An important question in teaching notetaking is how reading and study skills specialists lead students to become self-motivated and self-directed in their notetaking regime. A promising answer to this question can be found in a systematic approach to training students and evaluating notetaking that involves four stages over the course of a semester. The first two stages do not differ markedly from traditional teaching practices. During the first stage, modeling, the instructor plays a tape of a previously recorded introductory lecture from an undergraduate survey course, simultaneously demonstrating a selected notetaking method using an overhead projector and think-aloud, self-report or retrospective report strategies. The second stage is practicing, during which students engage in long-term, monitored practice with notetaking techniques. The third and fourth stages of the training model occur simultaneously in the context of notetaking practice. As students practice notetaking throughout the semester, their attempts are evaluated with the Notetaking Observation Training and Evaluation Scale (NOTES). Students receive both instructor feedback and peer review of the quality of their notetaking, and chart their progress with the NOTES packet. NOTES student feedback becomes a weekly function, and instructors using NOTES with a class have ready access to data that document their students' progress in notetaking. (A description of the NOTES scale and the scale are included.) (HTH)
Training and Evaluating Notetaking

James R. King
Texas Woman's University

Norman A. Stahl
Georgia State University

April 1, 1985

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Norman A. Stahl"

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

The body of this paper will appear in the First Proceedings of the Annual Convention of the Texas State Council of the International Reading Association. The NOTES procedure appears only in this College Reading and Learning Assistance Technical Report.
Training and Evaluating Notetaking

Transcribing, organizing, and later retrieving information presented in course lectures and from reading assignments are essential skills for all college students. A systematic approach to notetaking such as the Cornell Method (Pauk, 1984) has proven to be helpful in training students unaccustomed to the encoding of large amounts of complex and generally unfamiliar content. However, the rigors of systematically applying any of the formal approaches to notetaking often constitutes a threshold of effort that students, particularly those at risk, are not willing to overcome. An important question in teaching notetaking then is "How do reading and study-skills specialists lead students to become self-motivated and self-directed in their notetaking regime?" A promising solution to this effort/risk paradox can be found in a systematic approach to training and evaluating notetaking.

The approach detailed involves four stages that occur over the course of a semester's work. The first two stages, modeling and practicing notetaking do not differ markedly from traditional teaching approaches. However, combining these accepted approaches with evaluation and reinforcement appears to motivate students and also provides guidance for ongoing practice. The main ingredient in this successful intervention is a model for notetaking called the Notetaking Observation, Training and Evaluation Scales (Stahl and King, 1984). Each stage of the training and the
evaluation procedure is subsequently discussed. Following is a description as well as suggestions for the use of NOTES in notetaking training.

**MODELING**

During the first session of the modeling stage of notetaking training, the instructor plays a tape of a previously recorded introductory lecture from a typical undergraduate survey course. As the lecture proceeds, the instructor demonstrates a selected notetaking method by taking notes from the lecture on transparencies with an overhead projector. The students are able to observe the notetaking process while listening to the taped lecture. The instructor may also find it helpful to use think-aloud self report strategies while taking notes (Olshavsky, 1976-77) or retrospective reports (Collins, Brown and Larkin, 1980) that would recapture what the instructor is (or was) thinking while constructing the notes. These comments would be directed at capturing essential content, arranging that content on the pages of notes, and cueing the essential ideas with recall cues, questions and/or summaries. During the next class session the instructor plays additional tapes of lectures and takes notes of the lectures’ content. The students also take notes of this lecture. Since the instructor's notes are on transparencies, the students are able to observe and copy the preferred format. At intervals, the instructor stops the tape so that the entire group can discuss the content of the lecture, their
representation of the content, and problems encountered in the notetaking process.

Throughout the modeling stage the pupils are presented lectures of increasing length. At some point, an instructor may choose to cease working with transparencies in order to move around the room observing each student's notetaking habits and scan the notes they are taking. As an additional step, different students might be selected to take notes on transparencies so that peers may learn from each others' notetaking strategies and tactics.

The main purpose of the modeling stage is to show students an effective method of recording the content of lectures. Part of this effectiveness is realized in the structure of the notes, the use of recall cues, and possibly in summarization activities at the end of lectures or units. Audio (or video) tapes of lectures are used so that the course instructor can either demonstrate notetaking or work with individuals in the class, as the rest of the group becomes more sophisticated and independent in the overall notetaking skills.

