Exploring the role of public libraries in supporting intergenerational literacies through ICT

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Abstract:

Research has shown the important benefits of early childhood education to individuals and society. This paper provides the rationale for a study aiming to explore the role of public libraries in supporting efforts to develop intergenerational learning through ICT in Taiwan. Substantial research has evidenced the benefits of integrating ICT into young children's daily learning environment when used carefully and appropriately. Indeed, family interventions and high quality educational provisions in the nursery have been shown to have a big impact on compensating for early disadvantage. However, limited research has investigated the role of public libraries in supporting efforts to develop intergenerational learning through ICT. In order to fill the gap, this is an exploratory, qualitative study of interventions (involving e.g. storytimes and shared reading with ICT) developed by the National Library of Public Information in Taiwan in collaboration with the research team. The study will gather data from online materials (through blogging), semi-structured interviews and direct observations. Additionally, social media (e.g. Wordpress, Facebook and Twitter) are used to help develop the home learning environment and support a community of practice in intergenerational learning both in the library and at home. The rationale behind the choice of the National Library is that it aims for promoting lifelong learning and reading through virtual and physical resources, thus helping bridge the digital divide. The viewpoints of young children, parents, caregivers and librarians will be captured. The data collected will be qualitatively analysed, using the thematic analysis procedure. Triangulation of the data sources will be employed to enhance the reliability and validity of research findings. This research draws upon studies and methods from library science and early childhood education. It is intended that this interdisciplinary study will provide the foundations for further research. The findings of this study are intended to provide a model for implementation in the 520 public libraries in Taiwan, to promote

intergenerational learning through ICT. The findings are intended to advance our knowledge of young children's interaction with adults as they engage with ICT in the library and at home, and should be of value to policy makers, parents, professional educators and librarians in these areas.

Introduction

As stipulated in Chapter 2 Article 11 in the Early Childhood Education and Care Act (2011) in Taiwan, services of nursery schools shall be implemented in close collaboration with the home and the community, in order to support children's learning and development. According to the Act, young children are defined as two to six years old. Taiwanese libraries are operated in line with the Library Act (2001), which was developed to provide comprehensive and efficient services in order to promote education, culture, teaching and research, and lifelong learning. As a community institution funded by the government, the public library plays a key role in supporting state educational efforts.

This paper provides the rationale for a study aiming to explore the role of public libraries in supporting efforts to develop intergenerational learning through ICT in Taiwan. It begins with a discussion on defining intergenerational learning. It then highlights the significance of intergenerational learning. It also addresses issues related to using ICT with young children, and explores the potential role of public libraries in this aspect. Furthermore, an overview of intergenerational learning practice in the national landscape in Taiwan is provided. Finally, the proposed research methods to be used for data collection and analysis are identified.

Definition of intergenerational learning

Literacy studies have been intensively discussed in a variety of fields (e.g. education and information science). When applied in early childhood education research, the term *literacy* is frequently qualified with an array of prefixes, such as *pre*, *early*, *emergent* and *new*. Different meanings for different terms emerged in tandem. For example, the term *emergent literacy* was defined by Whitehurst and Lonigan (1998, 848) as "the skills, knowledge, and attitudes that are presumed to be developmental precursors to conventional forms of reading and writing" and "the environments that support these developments". Emphasising the importance of conventional literacy, the National Reading Panel (2000, 2) focused on "phonemic awareness" and "letter knowledge". Going beyond writing and reading, a relatively new term *new literacy* emerged from the literature, which can be understood as the ability to use digital technologies to "identify questions, locate information, evaluate the information, synthesize information to answer questions, and communicate the answers to others" (Leu et al., 2004, 1572).

As noted by Dresang et al. (2011), the terms, such as *emergent literacy* and *early literacy*, are often used interchangeably in the literature. Considering that early learning involves emergent conceptual development (Siraj-Blatchford and Parmer, 2011) and in order to simplify the language used in this paper, the term *emergent literacy* is adopted.

