

PSYCHODYNAMIC ANALYSIS OF TEACHER TRAINING PROGRAMME AND ACADEMIC PERFORMANCE OF SCHOOL STUDENTS: EVIDENCE FROM KARACHI

Arshad Saleem, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology.

Muhammad Yousuf Sharjeel, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology.

yousufsharjeel@hotmail.com

Kamal Haider, Federal Urdu University of Arts, Science and Technology Karachi.

ABSTRACT

Teacher training institutes across Pakistan are pivotal to equip the secondary students with core knowledge and professional skill set. It is imperative in this context to measure how teacher training in real affects the performance of secondary school students in specific context of Karachi district in the province of Sindh. This study critically examines the impact of both professionally equipped teachers and untrained teachers on the academic achievement of students. Hence, a critical analysis of relevant literature was perused which highlighted that professional development of teachers is essential in order to provide quality education to students in various programmes of education. The study employed data collection from private schools run in the district of Karachi. A random sample of n= 100 students (male and female) taught by trained and untrained teachers was obtained to measure the impact of teacher training. A research questionnaire comprising 10 items was used that assessed teacher's performance in the context of teacher training. The study found that private secondary school students taught by trained teacher showed significantly better results. The study concludes that there is a substantial difference between the performance of trained and untrained teachers in specific performance areas in private secondary schools in Karachi.

KEYWORDS: *Trained/ untrained teachers, effect, influence, performance, development, academic achievement.*

Introduction It is universally accepted that teacher has a measurable role in educational activities especially in the secondary classrooms. Education is a developmental process that influences human mind and their behavior. Teacher education is very important for a secondary school students's success in life. The aim of teacher education is to provide knowledge that helps the individual to be skilled and prepare them socially, mentally and physically for the world. Brown (1993) discussed the effect of teacher training in the context of micro-teaching in schools. The study mentions that micro teaching is the essence of all learning dimensions in a teacher training and educational institution. Trained teachers are the pivotal part of the educational development of secondary school students. At secondary schools, teachers play a vital role in providing formal education to learner and ensures the implementation of all educational reforms at grassroot level.

The future of the secondary students relies upon the role of teacher. Teachers are considered the spiritual parents of the students for developing their real life skill sets and basic knowledge so the teachers must be a role model for the students and should monitor their academic performance throughout their educational process. Teaching is a profession, but training is an integral part of the preparation for a profession that is essential to build up the education system. It is a well-known fact that teacher education system cannot

perform adequately unless they have proficient trained teachers. Effective teaching must incorporate knowledge and skills that are needed to attain the desired goal.

Alexander (1992) stressed in his research that school education policy makes a huge difference in the performance of students. This ultimately means that education is a foundation of holistic development that provides a platform for the overall learner's development. Researchers and policy makers of educational programmes have also urged and stressed on the importance of education saying that it is a synonym for preparing students and provide training to cultivate their future. Cross (1988) worked on the impact of observation and teacher evaluation. This study aimed to increase the professional efficacy of teachers in schools who need to be trained for several personal and professional reasons. The process of teacher education is a triangular process which consists of three aspects: the educators, the education and the subject of education. Education includes not only academic, but also technical and vocational education to build up their desired careers. Not only do the trained teachers have to be professionally trained as well as academically qualified, they must also undergo pre-service education to train themselves by their profession. Effective secondary classroom learning can only be done through effective teacher education. This process provides surety for the success and for a bright future. Whereas untrained teachers are those who are not professionally trained and are not aware of the teaching mechanism. Moreover, professional training is neither provided appropriately nor it is practised in their respective fields in most parts of the country. Abohamzeh (1988) also compared the performance of graduates of teacher training centers, schools and teachers in Tehran. A study by Cross (1995) elaborates that teacher preparation is essential for nation building process. Teacher education programme are required to build thought processes of young adults in schools and this is possible through teacher training in formal situations.

Studies carried out in most parts of the world indicate that untrained teachers take time to explain things in formal teaching-learning situations. They do not have the ability to motivate and engage students during the class. They face difficulty during the development of lessons. They lack in teaching skills such as initiation, content knowledge, questioning skills and evaluation skills. They usually use teacher-centered approach or direct method to teach secondary students and do not engage secondary students during the class. Alexander (1992) quoted that the achievement of secondary students depends upon the quality teaching and it includes skill-based teaching of the subject matter.

