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Topic	A discussion with computer assisted technology and Lev Vygotsky's scaffolding theory
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Content Introduction	The purpose of this study is to discuss on the computer assisted technology and Lev Vygotsky's scaffolding theory. Scaffolding is a temporary support structure built around learners by other experts to help them carry out the learning process. Teachers and parents should be aware of the child's current ability and then carry out new knowledge built on his or her prior understanding. Besides, a scaffolding environment can be created by simplifying the process of tasks to reduce the frustration in children.

A discussion on computer assisted technology and

Lev Vygotsky's scaffolding theory

Lev Vygotsky (1978), a Russian educational psychologist, indicated that “mental function in the individual can be understood only by examining the social and cultural process from which it derives” (Wertsch & Tulviste, p. 548). The process of learning and the growth of children's cognition need scaffolding. Furthermore, Vygotsky proposed the idea of Zone of Proximal Development (ZPD) which indicates the differences between the adults/experts and children/novices. This zone can be described as the distance between “a child's actual development level,” which is determined by child's independent problem solving alone, and “the higher level of potential development,” which is determined by the child's problem solving with adult guidance or in collaboration with other capable peers (Vygotsky, 1978, p. 86).

Demonstrating Vygotsky's concepts of cognition, language, and learning, Braunger and Lewis (2006) concluded the main ideas of his socio-cultural theory as follows:

1. Knowledge is constructed by individual learners.
2. Language is the main vehicle of thought and plays a central role in mental development.
3. Learning precedes development; in fact, it can lead development.
4. Development cannot be separated from its social context. Social interaction is the

basis of learning and development. Learning is a process of apprenticeship and internalization in which skills and knowledge are transformed from the social into the cognitive plane (p. 21).

Scaffolding is a temporary support structure built around learners by other experts to help them carry out the learning process (Peregoy & Boyle, 2001). Instructors and parents should be aware of the child's current ability and then carry out new knowledge built on his or her prior understanding. Integrating Vygotsky's idea of ZDP into language teaching, learning, and tutoring, many studies (Wertsch & Tulviste, 1992) suggest what a teacher can do to facilitate the child's study: providing a bridge between the child's existing knowledge and the new tasks; supporting children's learning by building a scaffolding learning environment; building the child's interest in the target subject by involving problem-solving activities, games, and proper challenges; recognizing individual's needs by evaluating the child's progress of learning; reducing the frustration and building the child's confidence by simplifying the step of tasks; helping the child's understanding by dividing the tasks into sub goals, offering models or providing directions; and monitoring the child's self-regulated and self-directed learning and maintaining the pursuit of the study goals. While instructors integrate scaffolding into English teaching and learning, Walqui (2003) concludes six major features:

1. Continuity: tasks are repeated, with variations, and are connected to one another.

2. Contextual support: exploration is encouraged in a safe, supportive environment; access to means and goals is promoted in a variety of ways.
3. Inter-subjectivity: mutual engagement and rapport are established; there is encouragement and non-threatening participation in a shared community of practice.
4. Contingency: task procedures are adjusted depending on actions of learners; contributions and utterance are oriented towards each other and may be co-constructed.
5. Handover/takeover: there is an increasing role for the learner as skills and confidence increase; the teacher watches carefully for the learner's readiness to take over increasing parts of the action.
6. Flow: skills and challenges are in balance; participants are focused on the task and are in tune with each other (p. 6).

Scaffolding is a temporary support structure built around learners by other experts to help them carry out the learning process (Peregoy & Boyle, 2001). A teacher can facilitate the child's learning by being aware of the child's current ability, supporting the child's learning by building a scaffolding environment, and then developing new knowledge by carrying out child's prior understanding. Besides, a scaffolding environment can be created by simplifying the process of tasks to reduce the frustration in children.

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