PRACTICING

In the second stage of the training process, students engage in long-term, monitored practice with notetaking techniques. During the practice stage, students are instructed to use and adapt the techniques that were previously modeled in one of their other classes throughout the remainder of the semester. The use of an actual class
Notes 4

has several advantages. Students seem willing to practice the new techniques if doing so does not require additional assignments (King, Stahl and Brozo, 1984). There is also something to be said for the ongoing reinforcement students receive when they "keep up" with an outside class. Their confidence with the selected class must certainly transfer to the process of learning notetaking as a real study technique.

Nevertheless, there are also disadvantages with real-time classroom applications of notetaking as part of the practice stage. An organized approach to notetaking is clearly best suited to reading-lecture-test format courses. Indeed, it appears that social science and to a lesser degree, natural science courses are best suited to approaches such as the Cornell Method (Pauk, 1984). While adaptations to any organized approach to notetaking may seek to accommodate lab-type courses, mathematics (other than theoretical math) and foreign language, the notetaking appears to benefit students in social science content. The second possible disadvantage may occur in students' unwillingness to experiment with a content course being taken for credit. The perceived risk of a poor grade which may result from experimenting with notetaking may outweigh perceived gain that may occur in notetaking ability. Therefore, it is the responsibility of the study skills instructor to routinely interact with and support the students as they experiment. The final analysis of these
advantages and disadvantages should be made in light of what will facilitate students' practice with the modelled techniques.

EVALUATING AND REINFORCING

The third and fourth stages of the training model actually occur simultaneously in the context of notetaking practice. Throughout the semester, as students' practice notetaking, their attempts are evaluated with the Notetaking Observation Training and Evaluation Scale. NOTES is adapted from evaluation approaches for notetaking formats by Fairbanks and Castello (1977), Okey (1979), and Robinson (1941). Yet, NOTES differs from these previous approaches to evaluation by providing both students and teachers with a set of ordered, objective criteria for evaluating and monitoring progress in notetaking skill acquisition throughout the semester. Using NOTES, students receive both instructor feedback and peer review of the quality of their notes. The students also receive reinforcement as they chart their progress with a record chart in the NOTES packet. When the feedback on notetaking comes solely from the course instructor, fewer evaluations may result simply because of the amount of effort required in reviewing several volumes of students' notes. Yet, with NOTES student feedback becomes a weekly function, and instructors using notes with a class have ready access to data that documents their students' progress in notetaking. These applications of NC ES are described in the following section.
DESCRIPTION OF NOTES

The Notetaking Observation Training and Evaluation Scale (Stahl and King, 1984) is an evaluation system for growth in students' notetaking development. Part of the evaluation is peer feedback on notetaking. Another aspect is a record keeping and management system. This increases student awareness of their progress and reinforces any gains made. Readiness for notetaking, current habits of notetaking, and progress towards the development of notetaking competency are assessed and/or recorded in the six sections of NOTES. Section one is a General Profile of students' personal backgrounds as they might influence students' notetaking abilities. The second section, Assessment for NOTES, is a self-evaluation completed at the same time as the previous section. Using a three-point Likert-type Scale, students respond to 33 statements about prelecture, lecture, and postlecture notetaking habits. The students' total scores compared with a possible 100 points, serve as pretraining measures of their notetaking behavior.

The third section, the NOTES Evaluation Criteria, assesses notetaking production throughout the training and practice period in three different aspects: format, organization and meaning. The format criteria make students aware of the importance of readiness and routine in the notetaking process. Criteria on organization assess and train specific routines for recording lecture and textual notes. These routines are centered on physical aspects such
as page usage, idea arrangement, and recall strategies. The third set of criteria, recording of meaning, necessarily deals with page usage, but the primary focus is on capturing the meaning of the presentation.

The NOTES Record Sheet, the fourth section of the materials, also contains the criteria headings and subheadings used in the evaluation criteria. Here each student or a peer records an appropriate score based on each of the listed criteria. As evaluation sessions occur throughout the semester, students chart their progress on the NOTES Progress Chart, section five, which is found on the following page of NOTES. Finally, the Posttraining Assessment for NOTES, section six, is completed at the end of the semester. The score on the posttraining assessment is compared with the pretraining assessment as one measure of student progress.

In classroom use, students normally choose a partner for evaluation. Notes are exchanged along with the NOTES records for the students. As students evaluate the different sections and separate criteria within those sections, they record a score based on the five point (0-4) Likert-type Scale in the Evaluation Criteria. The scale also includes scaled descriptors to help students rank the note sample they are evaluating.