Dean (1991) elaborated that professional development in secondary school is an essential tool for teachers in the twenty-first century. This development augments the necessary skills of teachers and administrative staff. In many countries, it is essential that teachers own a 4-year teacher education bachelor's degree from nationally-recognized institution and thus hold teaching certificate or license that is given by the relevant authorities. The Ministry of Education officials in Pakistan describe a professionally skilled teacher as one who carries out certain characteristics in the teaching field, including the knowledge of subject matter, human growth and development, lesson planning and teaching strategies,

assessment criteria, teaching and learning environment and skillful use of information communication technologies (ICT).

Cochran, Villegas, Abrams, Chavez, Mills, & Stern (2016) also elaborated the necessity of teacher education through ICT. This aspect is integral for developing the skills among the prospective teachers for effective and inspiring characteristics too. Keeping this view in context, we must realize that Pakistan inherited a poor rank in literacy rate of approximately 56.4%. Out of this, literacy rate of males is 69.4% and female literacy rate is 42.7% (level of education is measured through literacy rate). In Pakistan, since its inception, teacher education system has remained neglected to a large extent in the context of technology, equipment, furniture, training programme and teacher induction.

The education system of Pakistan was financially handicapped at the time of inception. The current allocation of budget for education is approximately 2.1% of the GDP which has weakened the education system. Out of this allocation, teacher education programmes receive a neglectable fund for the teacher education across the province. The quota for Urban Sindh is so low that the teacher education does not receive public appreciation. Consequently, it has boosted other education-related problems emphasizing dropout ratio, policy implementation, poor testing and examination system, acute shortage of professionally-equipped teachers and other staff, shortage of learning related resources and infrastructure.

There seems to be a lack of coordination among stakeholders, lack of educational institutions' supervision and more importantly lack of development and implementation of curriculum at national level. The education system of Pakistan comprises 260,903 institutions and is facilitating 41,018,384 students with the help of 1,535,461 teachers. The system includes 180,846 public institutions and 80,057 private institutions. Hence 31% educational institutes are run by the private sector, while 69% are public institutes.

In Pakistan, there are fewer professional development programmes for teacher education generally and for secondary school teachers particularly. Resultantly, these teachers are not able to use latest technologies and knowledge that are needed in the secondary schooling process. Pakistan is amongst those countries that are facing many problems regarding the educational system that are needed to be resolved immediately. The main problem of inequality is among rural and urban public teacher training institutions and particularly between private and public institutions.

In Karachi specifically, the system of teacher training administration has also not received much attention at federal and provincial levels. It is observed that the majority of our secondary school teachers are inducted in educational institutions through political connections in public sector. In the private sector, there is no regulations by the provincial governments to induct trained teachers. This dilemma has weakened the training of teachers as compulsory measure so they lack the ability to teach with fervor and motivation that can increase learners' interest and augment academic performance. When most secondary school teachers are not trained and remain incognizant of challenges of teaching

and learning process, resultantly they do not impart education properly and professionally to prepare secondary students for the future.

Statement of the Problem This research was aimed to examine how the students' achievement is affected by trainee and untrained teachers with reference to secondary education in the district of Karachi. The quality of teacher education in many areas of the city is not up to the required scholastic standards. This issue became the prime reason for the study. The recruitment of teachers in private secondary education schools across the city is dependent on how compelled the teachers are to seek employment. Low pay, long distance from home, job insecurity, incompetent school management and other issues face these private secondary school teachers. Through a research finding of "National Education, 2006", it was concluded that there are 1,356,802 teaching staff in Pakistan and about 90% of the teachers are not trained or are least qualified.

This research enlightens the audience on the effect of untrained teachers on the secondary school students' academic achievement. The primary purpose of this study is to endeavour in the context of classroom management and its effect on the students' academic achievement to educational stakeholders generally and teachers particularly. The secondary school teachers must be aware of the need of curriculum alignment that is the critical connection between the standard objectives, the assessment and the instructional activities and materials. Trained teachers play a central role in the early development of children and secondary students later. So, the secondary school teacher must be trained and effective in developing students' knowledge and skills. The effectiveness of a trained teacher translates a humanistic ideology into broad and dependable set of practical skills by which power of mind and body develop among the secondary students.

