

Ethnographic Study of the Applied Scholastic Training for School Teachers in Ekiti State, South West of Nigeria

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Abstract: The research was conducted in the western part of Nigeria. The schools were selected from the local governments areas and some of them tagged the experimental group, those schools where the teachers were selected for training. The control group, were made up of those schools which were not exposed to the training. 377 teachers were exposed to the training intervention which was to teach them how to break the barriers to learning, how to encourage students to grasp subject matter in any subject. The results of students in the experimental group were later compared to those whose teachers were not exposed to the training and significant result was noted. Also considerably impact was felt among the students whose teachers were exposed to the training. The result showed a remarkable improved performance in the grades of the students whose teachers were exposed to the training intervention than those whose teachers were not exposed to the training intervention.

Key words: training; applied scholastics; teachers; intervention; education; pedagogy; teaching

JEL codes: A2, I12

1. Introduction

In the last twenty years the Nigerian educational system has depreciated massively, such that students are no longer engaged as they find classes boring and inattentive, leading to a high rate of dropouts and increased illiteracy and lack of basic life skills.

The ways teachers engage students in discourse during teaching-learning activities have profound moral implications for children's learning and development. Specifically, how teachers' control classroom discourse patterns during teaching-learning activities influences the types of knowledge children create and acquire. Placed within a socio-cultural perspective, classroom discourse has the potential to influence children's appropriation of the meditational mean. The decisions and choices about which questions to ask, how to ask them and in which context to ask them are based upon teachers' beliefs and assumptions about: how students learn, the students' capabilities as learners, what is worthwhile for students' to learn, and ultimately, the teachers' views about the value of knowledge and its pursuit (Anning, 1988; Connelly & Clandinin, 1988; Kagan, 1990)

1.1 Key Challenges

There is a massive erosion of quality teaching in the classrooms and over the past decades, the Nigerian educational system which used to be world acclaimed for turning out great students have suffered terribly.

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Graduates of schools both at the secondary and tertiary education come out with little of noting of the basic knowledge required at the level especially at the public schools and state schools. Not only that the learning environment has suffered terribly, most of the school leavers as a result of poor education cannot find jobs leading to mass unemployment and illiteracy. The level of the teaching has also declined considerably, leading to a nation heading towards mass illiteracy. The Applied Scholastics (APS) intervention technology has been proven to be a methodology that helps students improve the ability and capacity to comprehend, and assist the student to apply the knowledge that has been learnt.

The teachers on their path should benefit from the technology by;

- Recognizing and correcting the fundamental barriers to learning
- Improving the learning environment
- Increased teacher ability to keep students engaged.
- Employment of appropriate teaching methods and modern teaching aids.

The impact of the training intervention for the Teachers in Ekiti State would result in the teachers acquiring the ability to recognize the fundamental barriers to learning for their students. The new approach to learning should result in the students becoming more attentive to any subject they are taught. The students should have a better retention of what they are taught and the ability to apply classroom teaching to other life situations. Also, the grades of the students whose teachers have gone through the training should be much better than those whose teachers have not been exposed to the intervention. Also the general morale of the students should be much better than those whose teachers have not been exposed to the training.

1.2 Objective of the Evaluation

The main objective of the training was to evaluate the impact of the training Intervention, Study Technology to the performance of the students. To address the current decline in the educational system in the country particularly Ekiti State, the Ekiti State Ministry of Education and Technology initiated a pilot training program on Study Technology. The main goal was to see if the students whose teachers were exposed to this training would have better test scores and perform better in their examinations than those students whose teachers were not exposed to the training.

The object was also to see that when teachers apply a different method of teaching in classroom discourse that the students performance would be improved.

