of blogs as an online self-publishing vehicle with interactive capability has provided new possibilities for self-expression and social interactivity. In recent times, this form of communicating has become a global phenomenon, with millions of people accessing these sites on their phones, tablets and personal computers to interact with friends or acquaintances (Sennett, 2012, cited in Goodyear, et. al, 2014). Facebook, for example, supports socialisation, and is known worldwide. It provides an opportunity for those who share similar interests, backgrounds, hobbies, etc to network with one another on the site. In the education sector, Facebook enables lecturers to interact with their students by creating groups related to certain topics (Esposito, 2007, cited in Balakrishnan, 2013). Scholars and policy makers have advocated and argued upon the potential benefits of using and embedding technology within the practice of teaching and learning (Russell, Bebell, O'Dwyer, & O'Conner, 2003; Tsoulis, Tsolakidis, & Vratsalis, 2012). In second language teacher education, ICT tools ranging from blogs

to virtual learning environments have been employed to support second language teacher education (Johnson, 2006; Kuzu, 2007). Many studies have shown that Information and Communication Technologies (ICT) such as blogs could promote pre-service teachers' reflective practices and help them better connect theory with practice (Soubrié, 2006, cited in Bangou, 2011).

# The Project

The research project is a collaborative effort between Brunei Research Council and Universiti Brunei Darussalam (UBD), the Asia Pacific Regional Network for Early Childhood (ARNEC) and supported by UNICEF (ROSA). This is a regional research project that studied eight selected early childhood programmes from countries across the region between March – June 2015; namely, Bhutan, Cambodia, India, Indonesia, Pakistan, Philippines and Nepal. The purpose of this project was to provide insights into factors that support effective early childhood programmes, with a focus on those that are underpinned by commitment to equity, sustainability and inclusion.

# **Project Background**

According to Shonkoff (2010), early childhood policies and programmes, especially those that cater for children in complex, low resourced and/or threatening environments, are in urgent need of "dramatic rethinking" (p.362). The reason being, traditional, standardized early childhood education approaches that are widely associated in high-income countries with "best practice" are neither practical nor suitable for many communities across the Asia Pacific region.

While there are examples of early childhood programmes that have adopted innovative approaches to overcoming important issues such as access and cultural relevance, documentation of these innovations has not been rigorous enough to support their wider implementation. Hence, Shonkoff's (2010) calls for research that are designed to gather evidence on novel, contextualized approaches to supporting young children's early development and learning.

The research proposed here responds to these calls by supporting documentation of innovative examples of early childhood programmes across the region that can advance knowledge in provision of effective, sustainable supports for early childhood. The proposed focus is specifically on approaches that cater specifically for children from 'marginalized' or 'at risk' communities, which are either grounded in community priorities / circumstances, or have been successful in garnering community support / involvement.

# **Purpose of the Research**

The purpose of the research is two-fold; firstly to support current efforts in documenting examples of early childhood programmes across this region and secondly, in relation to the first purpose, the second goal of this research is to focus specifically on innovative approaches of early childhood care and education.

The aim of this research is to better understand what can be learnt from these selected "noteworthy" practices about how to effectively provide early childhood supports in hard to reach, resource constrained communities. Ultimately, the project hopes to

contribute to building an evidence base on what works, how and why in terms of providing early childhood supports for children from hard-to-reach contexts in the Asia Pacific region through in-depth documentation of existing Noteworthy Practices, with a particular focus on documenting community perspectives and programme-community linkages.

# **Research Design**

The research was conducted in eight countries/sites around the region where Noteworthy Practices had been identified by ARNEC and the research team, following a regional-wide call for Expressions of Interest distributed via ARNEC and other early childhood networks. In line with current priorities outlined in regional discussions and forums, innovative programmes involving the local community that reflect a commitment to Sustainability, Inclusion, and Equity were selected and identified. Local researchers were required to document these innovative examples of early childhood programmes across the Asia Pacific region that advance knowledge in provision of effective, sustainable supports for early childhood.

The project adopted a Case Study methodology whereby each selected Noteworthy Practice site was treated as an individual "case" and the local researchers from countries where the selected programmes, with assistance from the team at Universiti Brunei Darussalam (UBD), were to conduct in-depth studies of each case. Researchers were to be based within the communities that they are working with for a period of 3-4 weeks during initial phases of research and would then be working with and visiting communities regularly over a period of 4-6 months to gain access (to make inroads gain acceptance by the community); the following stage was for the researchers to engage in intensive data collection, finally, the researchers working with the team from UBD would write up the findings in the form of case studies which are articulated through narratives and/or vignettes.

Among the main responsibilities of the UBD team towards the project and the researchers were to facilitate two (2) regional technical workshops on research design, methodology and data analysis; provide ongoing research support for local researchers via online/virtual communication platforms and to provide on-site technical assistance during the period of field work. In order to do that, the team had to create a technological infrastructure in supporting a particular community of practice as they engage with and learn from others who are distant in time and location. The following sections details the process and the contributions of these platforms.