According to a recent meta-analysis by Henk and Stahl (1984), notetaking appears to be successful in studies where it facilitates students' external storage of lecture content.
so that it is available for later study. A contrasting view of notetaking holds that encoding functions inherent in the act of taking notes is responsible for the facilitative effect gained from recording lectures. The meta-analysis suggests that it is the later study of the notes that is important and as a result, the format of the notes is crucial. Consequently, the training of a notetaking method, whichever may be chosen from those available, is clearly a worthwhile endeavour and one that deserves additional study. NOTES may provide a systematic vehicle for that study as well as a viable teaching approach.

REFERENCES


USING THE NOTES EVALUATION PROCEDURE

The procedure for evaluating your partner's notes with the NOTES Evaluation procedure consists of eight simple steps. The following set of directions will help you to effectively measure the quality of your partner's notetaking ability over the term.

**STEP 1.** Select approximately five pages of your partner's class notes or textbook notes. These notes are the materials you will carefully evaluate using the NOTES Evaluation Criteria on page four of your partner's NOTES booklet.

**STEP 2.** Before you begin to evaluate your partner's notes, be sure to quickly preview the pages to develop a general sense of the content.

**STEP 3.** Sign your name and write the date of the evaluation in the correct space at the bottom of the NOATS Record Sheet.

**STEP 4.** Next, refer to the NOTES Evaluation Criteria on page 4. Here you will find three main sections (i.e., FORMAT, ORGANIZATION, and MEANING); each includes four or five criteria. You will find, for instance, that the first criterion within the FORMAT section is use of ink. It is concerned with the type of writing instrument employed when taking notes. To evaluate your partner's performance on this criterion, read over his or her notes with this particular criterion in mind. Then find the statement to the right of the criterion that best describes the quality of the five pages of notes being evaluated. You must put yourself "in the shoes" of the writer to use the criteria.
Based on the selected description, assign the appropriate score (0-4 points) from the scale. As an example, if after reviewing your partner's notes you concluded that he or she always uses a pen for notetaking, you would assign a score of four (4) points. On the other hand, the regular use of a pencil would earn your partner a score of zero (0).

**STEP 5.** Once you assign a score on a particular criterion, be sure to enter the score in the appropriate box on the NOTES Record Sheet (page 5) for that rating session.

**STEP 6.** Follow the same procedure for each of the 14 criteria. As you become more familiar with the NOTES Evaluation procedure, you will be able to rate your partner's performance on several criteria at one time.

**STEP 7.** Now total your partner's scores for the entire evaluation procedure in the appropriate box at the bottom of the NOTES Record Sheet. A perfect score would total 52 points.

**STEP 8.** Finally, chart the score on the NOTES Progress Chart on page 6. Then sign your name in the appropriate space and record the date of the evaluation.

**A Final Point**

As an informed evaluator, you should assign the point value your partner's notes warrant. Since you are attempting to assist your partner to become skillful in the notetaking process, it is to his or her benefit to receive an accurate, objective evaluation on each of the criteria. The two of you should examine the evaluated selection. Be sure to offer your partner helpful suggestions in improving the quality of his or her notes.
Notetaking Observation Training and Evaluation Scale

NOTES

by

James R. King
Texas Woman's University

Norman A. Stahl
Georgia State University

General Notetaking Profile

Name: _______________________________________
Course: ______________________________________ Date: ________________
Class level: _____________________________ Birthday: ________________
Major: _____________________________ Minor: _____________________________
Number of credit hours completed: ______
Number of credit hours enrolled: ______
Date of your last eye exam: ___________ Do you wear glasses? ______
Do you have hearing problems? ______ Do you wear a hearing aid? ______
Do you have any physical conditions which might hinder your notetaking ability? (Explain) _______________________________________

What is your native language? (Please circle) English Spanish
Tagalog Japanese Vietnamese Other _______________________

Have you ever enrolled in a class that taught you how to take notes? (Briefly describe) _______________________________________

Please complete this sentence. The major problems I encounter when taking notes are _______________________________________

Honestly rate your notetaking skills. (Please circle)