1.3 Literature Review on Implications of the Study

Teacher-child discourse is a central aspect of classroom life (Wells, 1992). A number of studies have examined the ways teachers talk with children in classrooms during teaching-learning experiences (e.g., Cazden, 1988; Christie, 1991; Cobb, Wood, & Yackel, 1993; Dillon, 1988, 1994; Edwards & Mercer, 1987; Edwards & Westgate, 1994; Lemke, 1990, Mehan, 1979; Sinclair & Couthard, 1975; Tizard & Hughes, 1984, Wells, 1993; Wood, 1992). These studies have focused primarily on how teachers structure discourse to achieve instructional objectives, and on the relationship of teachers and students in classrooms. Teachers control the structure and content of discourse through the types of questions they ask and through their responses to children. Edwards and Mercer noted that the structure of teacher-child discourse provides teachers with a means “for controlling topics of discussion, directing pupils’ thought and action, and establishing the extent of shared attention, joint activity and common knowledge” (1987, p. 46). Based upon fine-grained analyses of transcripts, Edwards and Mercer, found that by controlling classroom discourse “the teacher maintained a tight definition of what became joint versions of events, and joint understandings of curriculum content” (1987, p. 129). These authors remark that even though a

classroom may appear to be child-centered, one in which teachers help children develop their own knowledge and understandings of curriculum content, a closer look may reveal that something quite different is occurring; decisions, once made, influence the teacher-child relationship and the nature of the teaching-learning activities undertaken within the relationship.

Maher and Tetreault (1994) outline four dimensions which provide a way of examining teacher-child interactions during learning activities. The dimensions provide a means of analyzing how teachers engage children in teaching learning activities, what children learn from the activities, the nature of children's participation in the activities, and how teachers and children relate to one another during the activities. Further, they provide a means of framing teaching learning activities in a moral context. The dimensions and questions that derive from them are as follows: (1) **Mastery**: What knowledge and mediational means are children mastering as a result of their participation in classroom activities? What do they mean for future learning and development? (2) **Voice**: Are children's voices present in the discourse? Do we hear children's interests, questions, concerns expressed and acknowledged in the discourse? Are children able to keep their own voice while appropriating the voice of the school?; (3) **Authority**: Who is seen as the authority on knowledge and ways of learning in the classroom? What authority is given to children for their own learning? (4) **Positionality**: What is the teacher's position relative to children as learners and what is to be learned? Does the teacher strive to enlist children as co-learners and as co-teachers? (see also Young, 1992, for a similar discussion on positionality).

Mastery: Wertsch (1991; Wertsch & Smolka, 1993; Wertsch & Toma, 1995) clearly makes the case that the form of mediational means children appropriate from participation in teaching-learning activities is directly related to the type of classroom discourse selected and used by the teacher. We can now ask: Is it moral to engage children in the mastery of a collection of facts and content rather than in mastering forms and strategies of inquiry?

Voice: Bakhtin (1981, 1986) has outlined how the different forms of discourse, "reciting by heart" or "retelling in one's own words", reflect a univocal or dialogical approach to teaching and learning. In the former, children respond using the teacher's voice as it has been transmitted to them. In the latter, children fashion their responses in unique ways which reflect their own ways of learning and knowing. In this process children continually develop their own voices as learners and knowers. Also germane to this dimension is Lotman's notion of the first and second functions of texts and of how teachers use them, either to convey a message or to generate new knowledge. For this dimension, the following questions arise: Is it moral to limit the contribution of children's voices in classroom discourse? Or to allow only the voices of only some children to be heard? Is it moral to prohibit children from bringing to the classroom their own ways of knowing and communicating which they express through their unique voices?

Successful teachers tend to be those who are able to use a range of teaching strategies and who use a range of interaction styles, rather than a single, rigid approach (Hamachek, 1969). This finding is consistent with other research on effective teaching, which suggests that effective teachers adjust their teaching to fit the needs of different situations and the demands of different instructional goals, topics, and methods (Doyle, 1985).

In addition to the ability to create and adapt instructional strategies, strong research support has linked student learning to variables such as;

- teacher clarity,
- enthusiasm,
- task-oriented behavior,

- variability of lesson approaches,
- and student opportunity to learn criterion material.

