Scaffolding as an Effective Teaching Strategy

The following article is a compilation of educational resources on the teaching strategy defined as Scaffolding. Some of the references cited are listed at the end of the article.

In order to be effective, all teaching assistants need to gain the ability to actively help students bridge the gap between what may be called “prior knowledge” and the academic outcomes intended by their teachers. Through the use of an instructional strategy known as Scaffolding, teachers from all disciplines can provide the support some learners need when new content and assignments are presented.

Scaffolding instruction originates from Lev Vygotsky’s Constructivist theory and his concept of individualized support based on the learner’s need. In Scaffolding instruction, the learner’s development is facilitated by an instructor or “more knowledgeable other.” The scaffolds support a student’s ability to build on prior knowledge and internalize new information. The activities provided in scaffolding instruction are just beyond the level of what the learner can do alone (Olson & Pratt, 2000).

An important aspect of Scaffolding instruction is that the supports are temporary, and as the learner’s abilities increase, the supports should be slowly withdrawn. When the learner is able to complete the task independently, the goal of the educator is achieved. The student has become an independent, self-directed learner and problem solver.

The characteristics of this teaching strategy were clarified by Jamie McKenzie, a well-known educator and researcher. His visual image analogy uses the task of workers cleaning the face of the Washington Monument and their critical need to focus not on the scaffolding, which is secondary to their job, but the building. McKenzie likens this analogy to the following aspects of Scaffolding instruction:

1. Provides clear directions
2. Clarifies purpose
3. Keeps students on task
4. Offers assessment to clarify expectations
5. Points students to worthy sources
6. Reduces uncertainty, surprise and disappointment
7. Delivers efficiency
8. Creates momentum

One example of how instructors might implement this strategy in their classroom teaching is by inserting a series of brief thinking tasks (such as completing sentence starters or comparing or contrasting two items) into their lectures so that students can think about important content as the lesson unfolds.

Although there are some drawbacks to the use of Scaffolding as a teaching strategy the positive impact it can have on students’ learning and development can be far more beneficial.

Adapted from the following sources:
OCTOBER
Classroom Conflict Resolution for GTAs
   Wednesday, October 12, 2005

Teaching-Related Video/Discussion Series
   “Creating an Inclusive Classroom: Race and Ethnicity”
   Wednesday, October 19, 2005

Mastering the Control Panel in Blackboard
   Monday, October 24, 2005

NOVEMBER
Developing Your Teaching Portfolio
   Thursday, November 3, 2005

Blackboard Communication Tools
   Friday, November 11, 2005

Teaching-Related Video/Discussion Series
   “Creating an Inclusive Classroom: Aging and Physical Ability”
   Tuesday, November 15, 2005

Mark your calendars and plan to attend the Spring TA Orientation on January 13, 2006!

Registration Information: These programs are open to all graduate teaching assistants at NIU. To pre-register for a program please contact Chigozie Achebe at Faculty Development and Instructional Design Center by phone at 815-753-0614 or email at tadev@niu.edu and provide your full name, department, email address, phone number, and the title of the program you wish to register for. Program locations will be made available when you register. If you register for a program, please make every effort to attend. If you are unable to attend, please notify the Center at least two working days in advance so that others on the waiting list can be accommodated. Visit our website at http://www.niu.edu/facdev/ for a current schedule of TA programs and other information.

Technology in Teaching, Q & A

Q: As a TA I am solely responsible for teaching a course. Can I request a course in Blackboard?

A: If you are assisting faculty, they can add your z-id to their course and list you as the TA. If you are teaching your own course, you can request a Blackboard course. First, you need to contact the department in which you are teaching and request a Novell login for Blackboard. Once that has been assigned, you can login to the course request server. Instructions for requesting courses are online at: http://www.blackboard.niu.edu/blackboard/requests.htm

Q: My students are having problems with the test-taking feature of Blackboard. Are there some recommendations for reducing the number of errors students encounter when using Blackboard’s testing?

A: Campus resources list suggestions for both the student and faculty with regard to Blackboard testing. The instructions are online at: http://www.blackboard.niu.edu/blackboard/assessment.htm#suggestions

Q: What functions can I perform as a TA in the course taught by the faculty member I work with?

A: Once faculty adds you to the course as a TA, you have most of the same privileges as faculty. You can upload documents, enter grades, deploy exams and post announcements, to name just a few course tasks TAs frequently perform.

Q: When students contact me regarding technical questions I frequently do not know how to assist them. Any suggestions?

A: Faculty and TAs are the content experts in a given course. If there are technical questions, refer students to the ITS Customer Support Center at 815-753-8100 or helpdesk@niu.edu. ITS have extensive knowledge of login, download, and many other technical issues students are challenged with.
Approximately 124 graduate teaching assistants attended the fall 2005 Teaching Assistant Orientation, coordinated by the Faculty Development and Instructional Design Center (FDIDC), on August 16, 2005. The general session included the following presentations throughout the morning and early afternoon:

- “Managing Classroom Dynamics” by Tim Griffin, Office of the Ombudsman
- “Cross-Cultural Communication Panel” by the following Graduate Teaching Assistants: Ioana Cionea (Communication); LaMetra Curry (Adult Continuing Education); Devan Gourdine (Engineering Technology); Miko Kanekawa (Biological Sciences); Wayne Wilkinson (Psychology)
- “Stress and Time Management” by Tim Paquette, Student Counseling and Development
- “Preventing & Handling Academic Dishonesty” by Larry Bolles, Judicial Affairs
- “Campus Resources Panel” by the following NIU Staff/Faculty members: Don Bramlett, Office of Retention; Bradley Peters, English/Writing Across the Curriculum; Earl Shumaker, University Libraries

