Bridging Volunteer Services and Mobile Teaching in the Tablet Reading Community

Abstract: Equal access has serious implications for the growing chasm in learning in remote areas and in economically disadvantaged communities. To help bridge the digital divide for children in remote areas, engaging communities to provide the needed resources in remote schools is essential. With an aim to promoting teachers’ adaptation of tablet reading and teaching among remote schools, a platform for sharing experiences and exchanging ideas among teachers was developed. College students also volunteered for follow-up mobile reading promotion in order to provide needed human resources for tablet reading integration among disadvantaged communities. Collaborative efforts by the university and teachers in remote schools provided a case for study. The main issues explored in this study were: (1) how teachers in remote areas adapted tablet reading in the classroom, and (2) what university students experienced from promoting tablet reading. This paper presents a qualitative analysis of integrating volunteer services and civic engagement in promoting tablet reading, and highlights the mutual benefits, challenges, and recommendations for future implementation. Various data resources were integrated into the inductive analysis, and different resources were used for triangulating the reported phenomena. The study concludes that the teachers obtained experience of tablet reading, and the college students experienced innovative volunteer-service opportunities. The collaboration among the society, the university, and learning sites were all essential for promoting tablet reading among children in remote areas.

Introduction

Electronic reading entails a combination of various skills and strategies needed to search, select, analyze, evaluate, and communicate with diverse media (Chang et al. 2011; Castek and Beach 2013; ChanLin 2013). To foster knowledge acquisition in various subjects, the importance of reading undertaken in childhood cannot be underestimated (Maynard 2010). The facilitation of literacy instruction is also attracting attention in current schools and the information society as a whole (Hutchison, Beschorner, and Schmidt-Crawford 2012; Herold 2014). Going beyond print-based reading, helping children to develop strategies and become familiarized with tablet devices is essential. More instructional scaffolding of reading is needed for connecting the relationship between interactive features in eBooks and students’ reading skills (Alexander 2011; Dunn 2013; Hutchison, Beschorner, and Schmidt-Crawford 2012).

Tablet reading offers an innovative way of reading. Online reading materials are convenient for children to experience the richness of contemporary and historical literary characters, themes, and genres (Houston 2011). Providing opportunities and possibilities to reach individuals of diverse socio-economic status, especially children from low socio-economic groups or remote areas, should be emphasized in bridging the digital divide (ChanLin, Lin, and Lu 2012). Inequalities in accessing learning resources among these children need to be addressed (Gudmundsdottir 2010). More support from society and their communities is needed to help them develop the necessary learning abilities and skills for coping with learning obstacles (Crosnoe and Cooper 2010; Hughes, Boyd, and Dykstra 2010). Children who receive encouragement to read from their living environment are more likely to enjoy reading, to read frequently, to have positive attitudes towards reading, and to believe that reading is important to success in their life (Clark and Hawkins 2010). Further concern needs to be paid, especially in the underserved...
Efforts to Bridge the Divide

To adopt new information and communication technologies, underserved communities need both technical and human supports to bridge the digital divide (Govindaraju and Mabel 2010). Promoting tablet reading at remote learning sites requires considerations of pedagogical justifications as suggested by the literature (Rogers 1995; Nedungadi and Raman 2012), including relative advantage, compatibility, complexity, trial ability, and observability. Tablet reading for children requires support from society to facilitate electronic reading processes in order to enrich their reading experiences. These processes involve reflection and creative thinking derived from touching, tapping, and tracking of reading content (Walsh and Simpson 2013). Teachers in remote areas manage the environment to help children develop self-regulated reading skills from self-exploratory and peer-sharing reading activities. Engagement from the community for creating children-friendly reading environments is also essential for guiding children to a wide variety of electronic reading resources. Training college students to become volunteer reading promoters to help children read in the electronic age might contribute to bridging the digital divide (ChanLin, Chou, and Hung 2014).

