DOCUMENT RESUME

ED 441 782 SP 039 240

AUTHOR Allen, Ruth M.; Casbergue, Renee M.

TITLE Impact of Teachers' Recall on Their Effectiveness in Mentoring Novice Teachers: The Unexpected Prowess of the Transitional Stage in the Continuum from Novice to Expert.

PUB DATE 2000-04-00

NOTE 8p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 24-28, 2000).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Beginning Teacher Induction; *Beginning Teachers; Elementary Education; Elementary School Teachers; Higher Education; *Mentors; Preservice Teacher Education; *Recall (Psychology); Reflective Teaching; Student Behavior; Teacher Behavior; *Teaching Experience

IDENTIFIERS Reflective Thinking

ABSTRACT

This study examined the evolution of the accuracy/thoroughness of novice through expert teachers' recall of their own and their students' specific classroom behaviors, investigating the relationship of their recall to the frequency and levels of their reflection and using findings to determine the impact of their recall on their effectiveness in mentoring novices. Participants included three groups of elementary teachers: (1) four novices (student teachers just beginning actual teaching); (2) five transition group teachers (teachers with 1-6.5 years experience); and (3) three experts (teachers with 10-30 years experience). Teachers were observed teaching for one class period. In an interview following the observation, teachers recalled their own and their students' specific classroom behaviors. Each recall was compared to observations to determine the accuracy and thoroughness of the recall. Infrequent inaccuracies in recall were noted in novices through teachers with 1-3.5 years experience. The teacher with 6.5 years experience and the experts exhibited accurate recall. A continuum was observed from general recall that lacked thoroughness (novices) through very specific and thorough recall (transition group) to general and less thorough recall (experts). Teachers' elaborations suggested reflection at three levels of reflectivity, with teachers emphasizing different levels and exhibiting different consistencies of reflection. (Contains 32 references.) (SM)

IMPACT OF TEACHERS' RECALL ON THEIR EFFECTIVENESS IN MENTORING NOVICE TEACHERS: THE UNEXPECTED PROWESS OF THE TRANSITIONAL STAGE IN THE CONTINUUM FROM NOVICE TO EXPERT

Ruth M. Allen, Metairie Park Country Day School
Renee M. Casbergue, University of New Orleans

Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA, April 24-28, 2000.

IMPACT OF TEACHERS' RECALL ON THEIR EFFECTIVENESS IN MENTORING NOVICE TEACHERS: THE UNEXPECTED PROWESS OF THE TRANSITIONAL STAGE IN THE CONTINUUM FROM NOVICE TO EXPERT

Ruth M. Allen, Metairie Park Country Day School
Renee M. Casbergue, University of New Orleans

Objective

Accuracy/thoroughness of recall is important because it is a necessary precursor to teachers achieving the capability of effective reflection. This qualitative study examined the evolution of the accuracy/thoroughness of novice through expert teachers' recall of their own and their students' specific classroom behaviors, the relationship of their recall to the frequency and levels of their reflection (Van Manen, 1977), and applied the findings to determining the impact of these teachers' recall on their effectiveness in mentoring novice teachers.

Theoretical Framework

A primary goal of teacher education programs is the development of effective teachers. Reflective teaching is viewed as a paramount vehicle for enhancing the development of effective teachers; therefore, it is the aim or salient theme of a vast and increasing number of teacher education programs (Calderhead, 1989; Loughran, 1995, April; Richardson, 1990; Ross, 1989; Smyth, 1989; Wildman, Niles, Magliaro, & McLaughlin, 1990). Reflective teaching is defined by Zeichner and Liston (1987) as a process of assessing the origins, purposes, and consequences of one's work at all three levels of reflectivity as described by Van Manen (1977). There is a general consensus that reflectivity leads to professional growth (Ferguson, 1989; Frieberg & Waxman, 1990; Van Manen, 1991; Wildman & Niles, 1987; Wildman et al., 1990). For many teachers, self-directed assessment of one's own teaching is the primary method for effecting improved teaching performance and, therefore, growing in expertise (Irvine, 1983; Loughran, 1995).

The reflective process is initiated by questions whose essence is the recall of specifics (Eisner, 1991; Loughran, 1995, April; Noordhoff & Kleinfeld, 1990; Roth, 1989; Smyth, 1989). This implies that accurate/thorough recall is necessary in order to proceed to subsequent questions in the reflective process.