Afternoon breakout sessions covered the following topics:

- “Surviving the First Day” by Christopher Jones, Political Science
- "Understanding Students' Learning Styles" by Jenny Parker, Kinesiology and Physical Education
- “Grading Tips for Easy and Effective Evaluation” by Jim Ciesla, Allied Health Professions
- “Accommodating Students with Disabilities” by Nancy Kasinski, Center for Access-Ability Resources
- “Conducting Laboratory Sessions” by John Dickerman, Biological Sciences

Participants who attended this year’s TA Orientation engaged in two interactive panel discussions, in addition to informative presentations by NIU staff and faculty members. The general session began with “Managing Classroom Dynamics,” by Tim Griffin, University Ombudsman. He presented the rights and responsibilities of TAs, and encouraged the use of preventive and proactive techniques to address undesirable behavior in the classroom. Griffin’s presentation was followed by a panel of TAs who discussed “Cross-Cultural Communication” based on their classroom experiences. The panel presentation appeared to be well-received by the number of TAs who lingered and continued the discussion with the panelists during the morning break.

Tim Paquette from the Student Counseling and Development Center demonstrated relaxation techniques in a presentation entitled, “Stress and Time Management;” Larry Bolles, spoke to the TAs about “Handling Academic Dishonesty and Difficult Students.” Bolles’ frank advice was based on the many anonymous case studies he has handled since 1978 as director of the Judicial Affairs office. The final panel discussion on “Campus Resources” featured three NIU faculty and staff members discussing services that TAs can use not only to inform their students but also themselves. Participants also attended afternoon breakout sessions, which emphasized the roles and responsibilities of TAs.

Based on responses from the fall 2005 TA Orientation Pre-Survey, 41 TAs who attended this year’s event were new to NIU; 32 TAs who attended the Orientation reported at least one year’s classroom teaching experience. The Pre-Survey is distributed annually by Faculty Development and Instructional Design Center to confirm TA Orientation participation and to enhance program planning. The TA Orientation could not have been possible without the support of all the presenters who volunteered their time to share their expertise and experience during the daylong program. All participants received presentation materials, lunch and refreshments. Certificates of Participation were mailed to the department of each participant.

The following participants received $25 gift certificates from the NIU Bookstore in door prize drawings conducted during the TA Orientation:

- Julie Heldt – Department of Biological Sciences
- Thet H. Myint – Department of Technology
- Michael Wright – Department of Geology
- Blake Klinkner – Department of Political Science
- Dustin Oltman – Department of Geography
- Radhakrishna Rajagopal – Mechanical Engineering

Congratulations to all the winners!
How to Use a Variety of Teaching Methods to Address Different Learning Styles
Recommended by Dr. Diana K. Kelly, Head of the Centre for Academic Practice and Student Learning (CAPSL) at Trinity College in Dublin, Ireland

It is generally a good idea to vary the mode of learning about every 20 minutes. By varying the mode of learning fairly frequently, students will pay closer attention and are likely to become more involved in learning.

1. Lecture meets the needs of aural learners: those who learn by listening.
   - Lecture supplemented with visuals meets the needs of both aural and visual learners (those who learn best by seeing pictures or demonstrations).
   - Lecture supplemented with printed handouts, or a printed lecture outline on an overhead transparency or on the board meets the needs of both aural and print learners (those who learn by reading printed words). “Print” learners also like to learn by taking notes during lectures or presentations.
   - Lecture supplemented with a Question and Answer session, or a "punctuated" lecture in which the instructor poses a question to students every few minutes during the lecture, meets the needs of aural and interactive learners (those who learn by talking it out).

2. Reading Assignments and Writing Exercises meet the needs of print learners.

3. Videotapes and films meet the needs of aural and visual learners.
   - If followed with small group discussion, paired activities, or debate these also meet the needs of interactive learners.

4. Role-playing Activities meet the needs of interactive learners.
   - If the students must move around as a part of the role play, "kinesthetic" learners (those who learn through physical movement) will also benefit.

5. Physical Activities including field trips, physical games, walking up to the board to write answers, and other movement are preferred by kinesthetic learners.

6. Hands-on activities in which students actually get to touch materials or use equipment meet the needs of "haptic" learners: those who learn through their sense of touch.

Learning Styles Websites
The Institute for Learning Styles Research, Inc. TIP Concepts – Cognitive/Learning Styles
Perceptual Modality Preference Survey (PMPS) http://www.gwu.edu/~tip/styles.html
http://www.learningstyles.org

http://www.ldrc.ca/projects/tscale/

Sternberg-Wagner Thinking Styles Inventory

The Graduate Student Newsletter (GSN) is published once each term for the Fall, Spring and Summer and eagerly accepts news about graduate students’ scholarly, creative, and professional achievements, and graduate studies events from students and departments! Send information to Karen Patton at gscolloq@niu.edu. Submissions deadline for Spring Newsletter is December 1, 2005.

Reminder: The next round of proposals for 2006 Graduate Colloquium Speakers are due by November 1, 2005. Information can be found on the Graduate School website: http://www.grad.niu.edu/gscolloq/gradcolhomepage.html

TA Connections is published every fall and spring semester by Faculty Development and Instructional Design Center, Adams Hall 319, Northern Illinois University, DeKalb, Illinois 60115. Phone: (815) 753-0595, Email: tadev@niu.edu, Fax: (815) 753-2595. Visit our website at http://www.niu.edu/facdev/ for a current schedule of TA programs and other information or contact: Chigozie Achebe, Teaching Assistant Coordinator, at (815) 753-0614, cachebe@niu.edu, or subscribe to the GTA Listserv.