A review of the early childhood education literature identifies the importance of communication, collaboration and creativity for enhancing emergent literacy. Siraj-Blatchford (2007), based on the research findings from the Researching Effective Pedagogy in the Early Years (REPEY) study in the UK, regards the three Cs as a continuum of children's development of their lifelong learning capabilities. Creativity is closely linked with imagination, which is an essential element for children's learning not only for art but all other aspects of learning including science and technology (Vygotsky, 1933). Communication and collaboration characterise the interactions and experiences of children when they engage with others.

Critical to the development of young children's communication, collaboration and creativity is their involvement in sustained shared thinking, which was defined by Siraj-Blatchford (2007, 18) as "an effective pedagogic interaction, where two or more individuals 'work together' in an intellectual way to solve a problem, clarify a concept, evaluate activities, or extend a narrative". Shared activities or interactions could occur between children with peers, parents, caregivers or other adults.

Play is central to the concept of sustained shared thinking in early childhood, and it is recognised as the leading context of children's early learning and development. It is essentially through play that children develop intellectually, creatively, physically, socially and emotionally. In the words of Vygotsky (1933, 1), "The child moves forward essentially through play activity. Only in this sense can play be termed a leading activity that determines the child's development." It is through play that children learn to work collaboratively, think critically, solve problems, and apply their capacities and creativity.

This paper specifically focuses on interactions between different generations. While the term *intergenerational literacies* is used in the title of the paper and in the title of the joint programme at the IFLA 2013 Conference, the focus for this paper is on intergenerational learning. The term *intergenerational learning* is used throughout the paper due to its wide adoption in the literature. For the purpose of this paper, *intergenerational learning* is broadly defined, borrowed from the National Council on Aging in the US (1981), as "planned ongoing activities that purposefully bring together different generations to share experiences that are mutually beneficial." In line with this definition, this paper investigates interactions that promote learning and social relationships between young children and their parents and siblings. Young children aged two to six will interact with older children and adults as learning partners, where intergenerational learning tends to be reciprocal.

Significance of intergenerational learning

As observed by Snow (2004), some argue that literacy tasks engaged in at school constitute the prototype for literacy, whereas others argue that most literacy activities occur at home, in the context of religious observance, daily life tasks, and community involvement. Indeed, a great deal of research evidence has emphasised the fundamental importance of supporting early learning in preschools (e.g. Siraj-Blatchford and Siraj-Blatchford, 2006), at home (e.g. Sylva et al., 2010) and in the community (e.g. Ball, 1994). The three contexts are used as a structure for discussion in this section.

Research has shown that family interventions and high quality educational provisions in the nursery or playgroup can go a long way towards compensating for early disadvantage (Schweinhart et al., 2005; Siraj-Blatchford and Siraj-Blatchford, 2006; Sylva et al., 2010). Indeed, James Heckman (2006), a Nobel prize-winner in economics, has shown that investments in early childhood programmes are justified by the returns provided to society as a whole. In other words, investment in the foundation stage of early childhood has been shown to provide a higher rate of economic return than investments later in life.

Increasing research has also highlighted the importance of enhancing home learning environment for promoting family learning. As Feinstein et al. (2004) explained, there are important benefits of early childhood education to individuals and society in what education enables parents to pass on to their children. While reducing the pressures placed on families may reduce the risks that they pass on to their children, there are also family behaviours that may be encouraged to promote resilient development, or that be seen as more protective, in directly countering the risks to children (Edwards, 2007). Research has identified two such areas of resilience in particular:

> parental interest and involvement in education, having expectations and promoting self efficacy – a belief that one's desires are achievable (Harvard Family Research Project, 2006; Siraj-Blatchford et al., 2007);

> providing additional educational support through an enhanced home learning environment, supplementary schooling and early forms of what Lareau refers to as 'concerted cultivation' of children by their parents (Siraj-Blatchford et al., 2007; Sylva et al., 2008).