The literature has addressed the importance of inviting college students to serve community needs for information manpower. For example, Al-Khasawneh and Hammad (2013) describe how students are capable of providing needed information services in the community. In their serving experience, they apply information skills to solve specific community problems. To bridge the divide in a specific community, students are also encouraged to brainstorm and suggest innovative ideas and technical services to cope with problems based on tips and hints provided by others. In these activities, students learn to actively analyze and evaluate problems in information domains, collaborate with others, and then design and implement real-world solutions (Al-Khasawneh and Hammad 2013).

Volunteer Reading Promoters

College students engaged in tablet reading advocacy benefit from the application strategies in the use of reading devices and of reading content (ChanLin 2013; Larson 2010). The manipulative touch screen in tablet reading invites the use of several modalities (visual and tactile/kinesthetic) and inventive strategies for guiding children’s attention and helping young readers become much more meta-cognitive in their reading (Kulaga 2011; McClanahan et al. 2012). Children need adults to use instructional scaffolding to help them develop the skills necessary for developing the literacy needed to reflect on the reading content, and to build connections and to think in more dynamic ways (Huang et al. 2012). Linking college students with disadvantaged children through community opportunities can be a means of creating an equal e-reading culture in society. Reciprocal benefits in exchange for understanding and sharing for both the college students and the serviced children can be obtained (Eppler et al. 2011; Tracey et al. 2014). The value of students’ involvement in serving communities includes cultivating students’ civic behaviour and fostering their intention to help serve the community (Ngai 2009; Kliwer et al. 2010; Marichal 2010; Molee et al. 2010; Nandan and Scott 2011; Stenhouse and Jarrett 2012).

To create a tablet-reading community between the service site and learning sites, the teaching practice and college service practices of teachers were studied. The university played an active role in initiating tablet reading advocacy, and support for reading resources and human service resources was also provided. This study focuses on the integration of tablet devices in reading. Two main research questions were explored: (1) how teachers in remote areas adapted new and emerging concepts of tablet reading in the classroom, and (2) how university students learned from promoting reading.

Methodology

In this study, a case of university support for tablet reading and collaboration with teachers in remote areas in Taiwan was analyzed. A university (in northern Taiwan) took the initiative in engaging a reading community by involving the society, the college students, and the teachers in remote sites to promote children’s tablet reading and learning. In order to help children in remote schools gain reading experience with tablet technology under the constraints of limited funding support, many schools searched for donations from different foundations to facilitate tablet integration into learning and reading. Since 2012, a charitable foundation (affiliated to a computer original design manufacturer) has donated tablet
PCs to schools in remote areas. More than 50 rural schools have benefitted from the donated tablets since then. In collaboration with the foundation, the university provided leadership in bridging the digital divide. Shared responsibility for engaging the community included providing guidance for setting up the virtual and physical interactions for sharing experiences among members, organizing structure links to diverse reading resources for teachers’ use in the classrooms, and the recruitment and training of volunteer college students for tablet reading services. Through this initiative, these schools were provided with the opportunity to experience tablet reading and learning.

A framework to organize and structure both human resources and technical support for training was established, as shown in Figure 1. A platform, Mobile Reading in Action (http://tablet.project.lins.fju.edu.tw/) was developed for exchanging experiences among learning sites. Sharing of innovative applications of tablets in reading was recorded in the Activity Forum (Figure 2). Students in the university and teachers at remote schools shared the virtual space for discussion and the sharing of ideas and thoughts. Tutorials, technical support for the tablet PCs, and links to various children’s reading resources were organized. This platform served as a means of recording students’ activities with the tablet PCs among the community members.

Teachers’ experiences with the use of tablet PCs in reading activities were collected by 10 interviews among teachers in rural schools. The interviews employed

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Figure 1: Training for promoting children’s reading.

Figure 2: Mobile Reading in Action sharing tablet reading promotion (http://tablet.project.lins.fju.edu.tw/).
a semi-structured format using the interview guide shown in Table 1. From the university, the college students’ reactions to tablet reading advocacy were gathered through opened-ended reflections (at the end of the service term). In addition to the interview data, activity records reported by teachers through the interactive platform, Mobile Reading in Action, were also used for data analysis. Documents from learning sites included project reports, movie clips, and children’s learning documents provided by the teachers.

