Situated Learning in a Korean Older Adults’ Computer Classroom: A Situated Activity and Participation in Communities of Practice

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Abstract: This study revealed four aspects of the social context which were embedded in the Korean older adults’ computer learning in a classroom and the participants’ identity changes due to their participation in communities of practice.

Introduction

Although South Korea is one of the most advanced informational societies in the world, gaps in access to and usage of information – a phenomenon know as to digital divide – threaten an individual’s welfare and social equality (Hacker & Mason, 2003; Korea Agency for Digital Opportunity and Promotion, 2004). Older adults are one of information-neglected groups in South Korea. In order to reduce this age-related digital divide, the Korean government has supported computer learning programs in classroom for older adults and from 2002 to 2004, about six hundred thousand seniors participated in these programs (Ministry of Information and Communication, n.d.).

Older adults’ computer learning in classroom has been studied from a cognitive learning perspective. These studies have failed to understand computer learning as social practice. Studies understanding learning as social practice found that learning is fundamentally situated and social interactions, learning tools, and settings influence learning (Hansman & Wilson, 1998; Lave & Wenger, 1991; Lemke, 1997). Studies understanding learning as social practice also believe that people’s identities are influenced when they are involved with communities of practice (Lave & Wenger, 1991; Wenger, 1998). When individuals are involved in learning, people’s identities are influenced in terms of their new abilities, relationships with others, and new activities. Due to the heavy focus on cognitive theoretical explanations of older adults’ computer learning in classroom, we have failed to understand older adults’ computer learning in classroom as social practices, and we know little of how participation in computer learning class affects older adults’ identities.

Literature Review

Since 1990, computers have affected our daily lives, and most of the research on computers and older adults has been conducted since this time. A review of the literature on older adults’ computer learning and use since 1990 revealed four prominent themes: 1) the motivations and barriers of older adults’ usage of computers; 2) identifying age-related differences in computer learning and usage; 3) suggesting instructional tips and design; and 4) changes in attitudes and benefits. First, older adults use the Internet for communicating, developing or maintaining relations, shopping, and searching for information (Hilt & Lipschultz, 2004; Tak & Hong, 2005; Wright, 2000). For older computer users with disabilities, lack of need and computer knowledge, not having available training opportunities, feeling too complicated, and pain were the common reasons of not using computers often (Mann, Belchior, Tomita, & Kemp, 2005). Second, Studies found that older adults are slower and make more errors than
younger adults (Kubeck, Miller-Albrecht, & Murphy, 1999; Marquie, Jourdan-Boddaert, & Huet, 2002; Mead, Sit, Rogers, Jamieson, & Rousseau, 2000). Studies also revealed that the old-old age group is also less efficient at computer-related work than the young-old group (Echt, Morrell, & Park, 1998; Morrell, Park, Mayhorn, & Kelley, 2000). Third, in order to make older adults learn or use computers more easily, much literature has suggested the following instructional tips and designs: 1) specific support for older adults in the early stage of computer courses, 2) benefits of older adults-only classes and peer instructors, 3) advantage of using aid devices for older adults, 4) giving more sufficient practice time or self-paced practice to master learning contents (Baldi, 1997; Bean & Laven, 2003; Filipczak, 1998; Jones & Bayen, 1998; Mayhorn, Stronge, McLaughlin, & Rogers, 2004; Puacz & Bradfield, 2000; Redding, Eisenman, & Rugolo, 1998; Stephenson, 2002; Van Fleet & Antell, 2002). Fourth, many studies found that computer learning experiences bring positive attitudes toward computer-related technologies to older adults (Kelley, Morrell, Park, & Mayhorn, 1999; Lawton, 2001; Morris, 1994; Ogozaleck & others, 1994; Segrist, 2004).

Situated learning theory emphasizes what really happens in learning situations. In learning sites, individuals do not learn by themselves. Learners interact with peer learners, instructors, and various physical features in the environment such as learning tools or the size of classrooms. Situated learning theory emphasizes learning processes as a social and situated activity which cognitive learning theory has neglected (Kirshner & Whitson, 1997a). First, situated learning theory understands that learning is rooted into situations where learning occurs (Schell, 2005). Brown, Collins, and Duguid (1989) argued that situations can be said to co-produce knowledge through activity, so it is possible to argue that learning and cognition are fundamentally situated. Situated learning theory also assumes that learning should be understood as participation in interactive systems among individuals, other people, and materials; therefore, transferring knowledge is dependent on the “consistency or inconsistibility of patterns of participatory process across situations” (Greeno, 1997, p. 12). Second, situated learning theory emphasizes that learning is a social practice (Schell, 2005). Wenger (1998) noted that “we interact with each other and with the world and we tune our relations with each other and with the world accordingly. In other words, we learn” (p. 45). Kirshner and Whitson (1997b) maintained that learning and knowledge occurs in a local, subjective, and socially constructed world, and situated learning theory would provide a model that deals with knowledge and learning as a social and cultural process. Because situated learning theory understands learning as a social practice, communities to which individual learners belong have been important analysis units (Lave & Wenger, 1991; Wenger, 1991).