Typically, experienced teachers have grown in cognition in their years of teaching and possess rich schemata (Allen & Casbergue, 1995, 1997; Brown, Bransford, Ferrara, & Campione, 1983; Carter, Sabers, Cushing, Pinnegar, & Berliner, 1987; Carter, Sabers, Stein, & Berliner, 1988; Chi, Feltovich, & Glasser, 1981; Chase & Simon, 1973; Clarridge & Berliner, 1991; de Groot, 1965; Larkin, McDermott, Simon & Simon, 1980; Livingston & Borko, 1989; Peterson & Comeaux, 1987) which allow them to demonstrate significantly better recall ability of meaningful classroom occurrences than novices (Allen & Casbergue, 1997; Carter et al., 1987; Clarridge & Berliner, 1991; Peterson & Comeaux, 1987; Sabers, Cushing, & Berliner, 1991). Typically, novices recall neutral behaviors and do not recall positive behaviors (Allen & Casbergue, 1995, 1997) or blatant unacceptable behaviors (Allen & Casbergue, 1995, 1997; Clarridge & Berliner, 1991). Therefore, novices cannot effectively answer the first question that initiates the process of reflection, e.g. "What happened?" (Eisner, 1991; Loughran, 1995, April) or "What did I do?" (Smyth, 1989). This fact supports the conclusion that novice teachers have limited ability to reflect and analyze (Berliner, 1988, 1989, 1994; Livingston & Borko, 1989; Wildman & Niles, 1987). If novices cannot accurately/thoroughly recall and expert teachers can, then when and how do novices develop this ability to move through the levels of accurate/thorough recall of specific behaviors on their journey toward expertise?

While this body of research explores recall differences between novice and expert teachers, only in one study (Allen & Casbergue, 1997) have researchers included a transition group of teachers and described the cognitive development and continua related to the recall of classroom behaviors as one moves from novice to more experienced to expert teacher. This study is the first to focus on transition groups rather than dichotomous expert/novice classification.

Methods/Data Source

The sample for the current study consisted of three groups of elementary school teachers: four novices, student teachers in their first or second week of actual teaching; five transition group teachers, teachers with 1 to 6.5 years experience; and three experts, teachers with 10 to 30 years experience. Qualitative methods were utilized in this research as described below.

The teachers were observed teaching in a natural setting for one class period by the primary researcher. The class was audiotaped, and detailed notes of the teachers' and students' specific classroom behaviors were recorded. A one hour structured interview followed the observation during which teachers recalled their own and their students' specific classroom behaviors. The interviews were audiotaped. The teachers' recall was subsequently compared to the recorded observations to determine the accuracy (correctness) and thoroughness (completeness) of their recall. Comparisons were made within groups and across groups. In addition teachers' responses to the interviews were analyzed for common themes. While there was not any direct attempt to elicit reflection, in the course of analyzing data, it became clear that the teachers all elaborated beyond straight recall of their own and their students' behaviors during the observed class. It is suggested here that these elaborations offer glimpses into the teachers' reflection about their teaching. Their elaborations were analyzed to determine if the teachers reflected and, if so, how often and at which of the three levels of reflectivity described by Van Manen (1977). Subsequently, the accuracy/thoroughness of the teachers' recall was compared to the frequency and levels of their spontaneous reflection in the course of the recall task. The findings were applied to determine the impact of these teachers' recall on their effectiveness in mentoring novice teachers.

Results

Infrequent inaccuracies in recall were noted with novices through teachers with 1 to 3.5 years experience. The teacher with 6.5 years experience and the experts exhibited accurate recall. During the analysis of teachers' thoroughness of recall, the following themes emerged. (1) As teachers gained experience, their reported focus during teaching shifted from their own behaviors (novices) to their students' behaviors (transition group) to a combination of their own and their students behaviors(experts). (2) Teachers' reported focus did not consistently concur with the focus apparent in their oral recall until teachers had a minimum of 6.5 years experience. (3) Novices recalled neutral behaviors, and the more experienced teachers recalled neutral, negative and positive behaviors. (4) The findings also demonstrated that teachers progressed in thoroughness of recall along different paths and at different rates.

A continuum was observed from general recall that lacked thoroughness (novices) through very specific and thorough recall (transition group) to general and apparently less thorough recall (experts). It was concluded that the latter general recall indicated pattern formation, i.e. subsuming of specific behaviors, in the schemata of the four most experienced teachers. Another continuum was observed from hesitant, uncertain, inconsistent, strained recall to fluid, certain, consistent, and generally effortless recall.

