Chapter 6
Technology Enhanced Language Learning in Early Childhood: Competencies for Early Childhood Teachers

Elisabeth Katzlinger
Johannes Kepler University Linz, Austria

ABSTRACT

This chapter deals with a training curriculum for kindergarten teachers to introduce a learning game for technology-enhanced language learning in early childhood and how kindergarten teachers can launch the game in their classes. The game helps children to become familiar with the German language as a mother tongue or as a second language. The game “Schlaumäuse” was developed to enhance the children’s language learning. Children between the ages of four to eight are the target group of this software. The different activities in the game’s story encourage the children’s phases of language learning like structure of syllables, phoneme, rhymes or phonological features.

INTRODUCTION

Language development is a process that starts early in human life, when a person begins to acquire language by learning it as it is spoken and by mimicry. Children’s language development moves from simplicity to complexity. Infants start without language. Yet by four months of age, babies can read lips and discriminate speech sounds. Between the ages of three and six years the children’s language becomes more complex and the children learn to use the rules of grammar correctly. This “emergent literacy” period is a good time for children to learn a second language. Language is broken into two categories: words and grammar. Children develop these two components at different times and in different areas of the brain. During this period of development, the plasticity of the brain provides an excellent opportunity to teach the child a second language, since the brain is already wired for language acquisition (Wasserman, 2007). Whereas the earlier concept of ‘reading readiness’ suggested that there was a discrete maturational point in time when children were ready to learn to read and write, emergent literacy instead proposes that there is a smooth and continuous progression...
in children’s literacy development between the early behaviors children display when interacting with print materials, and those displayed later once children can read independently (Parette, Hourcade, Dinelli & Boeckmann, 2009). According to the emergent view, the skills of reading and writing develop both concurrently and interrelatedly in young children, rather than sequentially. Therefore, early childhood teachers should seek to create a learning environment that integrates both reading and writing.

The creation of the learning environment for language development is essential part of the work of the early childhood teachers. They need to offer learning experiences that surround young learners with meaningful and interactive literacy-based activities in order to support second language development (Akcan, 2005). Early childhood educational games, including digital games, provide an important new opportunity for structuring learning experiences.

Game-based learning is a promising new approach to educating young children that combines information technology and new media. Game designers have developed rich, media-specific methods for engaging and retaining the interest of players. The idea to associate game dynamics with learning content is not new, as every game teaches something, but digital games offer new affordances for learning such as individualized learning sequences, responsive practice sessions, social as well as independent gaming, and new forms of unobtrusive assessment.

The task of the kindergarten teacher is to design a learning environment that fits the interests, strengths and needs of children. However, during their pre-service education, and in their professional life, they have little involvement with Information and Communication Technology (ICT). That’s why the curriculum contains the topic ICT in the kindergarten (not only for language learning). Our experience with a technology-training program shows that kindergarten teachers need assistance in introducing games in their group. The potentials of new media are another highlight of the training. The training provides a place where teachers exchange their points of view about this particular language game as well as other ICT in the kindergarten.

THE GAME: “SCHLAUMÄUSE – KINDER ENTDECKEN DIE SPRACHE”

The game “Schlaumäuse – Kinder entdecken die Sprache” [Children explore language] (Kochan & Schröter, 2006) is a learning game intended to help children to improve their use of the German language as a mother tongue or as a second language. Kochan and Schröter developed the game at the Technical University Berlin in the Computer Learning Workshop. The first kindergarten classrooms that adopted the game were located in social hot spots where there were a large number of children with German as a second language. For most of the children, the computer in these initial kindergarten classes was the only contact with ICT.

The population of children in early childhood settings is becoming increasingly culturally and linguistically diverse, and these changes in demographics have warranted teachers becoming more culturally responsive and better prepared to work with different groups of children and families. This phenomenon can be observed as a characteristic of developed countries, especially in urban areas (Lim, 2009). The learning game is a possibility to bring children together with diverse language acquisition.

In the game “Schlaumäuse,” the children get to know not only the spoken language but also the written language. Young children are interested in letters, reading and writing long before they go to school. This natural interest in written language is sparked by the game. Letter knowledge is indisputably one of the basic foundations for the acquisition of reading and spelling skills in