**Table 1: Interview guide for teachers from learning sites.**

| 1. Background information about the rural school and the teacher |
| 2. Motivation for applying to take part in the tablet reading project |
| 3. Planning for tablet reading activities |
| 4. Experiences from the implementation |
| 5. Description of children’s reading habits |
| 6. Reactions to children’s experiences of using electronic reading resources |
| 7. Reactions to children’s experience of tablet reading |
| 8. Description of future implementation of tablet reading |

Volunteer students were recruited from the university. To achieve the intended purpose from students' service experience, the skills needed for services were identified. These skills included the use of tablets, access to reading resources from the Internet, and strategies for guiding children’s digital reading. Regular training was provided to volunteers on a weekly basis (total: 18 h). The course content covered: (1) volunteer services; (2) design for specific reading topics; (3) digital tools for concept mapping in reading (e.g., Xmind); (4) tools for producing reading instruction; (5) design for reading; content and extended activities or discussions; (6) use of application software (for the worksheet and poster); (7) story guiding skills; (8) sharing by senior volunteers; (9) use of tablets; and (10) invited talks from experts (instructors for story telling). Questionnaires were responded to in each training period for formative evaluation purposes.

On-site team services were arranged once every 1–2 months. Prior to each on-site service, the allocation of the human resources among the team members was planned by the volunteer students. Volunteer reading facilitators were assembled to rehearse and practice their service activities. The service skills included: (1) techniques for handling tablets; (2) selection of reading resources for children; (3) design of reading tasks for children (design of questions for encouraging exploration of reading contents); and (4) extended activities for reading with tablets. Data collected from university students included their training and activity reports and reflections from volunteers.

**Data Analysis**

Qualitative research was used for collecting data in order to obtain in-depth information from the informants concerning shared experiences (Creswell 1998). A constant comparative method was used to analyze data when summarizing the research findings. The research method draws on the work of Glaser and Strauss (1967) and Lincoln and Guba (1985). Various coding procedures were involved, including open coding, axial coding, and selective coding for inductive analysis. Various data resources were integrated into the inductive analysis as listed in Table 2. Although multiple data sources were used for the study, only a portion of the data is cited for the explanation of specific phenomena. To preserve anonymity, documents used for analysis are labelled with a special code as described in Table 3.

**Table 2: Data resources in the study.**

<table>
<thead>
<tr>
<th>Data resources</th>
<th>Items</th>
</tr>
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<tbody>
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<td>Application projects (by teachers)</td>
<td>16</td>
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<tr>
<td>Interview data from seeded teachers in remote schools</td>
<td>10</td>
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<tr>
<td>Tablet reading activities gathered from the interactive platform, Mobile Reading in Action</td>
<td>114</td>
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<tr>
<td>Movie clips about children’s learning</td>
<td>49</td>
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<tr>
<td>Children’s learning documents (Concept map examples)</td>
<td>11</td>
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<tr>
<td>Project reports (by teachers)</td>
<td>7</td>
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<tr>
<td>Volunteer training (activity) document</td>
<td>26</td>
</tr>
<tr>
<td>Reflections from volunteers</td>
<td>61</td>
</tr>
</tbody>
</table>

**Findings**

**Teaching Practice**

From the data collected in the study, the number of students of each of these remote schools varied substantially, from 65 to 450. The majority of these schools are located outside cities and are geographically remote from urban areas. Many children were from Taiwanese Aboriginal tribes and were considered as disadvantaged minority children. Because of their social economic disadvantages, many adults have jobs in cities far from their hometown, and the children are raised by their grandparents or by a single parent. According to the teacher interviews, the children’s reading materials were mainly from print-based books prior to the implementation of the tablet reading project. Many teachers managed their own class’ collections for sharing reading materials among children.
Most children did not have experience with tablet reading, and only a few students had access to a family cell-phone. In order to offer the children opportunities for learning and experiencing a new reading approach, the teachers applied to take part in the tablet donation project. When tablet reading was implemented in the reading class, the children were filled with excitement.