Teachers' abilities to structure material, ask higher order questions, use student ideas, and probe student comments have also been found to be important variables in what students learn (Rosenshine & Furst, 1973; Darling-Hammond, Wise, & Pease, 1983; Good & Brophy, 1986). No single instructional strategy has been found to be unvaryingly successful; instead, teachers who are able to use a broad repertoire of approaches skillfully (e.g., direct and indirect instruction, experience-based and skill-based approaches, lecture and small group work) are typically most successful. The use of different strategies occurs in the context of "active teaching" that is purposeful and diagnostic rather than random or laissez faire and that responds to students' needs as well as curriculum goals (Good, 1983).

Teacher education appears to influence the use of these practices. Teachers who have had formal preparation have been found to be better able to use teaching strategies that respond to students' needs and learning styles and that encourage higher order learning (Perkes, 1967-1968; Hansen, 1988; Skipper & Quantz, 1987). Doyle (1986) hypothesizes that since the novel tasks required for problem-solving are more difficult to manage than the routine tasks associated with note learning, lack of knowledge about how to manage an active, inquiry-oriented classroom can lead teachers to turn to passive tactics that "dumb down" the curriculum (see also Carter & Doyle, 1987), busying students with workbooks rather than complex tasks that require more skill to orchestrate (Cooper & Sherk, 1989).

It seems logical that teachers' abilities to handle the complex tasks of teaching for higher-level learning are likely to be associated, to varying extents, with each of the variables reviewed above: verbal ability, adaptability and creativity, subject matter knowledge, understanding of teaching and learning, specific teaching skills, and experience in the classroom, as well as interactions among these variables. In addition, considerations of fit between the teaching assignment and the teacher's knowledge and experience are likely to influence teachers' effectiveness (Little, 1999), as are conditions that support teachers' individual teaching and the additive effect of teaching cross classrooms, such as class sizes and pupil loads, planning time, opportunities to plan and problem solve with colleagues, and curricular supports including activities that make sense to the learners.

Despite conventional wisdom that school inputs make little difference in student learning, a growing body of research suggests that schools can make a difference, and a substantial portion of that difference is attributable to teachers. Recent studies of teacher effects at the classroom level using the Tennessee Value-Added Assessment System and a similar data base in Dallas, Texas, have found that differential teacher effectiveness is a strong determinant of differences in student learning, far outweighing the effects of differences in class size and heterogeneity (Sanders & Rivers, 1996; Wright, Horn, & Sanders, 1997; Jordan, Mendro, & Weerasinghe, 1997). Students who are assigned to several ineffective teachers in a row have significantly lower achievement and gains in achievement than those who are assigned to several highly effective teachers in sequence (Sanders & Rivers, 1996).

Teacher effects appear to be additive and cumulative, and generally not compensatory. These studies also find troubling indicators for educational equity, noting evidence of strong bias in assignment of students to teachers of different effectiveness levels (Jordan, Mendro, & Weerasinghe, 1997).

First, while student demographic characteristics are strongly related to student outcomes at the state level, they are less influential in predicting achievement levels than variables assessing the quality of the teaching force. Second, when aggregated at the state level, teacher quality variables appear to be more strongly related to student

achievement than class sizes, overall spending levels, teacher salaries (at least when unadjusted for cost of living differentials), or such factors as the statewide proportion of staff who are teachers to be assigned to the most ineffective teachers and half as likely to be assigned to the most effective teachers (Sanders & Rivers, 1996).

2. The Study Methodology

The study commenced with a selection of a school from the 16 local governments of the State. All the teachers, Principals and Vice principals were involved. They were divided into two batches. Each batch attended a 10 day workshop concluding with a certification ceremony. The participants in the two batches formed the Experimental Group;

This was tagged “The experimental group”. The main criteria for choosing these schools were as follows;

- Low to mid performing schools.
- The teachers exposed to the training would not be moved from their current schools within a one year period
- Teachers would not be retiring soon.

The schools involved in the training would be observed prior to the commencement of the training program. The observation was a bid to be able to have a basis for comparison after the intervention.