Research Questions

1. What is the effect of teachers' professional education on the achievement of secondary school students?
2. By what means does untrained teacher contribute to the low performance of secondary students.

Objectives of the Study

The overall purpose of the study is threefold:

1. To determine the limitations of secondary teacher's performance
2. To examine the performance of professionally-developed and untrained teachers

Justification of the Study

The study is justified in that it assumes the following :

1. Trained secondary teachers must have an understanding of the standards that define expected or intended secondary student's learning and examination performance.
2. Trained teacher must be aware of the instructional activities and the material.
3. Teachers play a vital part in the social development of learners and community at large.

Definition of Key Terms

Trained / Untrained teachers:

Trained teachers refer to those who have endured a prescribed course of B.Ed/M.Ed (Bachelor's in Education & Masters in Education) whereas teachers who have not received professional education related to their subject and level are considered as untrained teachers.

Effect / Influence:

The power of having an impact on someone or something.

Performance:

Performance is defined as the marks obtained in examinations as an execution of improvement in quality.

Development:

The process of developing or being developed.

Academic Achievement:

Academic achievement is the outcome of the desired goals.

Literature Review Many studies have been carried out that show the impression of professionally qualified and unqualified teachers on academic achievement of learners. According to the research, the status of professionally trained and untrained teachers has great impact on the student's achievement. Research has shown that professionally trained teachers are aware of pedagogical skills and have good content knowledge regarding the subject matter. They have good and positive impact on students' achievement whereas untrained teachers might be aware of content knowledge, but not instructional skills. Untrained teachers need immediate guidance to use recent pedagogical skills to improve student's academic achievement. (Farooq & Shahzadi, 2006).

It has been acknowledged that the quality of teachers is the key element of the effective educational system. Quality teachers are conscious of the content knowledge and all the techniques of teaching. So, quality teachers are important for the developmental growth of the secondary student. It is necessary to have effective teaching skills. Duff (1998) also explains that explorations in teaching training is essential for various professional reasons. Trained teachers ensure quality control in the educational system. The teachers must know content knowledge and the best method to impart it and supervise pupil so that they may respond to learners' inquisition and keen desire to explore knowledge. A stouter and surer knowledge base and a greater understanding of methodology contribute to a teacher's power.

Research on effectiveness of trained and untrained teachers suggests that to ensure students' learning, an effective teaching is required. A class that is taught by trained teachers would be motivated, interested and may achieve high expectations whereas untrained teachers and ineffective teaching create tense and stressing environment. They have a single teaching method which is dominant and do not employ variety of teaching methods to fulfill the subjects requirement. The effective teacher according to Good (1998) is one that knows the classroom management skills. An inspiring teacher education programme must enable trainee teachers to demonstrate fine skills of knowledge implementation when trained. These qualities entail skills in the fields of organization,

presentation, analysis, synthesis, assessment, management and evaluation. Furthermore, the ability to improve the mental and warm environment for learning relate positively to student achievements while negative environment relays negatively to achievements of students. According to BERA-RSA. (2014), research and teaching profession are integral for developing a long lasting impact of learner's cognitive approaches. This research in teacher education is pivotal in local context too. It further asserts that a trained teacher does not easily give up, but always supports students, remains responsive, advices and assesses the development of the student. They must listen to student problems and encourage them to be confident and develop faith in them. On the other hand, untrained teachers lack these qualities that promote student progress. They might generate stressful atmosphere that causes trouble in the whole educational system because they are not aware of the modern educational techniques.