With the exception of an outlier in the novice group, each of the teachers' elaborations suggested reflection at the three levels of reflectivity described by Van Manen (1977), but they placed emphasis on different levels and exhibited different consistencies of reflection. Based on their elaborations all teachers appeared to reflect about equally at level I which is primarily concerned with efficient and effective application of pedagogical knowledge. Novices and the teacher with one year of experience who was not trained in reflection reflected essentially equally at all three levels. With increasing experience, the teachers placed more emphasis on level II, the assessment of educational consequences of a teaching action and/or the clarifying of assumptions and predispositions underlying competing educational goals, and level III which is concerned with whether human needs and purposes are being met. After completing one year of teaching,teachers who appeared to be reflective often incorporated level I into levels II and III, i.e. their own effectiveness was assessed according to the responses of their students and whether or not students' needs were met.

When compared to the novices, three of the transition group teachers reflected twice as frequently at levels II and III as the novices. The expert teachers reflected four times more

frequently than the novices at level II and three times more at level III. The experts reflected twice as often at levels II and III than the transition group.

When the frequency of reflection, as evidenced during elaborations, and the corresponding levels of reflectivity were compared to the thoroughness of recall of an individual or members composing a group or one group to another, the results indicated that reflection on one's teaching experiences, i.e. one's own behaviors and the behaviors of one's students, is necessary for the development of thoroughness of recall, i.e. professional growth. The findings indicate that when years of experience are equal, the more reflective teacher(s) will exhibit the more thorough recall. When the consistency and frequency of reflection are relatively equal, the more experienced teacher(s) will demonstrate the more thorough recall. Of the experienced teachers, the transition group of teachers overtly recalled in a very specific/thorough manner while the experts typically overtly recalled generally and seemingly less thoroughly.

Educational Significance

Because reflection was not explicitly requested as teachers were asked to recall their own and their students behaviors, results related to reflection must be carefully considered. To the extent that teachers' elaborations beyond simple recall might suggest the manner in which they reflect about their teaching, the following conclusions can be drawn.

Resulting knowledge of the impact of the relationship between accuracy/thoroughness of teachers' specific recall of their own and their students' behaviors and the frequency and levels of teachers' reflections has strong implications for the design and evaluation of programs for beginning teachers. Teacher education programs that stress reflectivity need access to research results that demonstrate the shifts and changes that occur in recall ability of novices as they move toward expertise and that pinpoint when teachers can be expected to develop the accurate/thorough recall which allows them to effectively reflect. Prior to this time, teachers may be reflecting on inaccurate/incomplete recall; and, therefore, their conclusions would not produce enlightenment of true problem areas or awareness of strengths. Data from this study indicate teacher education programs that stress reflectivity should incorporate curriculum and instruction which most effectively promote and enhance novices' accurate/thorough recall ability and/or necessitate teacher educators' reconsideration of their goals so as not to expect too much from novices too soon.

The data indicate that practicing reflection is necessary for novices to build sufficient pedagogical schemata which provides the capability to effectively self-reflect and, thereby, progress on the journey to expertise. For the novice teachers, the data also indicate that guided reflection is a necessity if they are to effectively reflect on classroom behaviors. The results of this study may supply the impetus and act as a guide for teacher educators to devise and utilize a different set of criteria for selection of cooperating teachers. Typically teacher education programs select elementary school teachers with many years of experience, the experts, to be cooperating teachers; and, if applicable, to guide the novice teachers in reflection. Teachers in the transition group typically recall classroom behaviors in a very specific and thorough manner while experts usually recall generally and seemingly less thoroughly. Since the essence of the first question that initiates the process of reflection deals with specific accurate/thorough recall (Eisner, 1991; Loughran, 1995, April; and Smyth, 1989), this study indicates the teachers in the transition group with over 3.5 years of experience may be a better choice than experts to mentor novice teachers and guide their reflection on practice.

The results of this study may encourage the establishing of workshops for cooperating teachers which provide training and techniques for guiding reflection and increase their awareness of teachers' cognitive development, the needs of preservice teachers, and what can be realistically expected of a novice teacher so they, as well as the teacher educators, do not expect too much too soon.

References

Allen, R.M. & Casbergue, R.M. (1995, April). Evolution of Novice Through Expert Teachers' Recall. Presented at the meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 383 681)

Allen, R.M. & Casbergue, R. M. (1997). Evolution of Novice Through Expert Teachers' Recall: Implications for Effective Reflection on Practice. Teaching and Teacher Education: An International Journal of Research and Studies, 13(7), 741-755.