2.1 The Control Group

The study also tagged some schools “The control group” that is those whose teachers would not be exposed to the intervention. The training would be concluded with the A.E.O s’ the Area Education Officers conducting the Post assessment by;

- observing the teachers in the classroom after the training for monitoring and assessment
- Filling out observation questionnaires
- Comparing students test prior to the intervention to the test scores after the training
- Comparing the experimental group scores with the control group scores after a term.

2.2 The Intervention

The teachers were exposed to the training in the following Local Governments of Ekiti State;

- Ado Zone; Mary Immaculate Grammar School, Ado Ekiti
- Ikere Zone: Amoye Grammar School, IkereEkiti
- Ido Zone; EkitiParapo college, IdoEkiti
- Ikole Zone; St marys Girls Grammar School, IkoleEkiti
- Ijero Zone; Doherty memorial Grammar School, IjeroEkiti
- Omuo Zone; Omuo Comprehensive High School, OmuoEkiti

Three hundred and fifty six teachers from 16 Junior Secondary Schools, in each local government area and officers of the Ministry of Education participated in the program. The teachers in each school were grouped into two batches. The first stage of the study was a pre-assessment study of randomly selected schools at each of the local five zones. They include: Methodist Girls Junior School, Ifaki, Government Junior College, Ikere, Mary Immaculate Grammar School, Ado Ekiti, Comprehensive Junior SchoolIjesaIsu, Ijero Junior High School, Ijero and EkaMefa Junior Comprehensive, Ilasa using the instrument tagged “Ekiti State Pre assessment of Schools”.

After the pre assessment, the next stage was the intervention, the training workshop which was batched into two. Each participant also received a dictionary, learning how to learn book, training manuals, and writing materials. The activities during the workshop included teaching by Applied Scholastics trained personnel, writing

lesson plan, written examinations, teaching skills and practicum.

Learning How to Learn: designed to train teachers how to analyze and remedy the barriers to learning; Progressive Teaching Tools: Teachers were exposed to skills that will increase the student's ability to understand and apply what they are taught. Communication Skills: The teacher's ability to overcome communication challenges is increased. Tools For educators; is an in-depth understanding of strategies that assist students to learn and apply what is learnt.

2.3 Method of Data Collection

The initial instrument was prepared from an unbiased study based on observation of the teachers. In the month of April, the first stage of the intervention was the pre-assessment of randomly selected schools. A randomly selected number of students were selected from different levels in the Junior Secondary Schools and the questionnaire was administered to them.

2.4 Researchers

The researchers for the post assessment comprised of the Area Education Officers in the Ministry of Education. The researchers visited the selected schools and observed the teachers in selected classrooms as well as administered the questionnaires to the teachers and the students.

From the observation, the students were asked to assess the teachers;

- On clarity of instructions. The students were asked to evaluate the teachers in terms of their ability to give clear instructions in the classroom.

- Content of classroom instructions, how well the students are able to understand the teachers and how the subject matter addressed in the classroom was delivered.

- how teachers engage the students in the classroom discourse,

- Communication and effectiveness in the classroom, the teachers' effectiveness in communication to the students and how well the students are able to grasp the subject matter contents.

- Motivation of students' interest in subject matter is the teacher's new style of teaching motivating or do the students still find the classroom boring.

- Teacher's openness to students thinking "out of the box" and use of practical examples. Are teachers able to allow student to explore their mind or are they programmed to just the confines of the teachers.

The researchers also independently observed the teachers on seven main areas which were,

- Teacher's mode of relating with students. Teachers were supposed to be able to identify the barriers to the students learning and assist them in overcoming the barriers.

- Teachers ability to give positive feedback to students; Are teachers responsive to the mood of students and do they show care and support.

- How supportive are teachers in the classroom to encourage learning, Are teachers more encouraging to the students thereby supporting them in the learning discourse

- The teacher's communication strategies, The way teachers engage students in the classroom has been found to have an impact in the performance of the students, hence the importance of the communication strategy.

- Teacher's method of organization of content and presentations in the classroom, the way teachers organize curricula is important in the learning discourse. Do teachers organize the curriculum in a manner that is progressive and not too steep a gradient?