Compared with literature emphasising the school and home context, there are relatively fewer studies looking at the community context. However, this does not mean its importance can be neglected. Chisita (2011), drawing upon library and school examples in Zimbabwe, indicated that intergenerational dialogue through reading helps promote social inclusion and social cohesion. Echoing this notion, Stooke and McKenzie (2011, 24) also suggested that "[a]n important goal for early literacy reforms in libraries is to promote social inclusion by helping to prepare all children for school." Taking into consideration public libraries' general mission to meet everyone's informational, cultural, educational and recreational needs, it is considered worthwhile to explore how the public library, an informal learning environment, can support efforts to develop intergenerational learning between young children aged two to six and adults.

Using ICT with young children

With the growing prevalence of ICT in preschools and at home, concerns have been expressed as to whether it is beneficial for children to use ICT. Despite some claims of negative impact of inappropriate ICT use by children (e.g. focus and attention problems, child obesity), it is evident that ICT can positively support early learning when used effectively, appropriately, intentionally and responsibly. In this respect, NAEYC & Fred Rogers Center (2012, 3), drawing upon evidence from a wide range of robust scholarly literature, concluded that "it is the educational content that matters - not the format in which it is presented." Also, the emphasis is to master emergent literacy, not the ICT tools.

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Substantial evidence has enhanced the role of ICT in supporting young children's communication, collaboration, creativity, sustained shared thinking and play, which are seen as building blocks for their lifelong learning. In the US, the value to parents and children reading books together at home has been well established and research associated with Head Start has provided direct evidence of the effectiveness of applying ICT at home (McCarrick et al., 2007). As also seen in the projects in the UK, e.g. Effective Pre-school and Primary Education Project (EPPE) (Sylva et al., 2010), and Supporting Playful Learning with Information and Communications Technology in the Early Years (Siraj-Blatchford et al., 2013), ICT is already being used to enrich early childhood practices at home and in preschools, such as shared reading at the computer screen. It is worth noting that an increasing emphasis has been placed on how young children spend time with ICT. For example, it has been found that the youngest children benefit little from using ICT alone; however, an adult can, for example, usefully create images on a digital screen, and engage them in a conversation, verbal exchange by manipulating the images on the screen (Morgan and Siraj-Blatchford, 2009). This notion distinguishes the substantial difference between using ICT alone and with social interaction.

It is undeniable that ICT is here to stay. The use of ICT is not supposed to distort or replace current activities, such as outdoor experiences, pretend play, real-life exploration or physical activities. Instead, ICT should be integrated into children's daily learning environment, should it be in preschools, at home and in the community. Hence, the priority now is to make the most of its potential in order to enhance children's learning outcomes. In this respect, research into intergenerational learning and shared reading through ICT could provide a way forward, which promotes collaborative and interactive learning between young children and adults.

The potential role of public libraries in supporting intergenerational learning through ICT

With greater emphasis on digitisation of library services for young children today, the issue how public libraries support efforts to develop intergenerational learning through ICT becomes critical. In parallel with the development of community engagement in the context of public libraries (Hill, 2009; Sung, 2012), library services for engaging with young children and their caregivers also exist inside, outside and online.

Public libraries have a long history of providing in-library services for young children. However, not all children's services provided equal emergent literacy programmes.   Changes in the focus of storytimes provide an example. According to Albright et al. (2009), storytimes were regarded as a fun diversion in the 1950s in the US; with the influence from the Neward (N.J.) Public Library, the development of preliteracy skills began to be incorporated into storytimes, using techniques such as dramatizing stories, repetition, and clapping to songs and rhythms in 1954. Furthermore, there are differing ideas with regard to the role of parents during storytimes in the library - some parents are allowed to remain in the room with their children, while others are encouraged to "take an hour for themselves" (Albright et al., 2009). The former supports intergenerational learning, which focuses intervention efforts on the family, rather than on the child or caregiver separately (Whitehurst and Lonigan, 1998). A popular trend towards promoting emergent literacy through intergenerational learning can therefore be observed.