Berliner, D.C. (1988, February). The development of expertise in pedagogy. Charles W. Hunt Memorial Lecture. Paper presented at the meeting of the American Association of Colleges for Teacher Education, New Orleans, LA. (ERIC Document Reproduction Service No. ED 217 008)

Berliner, D.C. (1989). Implications of studies of expertise in pedagogy for teacher education and evaluation. In New Directions for Teacher Assessment. Proceedings of the 1988 ETS Invitational Conference. Princeton, NJ: Educational Testing Service.

Berliner, D.C. (1994). Expertise: The wonder of Exemplary Performances. In J.N. Mangieri & C. Collins (Eds.), Creating Powerful Thinking in Teachers and Students: Diverse Perspectives. Fort Worth: Harcourt Brace College.

Berliner, D.C. (1994). Expertise: The wonder of Exemplary Performances. In J.N. Mangieri & C. Collins (Eds.), Creating Powerful Thinking in Teachers and Students: Diverse Perspectives. Fort Worth: Harcourt Brace College.

Borko, H. & Livingston, C. (1989). Cognition and improvisation: differences in mathematics instruction by expert and novice teachers. American Educational Research Journal, 26, 473-498.

Brown, A.L., Bransford, J.D., Ferrara, R.A., and Campione, J.C. (1983). Learning, remembering, and understanding. In P.H. Mussen (Ed.), Handbook of Child Psychology (pp. 77-166). New York: Wiley.

Carter, K., Cushing, K. Sabers, D., Stein, P. & Berliner, D. (1988). Expert-novice differences in perceiving and processing visual classroom stimuli. Journal of Teacher Education, 39(3), 25-31.

Carter, K., Sabers, D., Cushing, Pinnegar, S., and Berliner, D. (1987). Processing and using information about students: a study of expert, novice, and postulant teachers. Teacher and Teacher Education, 3(2), 147-157.

Calderhead, James (1989). Reflective teaching and teacher. Teaching & Teacher Education, 5(1), 43-51.

Chase, W.G. & Simon, H.A. (1973). Perception in chess. Cognitive Psychology, 4, 55-81.

Chi, M.T.H., Feltovich, P.J., Glaser, R. (1981). Categorization and representation of physics problems by experts and novices. Cognitive Science, 5, 121-152.

Clarridge, P.B. & Berliner, D.C. (1991). Perceptions of student behavior as a function of expertise. Journal of Classroom Interaction, 26(1), 1-8.

de Groot, A.D. (1965). Thought and Choice in Chess. The Hague: Mouton.

Dreyfus, H.L. & Dreyfus, S.E. (1986). Mind Over Machine. New York: Free Press.

Eisner, E. W. (1991). The Enlightened Eye: Qualitative Inquiry and the Enhancement of Educational Practice. New York: Macmillan Publishing Co. (264 pages)

Ferguson, Patrick (1989). A reflective approach to the methods practicum. Journal of Teacher Education, 40(2), 36-41.

Frieberg, H.J. & Waxman, H.C. (1990). Reflection and the acquisition of technical teaching skills. In R.T. Clift, W.R. Houston & M.C. Pugach (Eds.), Encouraging Reflective Practice in Education (pp. 119-137). New York: Teachers College, Columbia University.

Irvine, Jacqueline Jordan (1983). The accuracy of pre-service teachers' assessments of their classroom behaviors. Journal of Research and Development in Education, 17(1), 25-31.

Larkin, J., McDermott, J. Simon, D.P. & Simon, & H.A. (1980, June). Expert and novice performance in solving physics problems. Science, 208(20), 1335-1342.

Livingston, C., & Borko, H. (1989). Expert-novice differences in teaching: a cognitive analysis and implications for teacher education. Journal of Teacher Education, 40(4), 36-42.

Loughran, J. (1995, April). Windows Into the Thinking of an Experienced Teacher: Exploring the Influence of Spontaneous "Talk Aloud" in Practice. Paper presented at the Annual Convention of the American Association of Research in Education, San Francisco. (ERIC Document Reproduction Service No. ED 383 681)

Noordhoff, K. & Kleinfeld, J. (1990). Shaping the rhetoric of reflection for multicultural settings. In Encouraging Reflective Practice in Education. R.T. Clift, W.R. Houston & M.C. Pugach (Eds.). New York: Teachers College Press. (pp. 163-185).

Peterson, P. L. & Comeaux, M. A. (1987). Teachers' schemata for classroom events: the mental scaffolding of teachers' thinking during classroom instruction. Teaching & Teacher Education, 3(4), 319-331.