The platform, “Mobile Reading in Action” provided a space for sharing children’s reading resources and teachers’ experiences of teaching tablet reading. The teachers were positive about the use of tablets in various reading and learning activities (ACT-005O, ACT-078B, ACT-066N, VC-043, VC-044):

Screening and selecting appropriate materials for reading is time-consuming. With the reading contents provided from the website, I was able to focus on the use of strategies by children in their tablet reading. Resources provided on the website are a good starting point. (TH4-49-53).

Children’s use of the tablet PCs was not limited to reading classes. They shared the use of various downloaded apps (such as a dictionary for checking vocabulary, reading comprehension tests, and games). They also enjoyed exploring various functions provided by the device (RPT-08L). According to the teachers, the children’s uses of the tablets for reading included: pre-reading (for new vocabulary) (ACT-111G, ACT-113G); in-class group reading activities (ACT-042G); reading tasks assigned by teachers; self-exploratory reading from the resource links provided; group-exploratory reading for diverse topics, including life and science (e.g. ACT-060G, 70G), environmental issues; stories about their own cultures (VC-02, VC-08, ACT-058O); use of reading comprehension tests (ACT-022H), recording of reading reflections from children (VC-19); and documenting their own stories from an integration of reading resources (Figure 3).

The major strategies used by the teachers are summarized as follows.

**Mapping the Story Content with Concepts**

In teaching elementary school children (3rd to 6th graders) to read and comprehend a story, strategies were taught by many teachers to help the children consciously process the materials they read. From a teacher’s experience, helping children to be able to understand the elements and linking structures in a story is an important aspect of learning to read:

In processing the reading of a story, characters, events, time, and things are essential elements that children need to identify and organize from the story contents. I taught them to extract keywords, and identify the relationship among those keywords, through mapping the structure. They were guided to comprehend the meanings from reading. ... In the beginning of the reading practice, the children were slow at processing their reading materials efficiently. Providing opportunities for practicing the strategies taught will help them internalize these processes for future reading. (TH6-165-173).
Many teachers integrated concept mapping software to help the children capture the story’s structure. Figures 4 and 5 are examples from different teachers’ class assignments. Through the use of concept mapping tools, the children were able to structure their interpretation of a story. They were also provided with opportunities to share their own interpretations and reflections with others. Teaching children to read emphasizes the development of necessary strategies in processing their reading contents (Figures 4 and 5). The use of concept mapping tools integrated into tablet reading in the classroom guided the children’s use of meta-cognitive strategies in self-reflection of what was read.

To guide children’s use of reading strategies, I used Mindjet to go with the reading content. The children learned to cognitively process their reading in diverse ways. Everyone was invited to share with others their interpretation of a story together with the concept map they drew (TH2-25-29). “Pre-reading activities were assigned to the children in order to acquaint them with new vocabulary. The children were familiar with the use of the dictionary app for searching for the meanings of new vocabulary. (TH1-38-41).

To adapt to individual needs, the tablets could be taken home by those children with low reading capability. More opportunities and access to reading were encouraged. “In order to help children with reading difficulty, tablets were allowed to be taken home for pre-reading so the students...
could check unfamiliar words and phrases in advance through the dictionary app. The children’s basic reading ability was thus enhanced” (TH1-24-26). To encourage the children to reflect and respond, social networks were used for interaction and sharing of reflections (RPT-05Q).

**Exploratory Reading for Various Subjects**

Various means of pedagogical integration of tablet technology were employed by the teachers, such as searching and self-exploration of various readings (e.g., in ACT-071N, ACT-093A, ACT-100G, VC-006, VC-011). To initiate a topic for exploration, a teacher used a story from an e-picture book as the starting point, and then extended further learning to life science and environmental issues:

I used the story – Bear on the Floating Ice – as a starting point for the pre-reading activity. Extended readings regarding the phenomenon of melting ice and the consequences of global warming issues were then assigned for exploration of knowledge in environmental and life science subjects. (TH5-40-42).

The integration of tablet reading allowed the children to be able to actively respond and to take actions in their own learning in the classroom:

Note-taking with tablets was an approach I encouraged the children to learn so as to manage and organize their readings. (TH8-104-107).