In addition to promoting print literacy, public libraries today provide a means for children, parents and caregivers to access ICT for enhancing playful learning in the early years. In this respect, the public library, in accordance with its universal mission - "open for all", is encouraged to take leadership in providing democratic access to ICT, in order to help bridge the digital divide. In addition to passively providing access to ICT, librarians can proactively play an effective part in facilitating young children's learning at the screen, where there is enough staff support. Also, public libraries can optimise the use of ICT to provide interactive activities that encourage family participation and discussion in order to improve children's literacy competencies.

Going beyond offering in-library services, libraries may be encouraged to focus more on emphasising the importance of the parents' role in the development of fostering emergent literacy skills in their children. By so doing, as explained by Albright et al. (2009), not only can the child receive emergent literacy education, for e.g. an hour a week in the library, but also on a consistent basis at home. Furthermore, in order to promote a culture of inclusiveness (catering for the needs of those who have never thought of libraries as a learning place) and building on an established role of the public library in managing information resources and enhancing communication in the community, libraries may be encouraged to support a community of practice (Lave and Wenger, 1991), through online channels (Hill, 2009), with young children, parents, caregivers and librarians in supporting each other with ideas and examples of good learning activities that are focused on promoting intergenerational learning both in the library and at home.

Intergenerational learning practice in the national landscape (Taiwan)

Internationally, two major emergent literacy programmes, involving both young children and parents, attract plenty of interests in the literature. One is Bookstart in the UK, initiated by the Booktrust Foundation; the other is Every Child Ready to Read @ your library in the US, initiated by Association for Library Service to Children (ALSC) and Public Library Association (PLA) in consultation with National Institute of Child Health and Human Development (NICHD). Learning from the UK practice, the Bookstart programme has been officially implemented in Taiwan since 2005, which encourages book shared reading between young children from birth to three and their parents.

Furthermore, Project for Improving Reading Environment and Facilities of Public Libraries was launched by the Taiwanese Government, aiming at renovating village and town libraries from 2009 to 2012, not specifically targeted at promoting early learning. Despite the argument that providing space itself is a passive form of community engagement (Goulding, 2009; Sung, 2012), an evaluation study of the library services before and after the Project has shown a growth in terms of service usage, such as the number of library visits, the number of library collections and issues, and the number of computer uses (Ke et al., 2012).

Building upon the success of the Project across Taiwan, the researchers intend to draw upon studies and methods from library science and early childhood education to explore the role of public libraries in supporting efforts to develop intergenerational learning through ICT in Taiwan. It is intended that this interdisciplinary study will provide the foundations for further research. The findings of this study will, hopefully,

provide a model for implementation in the 520 public libraries in Taiwan, in terms of promoting intergenerational learning through ICT. The findings are intended to advance our knowledge of young children's interaction with adults as they engage with ICT in the library and at home, and should be of value to policy makers, parents, professional educators and librarians in these areas.

Research aim

Substantial research has evidenced the benefits of integrating ICT into young children's daily learning environment when used carefully and appropriately. Research has also shown the important benefits of early childhood education to individuals and society in what education enables parents to pass on to their children. However, limited research has investigated the role of public libraries in supporting efforts to develop intergenerational learning through ICT. This paper, thus, aims to explore the role of public libraries in supporting efforts to develop intergenerational learning through ICT in Taiwan.

Proposed research methods

The exploratory nature of this study leads to a qualitative approach to investigate study participants' perceptions, attitudes and behaviours towards using ICT for supporting intergenerational learning. Research philosophy behind the study is symbolic interaction, which "addresses the nature of society and the human being, the relationship between the two, and the nature of human action and interaction" (Stryker and Statham, 1985, 314). The rationale of adopting this philosophical perspective is that symbolic interactionists emphasise the importance of identifying the meanings of the interactions between individuals in relation to the environment (Sung, 2012).