Ross, Dorene D. (1989). First steps in developing a reflective approach. Journal of Teacher Education, 40(2), 22-30.

Roth, Robert A. (1989, March-April). Preparing the reflective practitioner: transforming the apprentice through the dialectic. Journal of Teacher Education, 40(2), 36-41.

Sabers, D., Cushing, K.S., & Berliner, D.C. (1991). Differences among teachers in a task characterized by simultaneity, multidimensionality, and immediacy. American Educational Research Journal, 28,(1), 63-88.

Smyth, John (1989, March-April). Developing and sustaining critical reflection in teacher education. Journal of Teacher Education, 40,(2), 2-9.

Van Manen, Max (1977). Linking ways of knowing with ways of being practical. Curriculum Inquiry, 6, 205-228.

Wildman, T.M. & Niles, J.A. (1987). Essentials of Professional Growth. Educational Leadership, 44(5), 4-10.

Wildman, T.M., Niles, J.S., Magliaro, S.G., McLaughlin, R.A. (1990). Promoting reflective practice among beginning and experienced teachers. In R.T. Clift, W.R. Houston & M.C. Pugach (Eds.), Encouraging Reflective Practice in Education (pp. 139-162). New York: Teachers College Press.

Zeichner, Kenneth M. & Liston, Daniel P. (1987, February). Teaching student teachers to reflect. Harvard Educational Review, 57(1), 32-48.

AERA

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: IMPACT OF TEACHERS' RECALL ON THEIR EFFECTIVENESS IN MENTORING NOVICE TEACHERS: THE UNEXPECTED PROWESS OF THE TRANSITIONAL STAGE IN THE CONTINUUM FROM NOVICE TO EXPERT

Author(s): RUTH M. ALLEN, Ph.D. & RENÉE M. CASBERGUE

Corporate Source: METAIRIE PARK COUNTRY DAY SCHOOL and UNIVERSITY OF NEW ORLEANS

Publication Date:

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☑

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Ruth M. Allen

Printed Name/Position/Title: RUTH M. ALLEN, Ph.D.

Organization/Address: METAIRIE PARK COUNTRY DAY SCHOOL
300 PARK ROAD
METAIRIE, LA 70005

Telephone: 504-720-3082

FAX:

E-Mail Address: ruthallen@eatel-link.net

Date: APRIL 20, 2000

(over)

Clearinghouse on Assessment and Evaluation

University of Maryland
1129 Shriver Laboratory
College Park, MD 20742-5701

Tel: (800) 464-3742
(301) 405-7449
FAX: (301) 405-8134
ericae@ericae.net
http://ericae.net

March 2000

Dear AERA Presenter,

Congratulations on being a presenter at AERA. The ERIC Clearinghouse on Assessment and Evaluation would like you to contribute to ERIC by providing us with a written copy of your presentation. Submitting your paper to ERIC ensures a wider audience by making it available to members of the education community who could not attend your session or this year's conference.

Abstracts of papers accepted by ERIC appear in *Resources in Education (RIE)* and are announced to over 5,000 organizations. The inclusion of your work makes it readily available to other researchers, provides a permanent archive, and enhances the quality of *RIE*. Abstracts of your contribution will be accessible through the printed, electronic, and internet versions of *RIE*. The paper will be available **full-text, on demand through the ERIC Document Reproduction Service** and through the microfiche collections housed at libraries around the world.

We are gathering all the papers from the AERA Conference. We will route your paper to the appropriate clearinghouse and you will be notified if your paper meets ERIC's criteria. Documents are reviewed for contribution to education, timeliness, relevance, methodology, effectiveness of presentation, and reproduction quality. You can track our processing of your paper at **http://ericae.net.**

To disseminate your work through ERIC, you need to sign the reproduction release form on the back of this letter and include it with **two** copies of your paper. You can drop of the copies of your paper and reproduction release form at the ERIC booth (223) or mail to our attention at the address below. **If you have not submitted your 1999 Conference paper please send today or drop it off at the booth with a Reproduction Release Form.** Please feel free to copy the form for future or additional submissions.

Mail to: AERA 2000/ERIC Acquisitions
The University of Maryland
1129 Shriver Lab
College Park, MD 20742

Sincerely,

Lawrence M. Rudner

Lawrence M. Rudner, Ph.D.
Director, ERIC/AE

ERIC/AE is a project of the Department of Measurement, Statistics and Evaluation at the College of Education, University of Maryland.