

Adults and children creating personalised stories together through information and communications technology in public libraries

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Abstract:

*This paper draws upon findings from a research project, *Involve Me*, to discuss how the project has developed greater community engagement, using information and communications technology as a catalyst with children aged two to six years to support family learning and adult-child interaction. Five workshops were developed and delivered in three public libraries in Taiwan, with weekly visits made to one of the libraries over a five-month period in 2013. Technological resources used were handheld devices (i.e. smart phones and tablets). An accompanying app (i.e. *Our Story*TM) was purposefully selected for use to encourage adult-child dialogue and generate enjoyment, allowing them to create their personalised stories. Qualitative research methods, including interviews, participant observation, recording and social networking, were used to capture workshop participants' actual behaviours, involvement processes, and their perspectives. The analysis identified three main themes relating to the promotion of community engagement and family learning in public libraries. First, adults and children interacted in a co-constructive process creating their stories through *Our Story*TM, which helped enhance children's logic, understanding and creativity in learning. Second, children developed a sense of ownership through recording, creating and sharing their stories, which helped enhance their confidence, pride and sustained engagement with the activity. Third, observational learning occurred both in the workshops and on the Facebook page, where study participants observed and learned from each other's experiences and practiced use of *Our Story*TM to create their own stories. Succinct recommendations for the public library sector were also provided.*

Keywords: public libraries, ICT, family learning, adult-child interaction, preschool children

Introduction

The importance of community engagement has been increasingly highlighted in the library service policy directives as an essential consideration when striving to meet community needs. In Taiwan, ‘community’ has been the focus of a *White Paper to Library Development* (Library Association of China¹, 2000), where practical aspects were proposed for promoting the role of public libraries as community builders and for supporting lifelong learning. Research has also shown the objectives of community engagement for public libraries include: tackling social exclusion (Birdi, Wilson, & Cocker, 2008; Vincent, 2009); promoting democracy (Kranich, 2005; Sung, & Hepworth, 2013); and contributing to social/human/cultural capital (Hillenbrand, 2005; Goulding, 2008).

Elsewhere, recent evidence presents numerous benefits of family learning and information communications and technology (ICT) to child development. As seen in the projects in the UK, e.g. Effective Pre-school and Primary Education Project (EPPE) (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010), and Supporting Playful Learning with Information and Communications Technology in the Early Years (Siraj-Blatchford, Morgan, & Kyriacou, 2013), ICT is already being used to enrich early childhood practices in homes and in preschools, for shared reading at computer screens. Bowman, Donovan and Burns (2001), citing an early proponent Papert (1980), suggested that “Computers help even young children think about thinking.” In one study, pre-schoolers who use computers score higher on measures of metacognition (Flatcher-Flin, & Suddendorf, 1996; Bowman, Donovan, & Burns, 2001). In 2012, the National Association for the Education of Young Children (NAEYC) and the Fred Rogers Center put forward a joint statement arguing that when used intentionally and appropriately, technology and interactive media are effective tools to support children’s learning and development.

Bridging these two areas of literature together, this paper draws upon findings from our research project, *Involve Me*, to discuss how greater community engagement can be achieved using ICT as a catalyst with children with support adults. It also intends to support the child as a ‘digital native’ growing up in a new literacy culture, where adults may be considered digital immigrants. It is worth noting that ICT is being used essentially as a catalyst to initiate and sustain meaningful adult-child interaction and dialogue for learning in this study. The project worked with children aged two to six years, and adults which included family members, caregivers and others such as librarians, library volunteers and preschool teachers. After a discussion of new literacies, the *Involve Me* project’s methodology and results are described.

New literacies

The term ‘new literacies’ is conceptualised differently in the literature. One school of thought follows a psycholinguistic orientation, which is informed by cognitive and language processing theories (e.g. Leu, 2000). Another follows a sociocultural orientation that focuses on literacy as social practices (e.g. Lankshear, & Knobel, 2006). This study views new

¹ Library Association of Republic of China (LAROC) was known as Library Association of China (LAC) prior to 2005.

literacies from a social culturalist's perspective. While acknowledging wide variations in practices with reference to literacy, Lankshear and Knobel (2006, p.66) concluded "the link between identifiable literacies and recognized ways of engaging remains intact". The 'recognised ways of engaging' refer to children's generating, communicating and negotiating meaningful content through the medium of encoded texts (Lankshear, & Knobel, 2006), which focuses on its collaborative and participatory nature.

