# Scaffolding as a teaching strategy

Observational research on early childh learning shows that parents and other caregivers facilitate learning by providing scaffolds. The scaffolds provided are activities and tasks that: Motivate or enlist the child's interest related to the task Simplify the task to make it more manageable and achievable for a child Provide some direction in order to help the child focus on achieving the goal Clearly indicate differences between the child's work and the standard or desired solution Reduce frustration and risk Model and clearly define the expectations of the activity to be performed Bransford, Brown, and Cocking, 2000).

The activities listed above are also detailed in the Executive Summary of the Research Synthesis on Effective Teaching Principles and the Design of Quality Tools for Educators, which refers to these as "…

Rogoffs six characteristics of scaffolded instruction" (Ellis, Larkin, Worthington, Principle 5 section, Para. 2). In the educational setting, scaffolds may include models, cues, prompts, hints, partial solutions, think-aloud modeling and direct instruction (Hartman, 2002).

In Teaching Children and Adolescents with Special Needs the uthors provided an example of a procedural facilitator (hint, cue-card, partially completed example).

When trying to teach the math skill of rounding, a teacher may list, "… the steps of rounding hundreds beginning with the first step of ' 1. Look at the number in the ten's position', (this) provides hints to the students" (Olson and Platt, 2000, p. 180).

This cue prompts the students to complete the next step of the task.

Educators may also use questions as scaffolds to help students solve a problem or complete a task. Teachers may increase the level of questioning or specificity until the student is able to provide a correct response. This type of scaffold is reflected in the following excerpt, "..

. if you receive no response or an incorrect response after asking the question, " How do we change lady to ladies? " you should proceed with a more intrusive verbal prompt: " What is the rule? " to remind the student that there is a rule.

If necessary, continue with " What do we do when a word ends in y to make it plural? " to give the student a part of the rule" (Olson and Platt, 2000, p. 186). As the student develops his or her ability with applying the rule, the number and intrusive nature of the questions would be decreased until the student can do the task without rompting.

Following the use of teacher provided scaffolds, the educator may then have the students engage in cooperative learning. In this type of environment students help students in small group settings but still have some teacher assistance.

This can serve as a step in the process of decreasing the scaffolds provided by the educator and needed by students (Hartman, 2002). Teachers have also used scaffolding to engage students in research work and learning. In this context, scaffolding facilitates organization of and focus for students'

research (McKenzie, 1999). The structure and clearly defined expectations are the ost important component of scaffolding in this context.

The teachers provide clarity and support but the students construct the final result through their research.

In a chapter on scaffolding, Scaffolding for Success, Jamie McKenzie provides a visual image analogy of how scaffolding works, " The workers cleaning the face of the Washington Monument do not confuse the scaffolding with the monument itself. The scaffolding is secondary. The building is primary. " (McKenzie, 1999, Matters of Definition section, Para. 6).

He goes on to describe eight characteristics of scaffolding. The first six describe aspects of scaffolding instruction. The last two refer to outcomes resulting from scaffolding and are therefore presented in a later section of this paper.

According to McKenzie scaffolding: 1. Provides clear direction and reduces students' confusion – Educators anticipate problems that students might encounter and then develop step by step instructions, which explain what a student must do to meet expectations.

2. Clarifies purpose – Scaffolding helps students understand why they are doing the work and why it is important. 3. Keeps students on task – By providing structure, the scaffolded lesson or research project, rovides pathways for the learners.

The student can make decisions about which path to choose or what things to explore along the path but they cannot wander off of the path, which is the designated task. 4.

Clarifies expectations and incorporates assessment and feedback – Expectations are clear from the beginning of the activity since examples of exemplary work, rubrics, and standards of excellence are shown to the students. 5. Points students to worthy sources – Educators provide sources to reduce confusion, frustration, and time. The students may then decide which of these sources to use.

6.

Reduces uncertainty, surprise, and disappointment – Educators test their lessons to determine possible problem areas and then refine the lesson to eliminate difficulties so that learning is maximized (McKenzie, 1999). Scaffolded instruction is also employed in problem based learning environments. " Problem-based learning (PBL) is an educational approach that challenges students to " learn to learn". " (Ngeow and Yoon, 2001, p.

1). In this type of classroom the teacher must assess the activities that the students can perform independently and what they must learn to complete the task. The teacher then, "… signs activities which offer Just enough of a scaffold for students to overcome this gap in knowledge and skills.

" (Ngeow and Yoon, 2001, p. 2). The authors also describe several of same scaffolding activities or characteristics that were presented by Bransford,

Brown and Cocking and McKenzie thus illustrating scaffoldings applicability to various educational settings. II.

Scaffolding – Related Theory, Theorists, and Research Scaffolding instruction as a teaching strategy originates from Lev Wgotskys sociocultural theory and his concept of the zone of proximal development (ZPD). Lev

Wgotsky was a Soviet psychologist whose works were surpressed after his death in the 1930s and were not discovered by the West until the late 1950s (" Lev Wgotskys archive," n. d. ). His sociocultural theory proposes that social interaction plays a fundamental role in the development of cognition.

(" Social Development Theory," n. d. ). Wgotsky "..

. theorized that learning occurs through participation in social or culturally embedded experiences. " (Raymond, 2000, p. 176). In Wgotskys view, the learner does not learn in isolation.

Instead learning is strongly influenced by social interactions, which take place in meaningful contexts.

Children's social interaction with more knowledgeable or capable others and their environment significantly impacts their ways of thinking and interpreting situations. A child develops his or her intellect through internalizing concepts based his or her own interpretation of an activity that occurs in a social setting. The communication that occurs in this setting with more knowledgeable or capable others (parents, teachers, peers, others) helps the child construct an understanding of the concept (Bransford, Brown, & Cocking, 2000).