Exploratory activities for culture-related stories were used in the tablet reading (ACT-018J, ACT-030G, ACT-058O). During the reading process, the students learned to use tablets to record and share their reading reflections and question eliciting on Facebook (VC-019; VC-22, RPT-06G). Group-exploratory activities also included writing stories about themselves and stories about living creatures. Story-writing about synthesis and presentation were taught. In the story-writing approach, the indigenous children were encouraged to construct stories to introduce the language, rituals, songs, dances, and art of their own tribe. Through this process, the children actively exploited and integrated relevant readings.

Our children wrote stories about our own tribe. They learned to search for relevant materials online, document their observations, and write their own stories. (TH8-67-68).

The children searched for relevant online resources of butterflies at Butterfly Valley (close to the school) from the Internet, and used their tablets to document butterflies’ life cycles with photos and videos and using various functions for measuring, observing, and recording with the tablet device. The children produced their own movies and shared these movies on YouTube. From their experiences, the children experienced writing and documenting their own stories with the help of technology. (TH-66-70).

**Barriers to Implementation**

Integrating tablet reading into classrooms involved much planning effort to try out new teaching approaches in the classroom. Many teachers experienced a heavy workload because of planning the use of tablet PCs in the reading and class activities. Most teachers had to cope with technological problems, including hardware limitations, bandwidth problems, limited access to WiFi on campus, and limited availability of tablets for reading at home by the children. The feasibility of having children use tablet reading for ubiquitous reading thus became challenging.

We experienced a low speed wireless connection when doing tablet reading. (TH9-156-157).

Most children did not have Internet access at home, so they had to download reading materials for reading at home. (TH9-86-87).

Integrating this technology into the classroom required an investment of time and effort for planning. Support of manpower from the volunteers was needed.

The volunteers in the Mobile Reading Camp did a wonderful job on many things. Our children enjoyed their experiences very much. (ACT-092A).

**Suggestions for Future Integration**

In this study, the involvement of volunteer reading facilitators for reading services was a valuable aspect of tablet reading advocacy. Teachers from remote schools appreciated the experiences of collaboration with the university. They also appreciated the opportunity for them to adapt a new approach to reading. However, more sharing of children’s work in using tablets to trigger more teachers’ involvement in planning was suggested for tablet reading.

Mobile learning and reading is a trend for future learning. Since the new approach to learning has extended the personal information space, our adaptation in reading instruction is needed. (TH7-155-157).

The use of tablets should not be limited to searching or flipping pages of stories, and children’s creativity from the use of tablet reading should be emphasized. Innovative approaches for the use of tablets in reading from different sites could be shared in the workshop. (TH8-59-62).

Long-term efforts in future advocacy and volunteer support are needed to help children enjoy an interest in
tablet reading. Various children’s reading resources accessible to teachers, children, and parents were also suggested.

The games and activities planned by the college students were interesting and inspired the children’s intention to read. With the use of tablet reading by the children, the reading outcomes were documented (recordings of reading reflections from children). (ACT-003A).

The reading resources, such as Picture Book Garden, are not only of interest to the teachers and students, but also interested the students’ parents. (ACT-067B).

Service Practice

Data collected from the students’ training and activity reports revealed their positive reactions to their involvement in the tablet reading services. The college students gained necessary skills from serving. The service work required the devotion of time and effort by the college students in establishing companion relationships to carry out interactive tablet reading activities. Through involvement in planning and servicing, the college students learned to collaborate with their team members and developed a sense of team responsibility. More involvement in learning and more positive learning among the children encouraged the college students to develop a sense of satisfaction from the service tasks.

Skills and Attitudes Learned from Serving

The skills gained from serving children are diverse, including coordination with teachers about the needs of the schools, writing lesson plans, re-designing reading materials, and the use of various tools. On-going training throughout a whole semester held on a weekly basis also helped the college students develop a sense of responsibility and attachment to the team. Senior volunteers also shared their experiences with the newly recruited members.