excellent good poor very poor
* * * * * * * * * * * * * * * * * * * * * * * *

Instructor's Suggestions _______________________________________

____________________________________

---
Assessment for NOTES

Pre Lecture

1. I read assignments and review notes before my classes.  
    N S A

2. I come to class with the necessary tools for taking notes (pens and 8 1/2 x 11" ruled paper).  
    N S A

3. I sit near the front of the class.  
    N S A

4. My notes are organized by subjects in an 8 1/2 by 11" looseleaf notebook.  
    N S A

5. I have a definite notetaking strategy.  
    N S A

6. I adapt my notetaking for different classes.  
    N S A

Lecture

1. I use my pen in notetaking.  
    N S A

2. I use only one side of the page in taking notes.  
    N S A

3. I date each day's notes.  
    N S A

4. I use my own words in writing notes.  
    N S A

5. I use abbreviations whenever possible.  
    N S A

6. My handwriting is legible for study at a later time.  
    N S A

7. I can identify the main ideas in a lecture.  
    N S A

8. I can identify details and examples for main ideas.  
    N S A

9. I indent examples and details under main ideas to show their relationship.  
    N S A

10. I leave enough space to resolve confusing ideas in the lecture.  
    N S A

11. I ask questions to clarify confusing points in the lecture.  
    N S A

12. I record the questions my classmates ask the lecturer.  
    N S A

N = NEVER      S = SOMETIMES      A = ALWAYS
### Lecture (continued)

13. I am aware of instructor signals for important information.   
   N S A

14. I can tell the difference between lecture and nonrelated anecdote.   
   N S A

15. I take notes until my instructor dismisses class.   
   N S A

### Post Lecture

My notes represent the entire lecture.   
   N S A

2. I review my notes immediately after class to make sure that they contain all the important points of the lecture and are legible.   
   N S A

3. I underline important words and phrases in my lecture.   
   N S A

4. I reduce my notes in the recall to jottings and cues for studying at a later date.   
   N S A

5. I summarize the concepts and/or principles from each lecture in a paragraph.   
   N S A

6. I recite from the jottings and cues in the recall column on a weekly basis.   
   N S A

7. I use my notes to draw up practice questions in preparation for examinations.   
   N S A

8. I ask classmates for help in understanding confusing points in the lecture.   
   N S A

9. I use my notes to find ideas that need further explanation.   
   N S A

10. I am completely satisfied with my notetaking in my courses.   
    N S A

11. I can understand my notes when I study them later.   
    N S A

12. I use the reading assignment to clarify ideas from the lecture.   
    N S A

N = NEVER  
S = SOMETIMES  
A = ALWAYS
## NOTES Evaluation Criteria

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE OF INK</td>
<td>I use pen consistently.</td>
<td>I use pen and pencil.</td>
<td>I use pencil.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HANDWRITING</td>
<td>Others can read my notes.</td>
<td>Only I can read my notes.</td>
<td>I can't read my notes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTEBOOK</td>
<td>I use a loose-leaf binder.</td>
<td>I use a spiral notebook.</td>
<td>I don't use a notebook.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USE OF PAGE</td>
<td>I leave enough space for editing.</td>
<td>I leave some space for editing.</td>
<td>My notes cover the page.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>HEADINGS</td>
<td>I use new headings for each main idea.</td>
<td>I use headings inconsistently.</td>
<td>I don't use headings for changes in main ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBTOPICS</td>
<td>I group subtopics under headings.</td>
<td>I don't indent subtopics under headings.</td>
<td>My subtopics are not grouped.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECALL COLUMN</td>
<td>I use cue words, symbols to make practice questions.</td>
<td>I use cue words in a recall column.</td>
<td>I do not use a recall column.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABBREVIATION</td>
<td>I abbreviate whenever necessary.</td>
<td>I use some abbreviation.</td>
<td>I don't abbreviate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUMMARIES</td>
<td>I summarize lectures in writing.</td>
<td>I write a list of summary lecture topics.</td>
<td>I don't summarize lectures.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEANING</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>MAIN POINTS</td>
<td>I identify main points with symbols and underlining.</td>
<td>I list main points.</td>
<td>I don't list main points.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPORTING DETAILS</td>
<td>I show the relationships between main ideas and details.</td>
<td>My notes list details.</td>
<td>I don't list details.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXAMPLES</td>
<td>I list examples under main points.</td>
<td>I list some examples.</td>
<td>I don't record examples.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESTATEMENT</td>
<td>I use my own words.</td>
<td>I use some of my own words.</td>
<td>I use none of my own words.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORMAT</td>
<td>TOTALS</td>
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<tr>
<td>Use of ink</td>
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<tr>
<td>Handwriting</td>
<td></td>
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<td>Notebook</td>
<td></td>
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<td></td>
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<tr>
<td>Use of page</td>
<td>FORMAT TOTALS</td>
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<table>
<thead>
<tr>
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<th>TOTALS</th>
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<tr>
<td>Headings</td>
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<tr>
<td>Subtopics</td>
<td></td>
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<tr>
<td>Recall cues</td>
<td></td>
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<tr>
<td>Abbreviation</td>
<td></td>
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<tr>
<td>Summaries</td>
<td>ORGANIZATION TOTALS</td>
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</table>