#### Roles of technological platforms in the research

The research comprised three stages:

Stage 1: Recruitment and induction of country research teams and induction The research required a total number of two people comprising 1 researcher and 1 programme staff. Recruitment and/identification local researchers was conducted through a call of interest via the specific websites, for example, ARNEC. Interested parties were required to respond to the call and email the required information to ARNEC Secretariat which would then share these details with the UBD team. Prior to the call, numerous initial discussions on the research project were held via Skype meetings between ARNEC, UBD and members of the steering committee who are located in India and Nepal on matters pertaining to the research. Out the many respondents, 8 programs were selected, alongside 8 local researchers. As part of the induction process, the First Technical Workshop for Noteworthy Practice Documentation 2015 methodology workshop was held. The workshop allowed for participants to not only understand the research approach in depth but also to have the opportunity to engage each other in their roles as researchers, stakeholders and programme staff, through a collaborative process. Together with the workshop facilitators from UBD, the participants provided and shared contexts that enabled the engagement of knowledge and experience from their particular country's program.

An essential part of the workshop was a session on setting up of the technological platforms which would enable all parties to update, connect and network with each other. As the focus of this research design is on gathering community and programme staff perspectives, notwithstanding the researcher observations and reflections, various social networking (Facebook and Web blogging) and data management (Dropbox) were introduced to capture these forms of data. Researchers were taught how to set up personal Facebook pages (for those who did not have one), while a group page was also set up to provide a platform for the participants to share contexts that enable the engagement of knowledge and experience from their particular country's program. Besides Facebook, the researchers were also required to set up personal blogs to record their reflections throughout the research process. These entries served to provide information on the research sites, besides providing a private space for personal thoughts and feelings as well as to receive feedback from fellow researchers from the said community of practice. An important aspect of these social sites to consider is the issue of privacy, for this project, access was given only to the community.

The research approach sought to gather information on linkages that are formed between programmes and communities, in order to highlight how these linkages support effective practice, and to identify potential areas for further strengthening. In order to facilitate data storage from all 8 sites (Bhutan, Cambodia, India, Indonesia, Nepal, Pakistan, Philippines), the UBD team designed its own workflow process through the use of information technology. Dropbox, in this case, was chosen to manage the data collected as it was accessible from multiple distributed and connected resources and provided free cloud storage service for sharing and storing files including photos, documents and videos. The participants were also taught how to set up their Dropbox accounts and access the data available.

Stage Two : Continual on-going in-field support was provided by research team based at UBD followed by a second follow-up workshop to discuss findings and plan reports.

In order to provide continual support to the researchers, the team from UBD relied very heavily on emails and Skype. Some researchers preferred Skype as a platform for face to face discussion as well as being able to speak instead of writing. Social networks such as web blogs provided the community with on-going information on the progress of each researcher and Facebook was used to reach out to the whole group whenever the need arose. Prior to visits to the sites by the UBD team, the

researchers would update their blogs and Facebook page with regards to the sites. As part of the continual support for the researchers, the team from UBD would advise on data analysis and reporting to ensure consistency across sites through emails and occasionally, make important announcements on Facebook as it seemed to be a popular platform for the community.

### **Stage three: The Final outcome: reports from the researchers**

The outcome of the research was for each researcher to produce a report. The blogs which provided a space for reflections and 'storage' of details during the research process provided the necessary information for anecdotes and vignettes in the report. Dropbox which stored interview recordings, photos and other relevant information gave the community access to data to share and disseminate information as well as to back up data. Emails and Skype became essential for communication between the researchers and the UBD team as drafts were sent back and forth for comments, suggestions and even correction. Without these two forms of electronic communication between both parties was necessary for purposes of clarification and explanation.

# Limitations and challenges of technology as means of support in the project

All researchers found technology helpful as it played a pivotal role in communication; from the conception of the project to the final stage of report production. In addition, technology helped build personal bonds and friendships as members it provided a channel for communication at all times, albeit the geographical distances. Among the preferred form of technology were emails, Facebook and Skype. Whilst they acknowledged the necessary role of technology during their research process, for example, most started the research process by sending emails to the respective program managers, informing of their intents and action plans, there were also constraints such as the speed of internet, lack of internet access in some remote areas, delay in replies through emails (even to the extent of some mails being ignored). Additionally, some researchers had very little experience with some of the technological platforms prior to the project, for example Web blogging and Facebook, thus were adverse to the idea of using them as forms of communication with fellow researchers.

In conclusion, while technology has the potential for providing a mechanism for researchers to connect and network with others who may share similar life experience by providing a communicative space, external to the physical site of an emerging community of practice (CoP) to support researchers' professional learning and practice, practical constraints such as exposure, researchers personal preference, access and even availability of the technology must be considered. However, it cannot be denied that progressions in technology have provided this research project alongside its researchers, prospects to locate and conduct research across borders through technological platforms that have bridged physical distances and connected this community of practices.

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