Consistent with a social culturalist's perspective on new literacies, what is 'new' in this study is that it endeavours to encourage much more creativity – that is, the child participates in the activity. To be specific, adults and children interact and are engaged in a co-constructive process. New technology is changing and will continue to change the way human beings think and interact with the world around them. From this perspective students should not be considered passive learners in the future; instead, they should be considered active co-constructors of knowledge. From a Vygotskian perspective (2004), "Second hand knowledge (as opposed to experience) is only ever gained through the operation of creativity and the imagination."

Based on the 'creativity in learning' perspective, it is argued that preschool children always are active co-constructors of understanding. Interactions of this sort have also been described as 'distributed cognitions' (Salomon, 1993), 'guided participation' (Rogoff, Mistry, Göncü, & Mosier, 1993), 'scaffolding' (Wood, Bruner, & Ross, 1976), 'dialogic teaching' (Alexander, 2004), 'dialogic enquiry' (Wells, 1999), 'interthinking' (Mercer, 2000), 'mutualist and dialectical pedagogy' (Bruner, 1996), 'the learner as cultural member' (Heath, 1989), and 'legitimate peripheral participation' (Lave, & Wenger, 1991). However, it is argued that educationalists have often confused the passive 'acquisition of knowledge' with the active 'development of understanding' (Siraj-Blatchford, 2007).

In addition to participation, children also learn through keen observation, which was conceived as an active process of peripheral participation (Lave, & Wenger, 1991) as it requires active management of attention (Rogoff, Mistry, Göncü, & Mosier, 1993). In the research of Rogoff, Mistry, Göncü and Mosier (1993), two patterns of children's development were identified: one focuses on learning through instruction (i.e. adults taking responsibility for organising children's learning); the other focuses on learning through observation (i.e. children taking responsibilities for learning, with their caregivers' responsive assistance). Common to the two patterns is bridging shared understanding between adults and children and adjusting their participation, with which this study agrees.

Research methods

This paper discusses how *Involve Me* has developed greater community engagement, using ICT as a catalyst. In order to achieve the research aims, five workshops were developed and delivered in three public libraries in Taiwan. The *Involve Me* workshops were specially designed to involve adults and young children in learning together through interactive and playful use of ICT. Our endeavour is:

- to show the value of using ICT with young children;
- to demonstrate evidence-based principles of child development and learning;
- to present a range of apps that support adult-child interaction; and
- to build a community of practice for participants to exchange ideas and share experiences through the project's Facebook page.

See Table 1 for a breakdown of workshop participant numbers. Having learned that some families had limited access to ICT at home and that some had limited basic ICT skills, the researcher paid weekly visits to one of the public libraries to provide access to ICT and facilitate adult-child dialogue and interaction over a five-month period in 2013.

Table 1 Breakdown of workshop participant numbers

Site	Date	Stakeholder					Total
		Librarian	Library volunteer	Preschool teacher	Parent	Children	
Kinmen Public Library	31 Aug	1	0	1	7	13	22
National Library of Public Information *	24 Sep	2	0	0	9	8	19
	27 Sep	0	0	0	5	6	11
	02 Nov	0	0	0	7	9	16
Taipei Public Library	29 Sep	3	5	0	10	8	26

* Although there were three workshops at the National Library of Public Information, no participants attended more than one session.

During the workshops, the technological resources used were handheld devices (i.e. smart phones and tablets). An accompanying app (i.e. Our Story™) was purposefully selected for use to encourage adult-child dialogue and generate enjoyment, allowing both to create their personalised stories. Workshop participants included children and their caregivers. During the workshops, adults and children were given instructions on how to use the Our Story™ app. Activities were also introduced to encourage them to create personalised stories from using their daily and outdoor experiences after the workshop. All the stories submitted (in Mandarin) are publicly shared on the project's Facebook page (<https://www.facebook.com/huiyun.sung>), which received positive comments. All posts were then translated into English and posted on the project's blog through WordPress.com (<http://involve226.wordpress.com/>).