If we understand learning is a situated activity and a social practice, why do we need to look at individuals’ identities while reviewing situated learning theories? Wenger (1998) maintained that individuals, as members of social communities, build their identities when they negotiate the meanings of their experiences in communities. Situated cognition theory maintains that through learning activity, learners are deeply interactive with the learning situation; therefore learners’ identities can be newly formed thorough learning practice. Situated learning assumes that “agent, activity, and the world mutually constitute each other” (Lave & Wenger, 1991, p. 33). When we understand learning as social practice, learning engages the whole person with relation to not only specific activities but social communities; through learning processes, people become a full practitioner in communities of practice (Lave & Wenger, 1991); “we have claimed that the
development of identity is central to the careers of newcomers in communities of practice, … learning and a sense of identity are inseparable: they are aspects of the same phenomenon” (p. 115).

**Purpose of This study**

The purpose of this study was to understand how Korean older adults’ computer learning in face-to-face classrooms is situated in a social context and how this learning influences older adults’ identities. The research questions that guide this study were as follows:

1. How is computer learning of older adults embedded in the learning context in terms of social interaction, learning tools, physical environment, and culture in the classroom?
2. How do computer learning experiences influence older adults’ identities?

**Research Design**

A qualitative design fits this study because it allows the researcher to explore in-depth influences of situational factors of a computer classroom and changes of older adults’ identities due to participation in a computer course. This study is a qualitative case study. Researchers would use the case study design when they want to explore contextual conditions and believe that contextual conditions are highly relevant to the phenomenon of study (Yin, 2003). Because this study is interested in the context of a computer course and assumes that learning contexts are highly pertinent to learning processes, a case study design is suitable.

The researcher collected data through observations and interviews. The researcher observed thirteen 90-minute sessions of an advanced computer course for older adults only over one and half months. The researcher interviewed ten participants out of fifteen students and one instructor. The means of analysis is the constant comparative analysis method which is an inductive procedure to develop and connect categories by comparing incidents in the data to different incidents, incidents to categories, and categories to different categories (Creswell, 2005).

**Findings**

Interviews and observations revealed four aspects of the social context which were embedded in the participants’ computer learning in the classroom and the participants’ identity changes due to their computer learning.

First, social interactions influenced students’ processes of receiving information. If the participants failed to receive necessary information from lectures, they asked questions or asked for help from peers, volunteer teachers, and the teacher during practice time. Peers and teachers also voluntarily helped some students who needed help to practice computer skills. In addition, the participants also received essential information by observing how peers practiced their computer skills and how teachers taught other students. Although receiving help from others and observing others were beneficial to receive information in most cases, sometimes students’ receiving wrong information hindered their learning processes. Second, learning tools such as computers, notes, and the lack of an LCD projector influenced the participants’ learning. While using their own computers, the participants realized which information that they needed exactly and they made sense of computer skills out of information that they received from others. While reading their notes, the participants came to remember which information was needed in order to build their own computer skills. Because an LCD projector was not installed in the classroom, the participants needed more time and effort to receive necessary information from lectures.
Because using learning tools was closely related to students’ ways of constructing their own skills and receiving information, problems with software and hardware, note-taking during lectures, and incorrect note-taking interfered with the participants’ computer learning.

Third, this study found that where students sat determined the participants’ interactions with the teacher, volunteer teachers, and peers. Students in the front of the classroom had more interactions with the teacher who usually stayed at the front of the classroom. Because of unique classroom structure, students usually interacted with peers in the same column and students in the third column had more difficulties in interacting with peers in other columns. Fourth, Korean culture influenced the ways of the participants’ social interactions. Because of age-hierarchy, the participants were careful when they interacted with peers. In order to save face, some students were reluctant to ask questions to peers. Because Korean people consider teachers as authority figures, the participants felt uncomfortable to ask questions to the teacher and also the teacher tried to control the participants’ learning processes. Last, with regard to identity changes, this study found that the participants’ computer leaning and uses increased self-efficacy related to using computers, raised their self-esteem, and gave them a sense of belonging toward the society and family. The participants’ computer use in their daily life and peer-teaching in the classroom enhanced their self-efficacy in using computers. The participants’ successful computer learning experiences made them feel that their self-esteem, which is overall self-worth, was increased. The participants' computer use also made students believe that they are more closely related to the current society and family.

**Discussion**

This study found that older adults’ computer learning in classroom was a situated activity and was the participants’ process of becoming full practitioners of the two communities of practice: the community of older computer learners and the community of general computer users. These two communities of practice had mutual engagement, joint enterprise, and shared repertoire, which were identified as three dimensions of communities of practice by Wenger (1998). In addition, this study found that the participants experienced identity changes while they become full participants in the two community of practice.

The findings reveal older adults’ computer learning in classrooms needs to be analyzed through diverse interactions among situational factors rather than through a teacher/learner dyad. This study also suggests that older adults’ computer learning in classrooms needs to be understood within communities of practice. Older adults’ computer learning in classrooms resides not in the instructor but in communities of practice in which instructors, learners, learning tools, classroom settings, and culture mutually constitute each other. In addition, this study reveals that identity change issues should be paid more attention in formal adult education settings.

**References**


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