This study selects the National Library of Public Information in Taiwan as the context for investigation as it aims for promoting lifelong learning and reading through virtual and physical resources, thus helping bridge the digital divide. Specifically, the selected National Library is regarded as an institution that supports intergenerational learning through ICT. In addition to passively providing digital learning resources, the National Library promotes educational events at the library (e.g. storytimes and shared sharing with ICT) and equips parents with literacy skills to interact with their children at home.

During the pilot stage in July 2013, information regarding appropriate ICT tools and practices will be distributed to potential study participants. In 2012 an international review of appropriate computer and mobile early childhood ICT resources was carried out for the International Business Machines (IBM), the KidSmart project, by Siraj-Blatchford and Smith. This research will upon this review and another published ICT application review by Yellan and Gilbert (2012).

Three qualitative methods are to be employed for data collection in this study, including online blogging, semi-structured interviews and direct observations. Table 1 shows the proposed timeline of key activities in this study.

Table 1 A timeline of key activities in the study

Timeline	Activity
Jul 2013	**Pilot stage:** Volunteering the National Library's storytimes with ICT facilitation to identify, and further build up relationship with, potential study participants Organising a half-day introductory workshop on the overall project rationale and implementation
Aug 2013 – Feb 2014	**Data collection stage:** (Study participants) online blogging to create a community of practice Interviews with study participants to explore participants' perceptions and attitudes towards supporting intergenerational learning through ICT Observations of relevant events to explore study participants' experience of using ICT at the National Library
Mar 2014 – May 2014	**Data analysis stage:** Thematically analysing the data collected, using mind mapping techniques Writing up results
May 2014 – Aug 2014	**Dissemination stage:** Colleague-based review Feedback to study participants Dissemination at international conferences (e.g. IFLA)

An established role of the public library is to manage information resources and enhance communication in the community. The researchers will employ social media tools (e.g. Wordpress, Facebook and Twitter) to support a community of practice (Lave and Wenger, 1991) with young children, parents, caregivers and librarians in supporting each other with ideas and examples of good learning activities that are focused on promoting intergenerational learning both in the library and at home. Study participants will be encouraged to contribute posts via mobile phones.

In addition to gathering online materials, the researchers will conduct face-to-face semi-structured interviews with library staff, young children and their parents. It is hoped that the interview data will enable the researchers to obtain an in-depth insight into study participants' perceptions and attitudes towards supporting intergenerational learning through ICT and good practices of how the National Library can support them. The research will therefore be formative in nature, and directly influence the ongoing project development. Also, direct observations, where the researchers conduct observations as observers, will take place during storytimes and shared reading events in the National Library, in order to corroborate evidence gathered from the other two sources.

The data collected will be qualitatively analysed, using the thematic analysis procedure informed by Braun and Clarke (2006). Data will be managed using NVivo 10, a qualitative data analysis software programme. Triangulation of the data sources

will be employed to enhance the reliability and validity of the research findings.

Conclusions

This paper has discussed the definition of intergenerational learning, which is closely linked to emergent literacy, focused on intervention efforts between young children and older adults, and featured by communication, collaboration, creativity, sustained shared thinking and play. It has also provided a justification of the importance of public libraries in supporting intergenerational learning in the library, at home and online. Furthermore, this paper, drawing upon evidence-based research, has shown the various benefits of integrating ICT into young children's daily learning environment when used carefully and appropriately.

This study aims to explore the role of public libraries in supporting efforts to develop intergenerational learning through ICT in Taiwan. Due to the exploratory nature of this study, a qualitative approach is employed to investigate interventions developed by the National Library of Public Information in Taiwan in collaboration with the research team. Data will be gathered from online materials (through blogging), semi-structured interviews and direct observations. Additionally, social media (e.g. Wordpress, Facebook and Twitter) are used to help develop the home learning environment and support a community of practice in intergenerational learning both in the library and at home. The findings of this study will be reported in August 2014.

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