I learned the skills for communication with children. (V-12).
I learned to use the concept mapping tool (Xmind) for storytelling. This tool also helped structure a story for the children by linking characters, objects, and sequence of events to form a story. (V-23).
I learned to use more gestures together with the electronic reading to help these children enjoy reading. (V-25).

Collaborative Team Effort

To make reading more interesting to the children, the design of themes and extended reading activities to encourage children to read was planned by volunteer reading promoters. This process entailed much effort for selecting electronic reading materials, making tags for easy access of reading contents, planning exercises for “touching, tapping, tracking, and reading with tablets,” arranging for follow-up reflections, and managing the allocation of manpower. Through planning and collaborative effort among volunteers, the students practiced the skills in training as a reading promoter, and shared duties to accomplish their service goal.

Collaborative effort among us (volunteers) was essential to successfully implement tablet reading advocacy. (V-39).
Frequent discussion was needed to perform the job successfully. (V-45).
I learned how to write instructional plans for different children’s groups, and worked with other volunteers as a team for guiding the children to read. (V-04).
I shared with others what I learned and how I have learned to help children’s reading. (V-01).
We needed to be aware of each detail in setting up the environment and to share the responsibilities for different activities. (V-31).

According to their on-site service experiences, the volunteers also shared their understanding of specific children who required special attention.

John (not his real name) had potential reading and emotional problems, and we had to be aware that unexpected situations might come up during the group activities. Readjustment of work allocation might be needed to cope with different situations. (V-53).

Achievement from Service Work

For these college students, joining the team to promote tablet reading was an inspiring experience. The volunteer students worked as a team and shared their experiences with others, and guided the children to read with tablet
The students also had a sense of achievement and fulfilment from their services:

The most wonderful thing in serving for reading advocacy was the feeling of being needed by the groups we served. I enjoyed seeing the children’s smiling faces. (V-14).

The children enjoyed reading with the tablet PCs. They felt they were learning from new technology. (V-23).

Learning tablet reading with the children was exciting and inspiring. (V-16).

During the process of servicing, we felt the children growing and becoming mature. (V-17).

Reflections from tablet reading advocacies helped the volunteer service team review the service process, and identify problems and improvements needed for the next service. By collaborating with the schoolteachers, the college students were able to plan the reading activities based on the children’s needs.

The duration of specific reading activities should be appropriately arranged in accordance with the children’s attention span. (V-39).

I considered the wonderful experiences learned from the reading services to be helpful for my future professional development. The knowledge and skills learned from experiences could help me cope with future career challenges. (V-08).

I was willing to take on new challenges, such as teaching children to read, and spreading the seeds for reading. Through these experiences, I found myself useful. (V-11).

Discussion

In this study, efforts between the university and the learning sites for promoting tablet reading were studied. Summarizing the findings above, the framework for implementing service practices (from the university) and teaching practices (from the learning sites) to support tablet reading among children is elaborated based on our observations (Figure 6). The university provided support to teachers by setting up a virtual reading teaching community, convenient access to diverse reading resources, and technical support for tablet applications. In order to offer more tablet reading experience to children in disadvantaged communities, the university also recruited volunteers to provide services to promote tablet reading. Volunteer services from the university offered schools needed manpower to select appropriate reading content and to plan story activities to motivate the children’s interest in the stories, and to guide the children to read.

Reading invites individuals to engage different levels of cognitive process in comprehension and synthesis from the reading content. The use of computer-assisted cognitive reading tools is one of the approaches to inviting children’s use of diverse representations, tasks of engagement, and multiple expressions in the reading process (Liu, Chen, and Chang 2010; Ko et al. 2011). From our observations, the use of a mind-mapping tool was applied in tablet reading to actively engage the children in processing the story content. To complete the assigned reading task, the children were taught to use their visual perceptions and monitor their reading with the electronic tools. These approaches offered them experiences in learning the use of electronic support tools for reading, because many children in rural communities were from disadvantaged and socioeconomically diverse families, reading with tablets might not otherwise be experienced in their families. To equip these children

Figure 6: Service and teaching practice for the tablet reading community.
with the literacy required in the digital age, support from schools is essential for building their skills of reading and their access to knowledge (ChanLin, Lin, and Lu In press; Schlicht 2013).