Colucci, Das, Gray, Robson & Spratt (2013) asserted the evidence-based practice and action-research in their work. This study is a major guide towards teacher education reform practices. According to them, teaching is not only a profession of teaching students, but it is a duty that assists student's development. The teacher puts emphasis on the effective planning of lesson in order to ensure students' academic achievement. A good teaching includes high flow of planning, initiating activities, time management, resource management, audio visual aids, use of various teaching methods and variety of techniques, use of questioning skills, assessments procedures and evaluation process that supports students' development. Only a trained teacher meets the learning objectives of the lesson through the evaluation process. This view is amply supported by Bernstein (2001) who has constructively endorsed the necessity of teacher education and pedagogic discourse. The study talked about the codes and controls in the modern pedagogic scenario in real classrooms. This research also indicated that effective teaching exhibits the quality of delivering the knowledge of subject matter and use of various skills which provide help that can be deployed easily and quickly in a flexible manner.

Furlong, McNamara, Campbell, Howson, & Lewis (2008) explored in their study that effective school leaders and teachers know that an effective teacher has a positive impression of students' progress. These teachers have great impact on classroom environment and students' behavior and attitude. Students seem to be highly motivated and the teacher feels less stressed regarding the students' performance. In contrast, it is too difficult for untrained teachers to monitor estranged learners' behaviors and use physical punishment as a tool. These teachers create stressful pedagogic situation that does not support student's accomplishment. They do not use knowledge-based teaching and learning and are not able to apply it competently in real classroom situations. They need help to raise student's academic progress and need strong predictor to measure the value through pedagogical training. This unprofessional attitude of teachers' not only discourages students, but also results in their drop out from school.

The secondary education system across the city of Karachi is based on effective teaching that creates a fruitful environment for students, but there are number of untrained teachers

that do not know about teaching skills. Thus, these teachers create a negative effect on student's accomplishments and the pedagogic processes remain disturbed through the behavior and attitude of these teachers. Darling-Hammond (2006) explain that a trained teacher may reveal micro behavior like professional uniqueness and teaching skills while untrained teachers lack these micro behaviors. They must be familiar with modern teaching techniques in order to run the education system. The effective teachers develop student's perceptive capability and their respect for learning. They generate and maintain the instructional settings, materials and strategies to capture and sustain the awareness of their students to make the most effective use of engaging students.

It has been derived from the research that professionally trained teachers have the knowledge about the standards of teaching. They know how a good teacher impacts the scholastic mechanism. They must try to achieve the highest level of skill-based teaching through conspicuous rubrics. Effective teaching promotes assessment of results and inquires by seeking out whether the results are correct or incorrect and evaluate the quality of teaching. Another study highlited that three factors help in measureing the teachers' effectiveness. These are: professional characteristics, their teaching skills and the environment of classroom. They also point out that it is within the teacher's power to influence pupil's achievement. Consequently each trained teacher provides quality in pedagogy and instructions in a formal learning situation.

Moreover, it has been found that trained teachers focus students' concerns regarding content knowledge whereas untrained teahcers do not manage the teaching-learning environment. There are some genuine factors in a formal classroom and they play an eesntial part in the development of learner's personality for a real life experience. They include teacher's academic and professional qualification and students' active participation. These two factors play an important role in students' academic achievement. The effective teaching is necessary for student's success. Some evidences suggest that effective teaching is interrelated with effective learning outcomes. Effective teaching includes organizing of lesson that brings out best in students' learning. Teacher's performance will be adequately monitored and they also model themselves as an advisor and presenters. The effectiveness of teachers is the main factor based on students' performance and are the pillars of the education system. The quality of education relies upon the professional teachers appointed in the school. Research also suggests that teaching profession requires continuous professional development. Recent developemtn in education sector across the country has compelled the secondary teachers to uplift new knowledge and develop skills to stand shoulder to shoulder with the teaching community. A variety of opportunities exist for teachers who wish to enrich and strengthen their commitment to teaching as a profession. Self-evaluation, self-direction, searching new strategies and problem solving are characteristics of a professional teacher.

Method and Procedure Methodology of a research endeavour comprises the tool and techniques for collection of data followed by a set of developed hypotheses. In the present study, empirical testing was the part of the research. Research methodology basically refers

to all the logical and scientific steps, procedures and techniques employed to find out the meaningful answers to research questions. Before conducting the research on any problem, the researcher is required to work out a research design which provides ways for collecting data.