- The learning behavior and pattern of the students

- The teacher's use of practical examples and media to get the students attention.

3. Results of Field Survey

During this pre assessment, the student's answers were a bit skewed and biased based on the fact that they may be scared to answer unfavorably about the teachers. However the researcher's observation proved that the same old method of teaching decades ago is still being used by the teachers.

- On clarity of instructions, the researchers observed that the teachers tried to explain to the students but there was clear evidence of "mass" that is the students understanding was, limited by what they could not see. These were some of the topics dealt with in the training.
- Content of classroom instructions, the classroom instructions were still the conventional type used as long as ever. There was no evidence of creativity in the delivery of the instructions.
- How teachers engage the students in the classroom discourse, it was observed that teachers read out the text in an abstract form and students were to regurgitate the contents back to them. There was no evidence of the teachers allowing the students to explore the meaning or the epistemological meaning of words.
- Communication and effectiveness in the classroom, it was not observed that there was any effectiveness in the communication style of the teachers. The French class and math class observed in some of the schools were the basic style of old time recite and say after me approach.
- Motivation of students' interest in subject matter. There was no motivation of students to the topics of discussion and most of them seemed lost and at most just interested enough in repeating word for word after the teacher.
- Teachers openness to students thinking "out of the box" and use of practical examples. Nothing to show that the teachers were interested in the student's ideas or thoughts on the subject other than what the teachers were saying.

The teacher's style of reading and having the students read behind without any understanding of what the teacher was talking about was clearly evident in all the schools and classes observed. Most of the students showed little or no interest in the classroom discussions and the teachers added little or nothing to improve the situation. The post assessment observation was done by the ICLED's team of researchers and the Ekiti Ministry of Education AEOs after the teachers had been exposed to the intervention by Applied Scholastics. The intention was to see if there is a marked difference in the teachers' style of teaching and classroom discourse that might reflect in the students' performance after the exposure to the training.

3.1 The Post Assessment

The post assessment commenced three weeks after the training. The researchers and the Ministry of Education, AEOs were briefed at a meeting to sensitize them to the evaluation program. They were given post assessment questionnaires and asked to administer them to randomly selected teachers and students in their respective areas. They were also to collate the second term examinations results of the schools that were exposed to the training with those of schools in their locality that were not exposed to the training. In other words they were to compare the results of the experimental group to those of the control group.

The researchers administered the questionnaires and observed that;

- (a) The teacher's enthusiasm had changed towards teaching in their classrooms.
- (b) The teachers were more encouraging to their students by being able to identify the barriers to learning that posed threats to the students.
- (c) The "mass" that is the barriers to the students comprehension were mostly absent as teachers were now

more creative in their explanations to give the students clarity in explanations.

(d) The behavior of the students changed as they were able to see a marked difference in their teachers' enthusiasm in their training.

(e) The teachers communication strategies was more effective and efficient

(f) Most of the teachers were more supportive of their students and showed more care towards their understanding of subject matter.

(g) That the test scores of those students whose teachers applied what was learned improved compared to those whose teachers were not as enthusiastic.

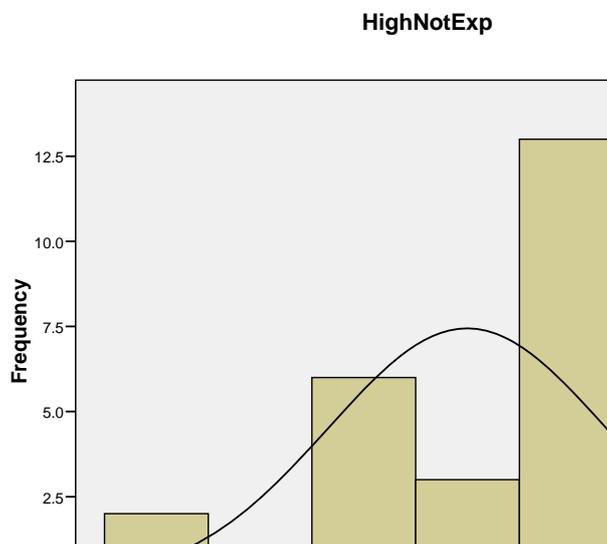
3.2 Comparison of the Graphical Representation

However in comparing the third term results, clear evidence of improvement can be observed between the unexposed group and the exposed group's examination performance.