Qualitative research methods, including interviews with parents, participant observation, audio- and video-recording, and social networking, were used to capture study participants' actual behaviours, involvement processes, and their perspectives. Data collected were reflectively analysed and coded, in an inductive fashion, using thematic analyses. While the first author of this paper has provided an insider account of the process of the research project, the co-author who collaborated in the initial development of the project, acted as a critical friend at the analysis stage, and provided a critical outsider perspective (Merton, 1972).

Results and discussion

Thematic analyses of the data collected from the project identified three main themes relating to the promotion of community engagement and family learning in public libraries, namely: engaging in a co-constructive process; developing a sense of ownership; and encouraging observational learning. Each of these is discussed below.

Engaging in a co-constructive process

Adults and children interacted and were engaged in a co-constructive process when creating their stories through Our Story™. During the workshop, children were initially encouraged to look for, and decide of what they would like to take pictures. Some children chose objects (e.g. books, flowers), shapes (e.g. round, rectangular) and colours (e.g. red, blue), and some decided to take pictures of themselves. Adults and children then sat together and assembled the pictures into a book. Each picture was then looked at and each child was asked to explain the picture which he or she selected. Their verbal explanation was audio-recorded in the Our Story™ app. It was interesting to note that some children were good at expressing themselves and some were so shy that they could not say a word. In such situations, some older children played an important role by encouraging younger children to explain pictures for them.

After completion of audio-recording, older children (ages 5-6) were encouraged to write texts based on the picture and their explanations. Some were capable of writing Mandarin characters and appeared keen to apply their writing skills to this task. Adults were asked to complete writing tasks for their young children based on what they just explained. In the end, the group gathered together to brainstorm to create a title for each book.

It was clear that the activity was planned and organised by adults in the workshop. However, children were encouraged to think and express themselves by giving them opportunities to make decisions and asking a lot of open-ended questions to answer, for example “*what would you like to take pictures of?*”, “*what is the picture about?*”, and “*what title shall we give the book?*”. One mother of twin girls commented that “*By participating in activities such as making stories, children can enhance their logic and abilities to express.*” The co-constructive process was considered helpful for enhancing children’s logic and understanding in learning.

During the researcher’s weekly visits to a library, one mother reported her experience of using Our Story™ outdoors with her two sons who were five and six. As she noted,

I took the iPad with us when we visited a park. Within my eyesight, I let my sons explore themselves and take pictures of what they saw and liked. We then sat together and I asked them why they took a picture of this. They started to think and organise what to say. They then continued making a story. They asked me questions when they did not know how to express and I would answer their questions. [...] When I listened to their completed story, I thought it was very creative. It was through listening to their audio explanation of those pictures that I realised children think in a very different way from adults.

Different from the process observed in the workshop, where adults took responsibility for planning and organising children’s learning, her two sons took responsibility for learning, including controlling screen time and appropriately using apps. Their mother further commented that “*when you give tablets to children, you have to trust them. They can do it. They are full of creativity and imagination.*” This kind of co-constructive process was considered helpful for supporting children’s creativity in the learning process.

According to Rogoff (1990), children’s roles grow, and their opportunities to practice are amplified by their interest in participation and by caregivers’ setting them tasks that are within their capabilities and guiding their contributions in the context of joint activity. Indeed, it was observed that children engaged in the story-making activity more when they were

capable of completing the task given. It was through participation that they could enhance their learning and development.

Developing a sense of ownership

Children developed a sense of ownership through the process of recording, creating and sharing their own stories. To this end, one mother indicated that the use of Our Story™ helped enhance adult-child interaction and dialogue. As she explained,

Personally, I don't like children to use ICT tools. But, I think Our Story™ is very good in terms of enhancing adult-child interaction and making a record of children's development. Adults usually take pictures of or video record children's activities, and get bored after a while. Our Story™ not only helps record but also give children opportunities to participate in the recording process. Such an interactive process offered us a lot of fun when we shared the stories together – children were happier and we [adults] got to understand what was recorded. [...] Children are more likely to interact with adults because of the tool [Our Story™].