From our experience, the project offered members of the community a platform for mutual learning and sharing of duty in promoting mobile reading among children. Teachers in remote areas shared their experiences of planning and implementation within their own schools. Volunteer students learned the use of reading assistive tools and strategies for helping and guiding children’s reading. In the volunteer training, various teaching approaches were taught, such as the adaptation of specific reading subjects pertinent to the culture within the community, or matching reading content with children’s interest and information needs. They also learned to design lesson plans to achieve specific reading objectives. From the volunteer services for promoting tablet reading, the college students experienced cooperative learning with their team members and gained a positive attitude toward their service.

In the literature, the impact of students’ community service experiences on future social engagement is highly valued. Linking volunteer services with disadvantaged communities also helps students to develop a sense of responsibility for the society, which is very important for their future service practice (Ferrari and Chapman 2014; McCluskey-Titus et al. 2015). In our study, it was also observed that the students learned to communicate with the members in the community they served, to identify real-life problems in serving, and to solve the problems with strategies taught by others. From these volunteer services, the students experienced skills training, communication, planning, and collaboration/duty allocation. Learning through experience in practical settings provides opportunities to encourage students’ engagement in authentic activities, meet the communities’ needs, and enrich their lifelong social engagement (Bates 2011; Baker and Murray 2011). Well-organized, well-constructed and well-reinforced service-learning opportunities foster active engagement among participants within the community (Mottner 2010). Prior research has indicated positive outcomes from volunteer support for reading mentors including personal development, personal insight, and satisfaction (Tracey et al. 2014). This study also found similar results to those of volunteer reading promoters.

The teachers in the remote schools appreciated the support, resources and networking opportunities for exchanging teaching practice in tablet reading. When teaching in remote areas, teachers often experience insufficient support and manpower for helping children to learn. In collaboration with the college students, the children were offered opportunities to access more fruitful resources and more innovative approaches to tablet reading. Looking toward the future mobile learning trends, technology is becoming more accessible, affordable, and connected. However, design and pedagogical interventions are a key to successful implementation (Schuler, Winters, and West 2013; Huang 2015). It was observed from this study that teachers explored various reading support tools (apps). To promote the optimal use of tablet devices, various strategies and activities were designed to encourage self-regulated reading processes among the children. Successful technology integration in class requires teachers to develop technological and pedagogical knowledge as well as pedagogical decision-making processes so they will be able to make optimal use of technology in teaching (Wengrowicz 2014). This study found that teachers in remote schools employed various teaching strategies and experienced barriers in their interventions to make good use of the tablets to encourage learning. In addition to the teachers’ own efforts to create a support community to share experiences, reflection is also essential to help teachers develop a sense of closeness and mutual understanding in the teaching community.

Conclusion

Mobile reading offers new opportunities for lifelong learning. With the scope of reading extending to the Internet sources, the traditional reading culture has shifted from paper-based to a wide variety of electronic formats. Children from remote areas or disadvantaged families often have more limited access to digital reading than they should in the digital age. In the present study, through community support, the children experienced the excitement of tablet reading. In addition, the college students from the university experienced innovative service opportunities. For children in disadvantaged communities, it is important to make a wide variety of juvenile collections available, free, and accessible for easy use. Policy support from the authorities and the technology industry is needed to ensure the provision of free resources and uninterrupted Wifi to enrich children’s reading experience. Teachers in remote schools created innovative learning opportunities, inviting the children to explore new trends of reading. However, more support from volunteers is needed in designing the story activities...
relevant to the story context and to encourage children to experience the joys of reading. Integrating the use of tablets in reading also provides children with different opportunities to access reading content and to build the needed technology literacy. To help children develop interest and motivation in reading, long-term support from society is needed. Along with the new trend of electronic reading, mobile reading is changing dynamically, stimulated by new opportunities offered by the advances in digital technology. Children in remote areas require ongoing support from society to keep pace with the dynamic reading culture. It is hoped that further research on the issues related to bridging the digital divide will be explored in the future.

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