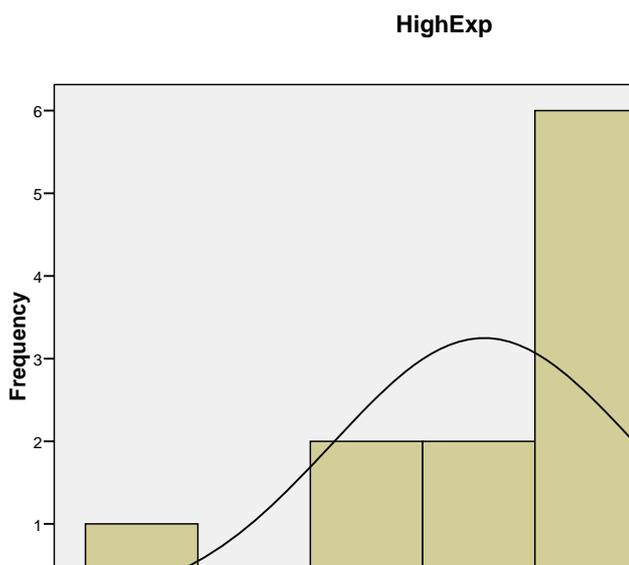
3.3 Specifics on Data Analysis Results

(1) Range of scores for the "unexposed" is highest at 95 and lowest at 36 marks. This results in an average of 66 marks and differential of 59 marks. Mean score for the unexposed is high at 71.56% and lowest at 31.89%. The average score is 51.73%. Mean score for the students of "unexposed" teachers is generally the same. Math is 86.5 ad English is 86.6.

(2) Range of score in the "exposed" category is between 90, being the highest and 40 lowest resulting in a differential of 50 marks. This averages out at 65 marks. This shows that the scores for the pupils of the exposed teachers are higher than for the unexposed teachers; A mark may appear insignificant but then can be helpful in the determination of failure or success, while the deferential proves clearly that the results of the exposed teachers are better by 9 marks. A more significant differential impact is expected as the exposure is felt after a year and more.



(3) Mean scores for students under exposed teachers is between 95.25 as the highest and 43.18 as lowest. This averages out at 69.21. This is undoubtedly higher than the unexposed students at 51.73. English Language score is 92.6 while Mathematics is 91.4. The exposure might be more impactful on the performance of English Language than Mathematics.



(4) Going by the mean scores of the students in both cases and the range of scores in both cases of exposed and unexposed, it can be safely concluded that the exposed teachers produced higher scoring students than the “unexposed” ones.

(5) What has been established from the data analyzed is the improvement in the performance of the students exposed. It is expected that better and more noticeable improvement in performance will be realized in the course of time as the students tend to be better as they progress over time.

3.4 Teachers Evaluation

A total of 67 questionnaires were analyzed. One set consists of 13 questionnaires of 28 questions. The other contains 20 questions. This group responded to 54 questionnaires. The questionnaires were analyzed as follows.

(1) Ratings were done on the basis of 0, 10, 20 and 30, for absent, slightly evident and very evident in the four groups of structure responses of the students.

(2) Maximum score for the questionnaires is 600; the next group is 400, 200 and 0 in that order. The average of the score was used to arrive at the score as shown below:

- (3) a. 501 and above is Excellent
 b. 301 and 500 is regarded as very good
 c. 0 and 300 is regarded as poor.

- (4) Results are as follows
 a 501 and above is 29.85%, i.e., 20/67
 b 301 and 501 very good 62.69%, i.e., 42/67
 c 0 and 300 as poor 7.46%, i.e., 5/67.