<table>
<thead>
<tr>
<th>MEANING</th>
<th>TOTALS</th>
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<tbody>
<tr>
<td>Main points</td>
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</tr>
<tr>
<td>Supporting details</td>
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<td>Examples</td>
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<td>Restatement</td>
<td>MEANING TOTALS</td>
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<tr>
<th>EVALUATION TOTALS</th>
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<tbody>
<tr>
<td>TOTALS</td>
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</table>

Evaluator/Date
Notetaking Got You Down? The ability to take EXCELLENT notes doesn't just happen overnight. It takes lots of practice, which you will get at college. If you are having problems, ask your study-skills instructor for help. Your instructor may refer you to one or more of the books listed below. You may also visit the learning assistance center at your school.


Assessment for NOTES

Pre Lecture

1. I read assignments and review notes before my classes.  
   N  S  A

2. I come to class with the necessary tools for taking notes (pens and 8 1/2 x 11" ruled paper).  
   N  S  A

3. I sit near the front of the class.  
   N  S  A

4. My notes are organized by subjects in an 8 1/2 by 11" looseleaf notebook.  
   N  S  A

5. I have a definite notetaking strategy.  
   N  S  A

6. I adapt my notetaking for different classes.  
   N  S  A

Lecture

1. I use my pen in notetaking.  
   N  S  A

2. I use only one side of the page in taking notes.  
   N  S  A

3. I date each day's notes.  
   N  S  A

4. I use my own words in writing notes.  
   N  S  A

5. I use abbreviations whenever possible.  
   N  S  A

6. My handwriting is legible for study at a later date.  
   N  S  A

7. I can identify the main ideas in a lecture.  
   N  S  A

8. I can identify details and examples for main ideas.  
   N  S  A

9. I indent examples and details under main ideas to show their relationship.  
   N  S  A

10. I leave enough space to resolve confusing ideas in the lecture.  
    N  S  A

11. I ask questions to clarify confusing points in the lecture.  
    N  S  A

12. I record the questions my classmates ask the lecturer.  
    N  S  A

N = NEVER  S = SOMETIME S  A = ALWAYS
Lecture (continued)

13. I am aware of instructor signals for important information.  N S A

14. I can tell the difference between lecture and nonrelated anecdote.  N S A

15. I take notes until my instructor dismisses class.  N S A

Post Lecture

1. My notes represent the entire lecture.  N S A

2. I review my notes immediately after class to make sure that they contain all the important points of the lecture and are legible.  N S A

3. I underline important words and phrases in my lecture.  N S A

4. I reduce my notes in the recall to jottings and cues for studying at a later date.  N S A

5. I summarize the concepts and/or principles from each lecture in a paragraph.  N S A

6. I recite from the jottings and cues in the recall column on a weekly basis.  N S A

7. I use my notes to draw up practice questions in preparation for examinations.  N S A

8. I ask classmates for help in understanding confusing points in the lecture.  N S A

9. I use my notes to find ideas that need further explanation.  N S A

10. I am completely satisfied with my notetaking in my courses.  N S A

11. I can understand my notes when I study them later.  N S A

12. I use the reading assignment to clarify ideas from the lecture.  N S A

N = NEVER  S = SOMETIMES  A = ALWAYS
### Master List
**College Reading and Learning Assistance Technical Reports**
**Georgia State University**

<table>
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<th>Technical Report No.</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>84-03</td>
<td>Using a Learning Model to Integrate Study Skills into a Peer-Tutoring Program.</td>
<td>Schmelzer, R. V., Brozo, W. G., &amp; Stahl N. A.</td>
<td>(ERIC Document Reproduction Service No. ED 256-244)</td>
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<tr>
<td>84-08</td>
<td>Faculty Perceptions of Student Behaviors: A Comparison of Two Universities.</td>
<td>Brozo, W. G., &amp; Schmelzer, R. V.</td>
<td>(Not submitted to ERIC—to appear in an upcoming edition of the <strong>Journal of College Student Personnel</strong>)</td>
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**ERIC**

84-10  Stahl, N. A., Henk, W. A., & King, J. R. Are Drivers' Manuals Right for Reluctant Readers? (ERIC Document Reproduction Service No. ED 245-208)


85-02  Smith, B. D., & Elifson, J. M. Do Pictures Make a Difference in College Textbooks? (ERIC Document Reproduction Service No. ED 256-246)


85-04  Brozo, W. G. Teaching Students to Recognize and Manipulate Structures of Cohesion. (ERIC Document Reproduction Service No. ED 256-248)