It could be inferred, based on the mother's experience, that children took pride in the products of their own making, as they could witness the outcome of their own efforts. As another mother also said, "*children gain a sense of success when they complete a task given by adults.*" Additionally, such adult-children interaction helped sustain children's engagement with the activity. These observations were also evidenced when children shared their stories during the researcher's weekly visits to a library. They showed their passion for sharing their stories, they repeatedly played the same stories of theirs, and they were proud to say "*I have made a story this week.*" One mother added that "*my daughters were excited to know what people responded to their stories on Facebook*".

It was also worth noting that the self-concept played a key role in young children's development. Some children constantly looked for themselves in the photos or stories. For instance, the researcher facilitated a 2.5-year-old boy with recording his experience at a local shop through Our Story™. When his mother showed him the story, he could recognise his own voices and remembered that he made the story with the researcher. But, he asked: "*Where am I? I cannot see myself in the photo.*" Similarly, another mother said that "*my daughter was very happy to tell me that she was in the photos taken during an event [an Involve Me workshop] and what she did.*"

Encouraging observational learning

Observational learning occurred both in the workshops and on the Facebook page, where study participants observed and learned from each other's experiences and practiced use of Our Story™ to create their own stories. During the workshops, both adults and children learned how to take pictures, record voices and write texts through Our Story™, and they started to make stories themselves. It was also observed that some older or active children encouraged younger or shy children to participate in the story-making activities together. Furthermore, when parents saw other children participate in an activity, they tended to encourage their children to join the group. Interaction between different families was also seen from posts and comments on the project's Facebook page:

Anna posted her sons' story entitled *Happy Chinese New Year* and noted "Thank Dr. Sung's instruction, which helps Ron, Andy and myself further understand how to effectively use ICT tools and interact with each other at home in such a diverse learning environment. Learning can be really fun and diverse."

Vicky: "You [Anna] made a lot of efforts in keeping children company and guiding them to participate in events, which also encouraged my daughters to interact with you all with fun. Thanks."

Anna: "Vicky, you're welcome. I'm happy to interact with young children."

Observational learning also occurred online. After one mother posted her daughter's stories on the project's Facebook page, more and more posts and comments were made by others. Not only did Facebook become a platform for sharing experiences and exchanging ideas, but it also provided a channel for promoting the *Involve Me* project to study participants' families and friends. As one mother of twin girls explained:

When I shared [my daughters'] stories with friends, they asked what tools we used to make stories and how we used the tool. It is good to promote such a tool to let more people with young children know that they can interact with their children through such a tool [Our Story™].

Clearly, by developing an online community of practice (Lave, & Wenger, 1991) for showcasing good examples of family learning, others can learn through observing, remembering, and imitating.

Lessons learned

The insights provided into this early childhood ICT project and its implications for community engagement in public libraries, are argued to be of value to policy makers, practitioners, researchers and students of the public library sector. Corresponding to the three main findings identified in this research project, succinct recommendations for the public library sector are provided here.

First, adults and children interacted and were engaged in a co-constructive process when creating their stories through Our Story™. This is helpful for enhancing children's logic, understanding and creativity in learning processes. It is also suggested that libraries host activities wherein children are active participants (not just passive listeners), since they learn through observation and essentially participation.

Second, children developed a sense of ownership through recording, creating and sharing their own stories, which helped to enhance their confidence, pride and sustained engagement with the activity. Therefore it is suggested that libraries host activities involving content creation, where children can witness the outcomes of their efforts and contribute to the activity.

Third, observational learning occurred in the workshops and on the Facebook page, where the participants observed and learned from each other's experiences to create their own stories. Thus the project results point to libraries developing online communities of practice to showcase good examples of family learning, wherein people can learn through observing, remembering, and imitating.

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