(5) The modal performance is the group of 301 to 500 which is B rating and is considered very good. It is therefore safe to conclude that the students’ evaluation of the teachers and the researchers’ observation showed a remarkable improvement in the exposed teachers’ methodology of teaching.

4. Conclusion

Based on the result of the pre-assessment and post assessment of the training program, it can well be deduced

that the Applied Scholastic training intervention program influenced the teachers teaching methodology. The experimental group, that is; those teachers exposed to the training had a better grasp of their role as educator and teacher and went back with a better understanding of this role. This is reflected in the results of the students, tagged the “exposed”. The disparity in the result showed close to 40% disparity in the grades of the students whose teachers were in the experimental group compared to those in the control group. That is those whose teachers were not exposed to the training.

Based on the graphical report and the statistical data it can be deduced that the Applied Scholastic Training intervention had a major impact on the grades of the students. It is therefore recommended that further training of the teachers should continue, exposure of as many teachers to the training as possible would be a great benefit to the students and the State in general. The Students would not only show marked improvement in their grades and examination but also, the level of education would be remarkably improved in Ekiti State.

References:

- Andrew M. and Schwab R. L. (1995). “Has reform in teacher education influenced teacher performance? An outcome assessment of graduates of eleven teacher education programs”, *Action in Teacher Education*, Vol. 17, pp. 43-53.
- Andrews J. W., Blackmon C. R. and Mackey J. A. (1980). “Preservice performance and the national teacher examinations”, *Phi Delta Kappa*, Vol. 61, No.5, pp. 358-359.
- Amour-Thomas E., Clay C., Bruno K. and Allen B. (1989). “An outlier study of elementary and middle schools in New York City: Final report”, New York: New York City Board of Education.
- Ashton P. and Crocker L. (1987, May-June). “Systematic study of planned variations: Ayers, J. B., & Qualls, G. S. (1979, Nov-Dec). Concurrent and predictive validity of the national teacher examinations”, *Journal of Educational Research*, Vol. 73, No. 2, pp. 86-92.
- Barnes S., Salmon J. and Wale W. (1989, March). “Alternative teacher certification in Texas”, in: *The Annual Meeting of the American Educational Research Association*, ERIC Document No. 307316.
- Beegle E. G. (1979). “Critical variables in mathematics education”, Washington, DC: Mathematical Association of American and National Council of Teachers of Mathematics.
- Beegle E. G. and Geeslin W. (1972). “Teacher effectiveness in mathematics instruction”, National Longitudinal Study of Mathematical Abilities Report No. 28.
- Bents M. and Bents R. (1990). “Perceptions of good teaching among novice, advanced beginner and expert teachers”, in: *The Annual Meeting of the American Educational Research Association*, Boston, MA.
- Berliner D. C. and Biddle B. J. (1995). *The Manufactured Crisis: Myth, Fraud, and the Attack on America’s Public Schools*, Reading, MA: Addison-Wesley.
- Berliner D. C. (1976, Spring). “The California beginning teacher study”, *Journal of Teacher Education*, Vol. 27, pp. 24-30.
- Bowles S. and Levin H. M. (1968). “The determinants of scholastic achievement — An appraisal of some recent evidence”, *Journal of Human Resources*, Vol. 3, pp. 3-24.
- Brown C. A., Smith M. S. and Stein M. K. (1995). “Linking teacher support to enhanced classroom instruction”, in: *The Annual Meeting of the American Educational Research Association*, New York, NY.
- Byrne C. J. (1983). “Teacher knowledge and teacher effectiveness: A literature review, theoretical analysis and discussion of research strategy”, in: *The Meeting of the Northwestern Educational Research Association*, Ellenville, NY.
- Research Comments Adams R. D., Hutchinson S. and Murray C. (1980). “A developmental study of teacher concerns across time”, in: *The Annual Meeting of the American Educational Research Association*, Boston, MA.
- Campbell J. R., Donahue P. L., Reese C. M. and Phillips G. W. (1996). “NAEP 1994 reading report card for the nation and the states”, Washington, DC: U.S. Department of Education.