Research Design: The research design selected for the study was experimental in nature. This type of research involves identifying the difference between two samples observed when different treatment is administered to each group. It is an approach through which researcher manipulates one or more variables, controls and measures any change in other variable. The study is quantitative in nature.

Population: The sample was drawn from this population in the current study. It may be of any size and may cover any geographical area that researcher would like to generalize the study findings on. The population of the study consisted of all teachers of public school of a private school operating in the city of Karachi, Pakistan.

Sample: For this study, convenient sampling technique was employed to draw the sample. Teachers with professional qualification and without professional qualification were sampled from the sampled private school. A sample of $n = 100$ students was selected from the same secondary Grade. The selected sample of students was equally divided into two groups. Out of 100 students, 50 were taught by professionally trained teachers and fifty students were taught by untrained teachers.

Instrument of the study: To evaluate the efficiency of teaching of trained and untrained teachers, on the attainment of students' performance of the same standard having same characteristics, structured questionnaire was used. It consisted of 10 items specially constructed to assess students' knowledge after they had been taught by trained or untrained teachers. The questionnaire was specially designed to assess the impact of teachers' professional competency on the achievement of secondary school students.

Study Settings Procedures: Teacher A was a trained teacher with M.Ed as professional qualification. Teacher B was not trained. The teachers had acquired Masters in their academic careers. Both the groups were assigned the same lessons. 50 students were taught by teacher A and remaining 50 students were taught by teacher B. Teacher A was more knowledgeable and used different strategies during the lesson while teacher B displayed good content knowledge, but her lesson was not delivered effectively because of lacking in quality of instruction. A team of trained assistants collected the responses from the students about their learning experiences. This was done to know how the students in the secondary classes experienced and perceived about the effectiveness and professional instructions of the two teachers. The questionnaire helped assess the efficacy of the two secondary teachers in the real classroom management and pedagogic affairs. Students assessed the professional competency of the two teachers based on the knowledge delivery, instruction to the students, command over the subject, content explanation and problem-solving approaches during learning process. This also made it convenient for the students to know to what extent they felt satisfied and understood the lesson. Students' responses were the major tool of evidence to infer about the teacher competency. The data collected through

the questionnaire were numbered and recorded. A variable sheet was developed keeping in view the responses of the samples. With the help of coding in the variable sheet, data was transferred into tables.

Result

Following table describes the learners' achievement and satisfaction scores taught by professionally trained teachers and professionally untrained teachers.

Table 1: Descriptive Statistics of the Sample

Group Statistics					
	Group of Students	N	Mean	SD	SEM
Scores	Taught by Trained Teachers	50	6.28	2.347	0.332
	Taught by Untrained Teachers	50	5.16	2.675	0.378

With a sample of $n = 100$ students (n_1 , 50 students taught by trained teachers and n_2 , 50 students taught by untrained teachers), the means of the collected samples are 6.28 for n_1 and 5.16 for n_2 . Moreover, it is noticeable that the mean score of students taught by professionally teachers (6.2800) is greater than the mean value of students taught by professionally untrained teachers. This shows that the impact of professionally trained teachers is higher than the professionally untrained teachers on the academic satisfaction and achievement of students. This highlights a significant difference in the teaching of professionally-trained teachers and professionally untrained teachers.

For inferential purpose, the researchers applied the data to perform analysis using SPSS V22. Independent sample t-test was performed to measure and compare the means of the two samples comprising the results of the students in secondary classes taught by professional trained and professionally untrained teachers. Table 2 illustrates the inference using the hypothesis test.

Table 2: Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means
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		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Scores	Equal variances assumed	.615	.435	2.225	98	0.028	1.12	.50338	.12107	2.11893
	Equal variances not assumed			2.225	96.374	0.028	1.12	.50338	.12086	2.11914

To test the significant difference between professional trained teachers and professionally untrained teachers, independent sample t-test was applied. This was to ensure effect of teachers' competency on students' academic achievement. From the table, it is shown that the null hypothesis was rejected because there is a significant difference between the performance of students taught by professionally trained teachers and professionally untrained teachers.

This study results show that teacher is the most affecting factor on the students' academic achievement. It also shows a wide difference between effectiveness of professionally trained teachers and professionally untrained teachers. It is professional training of the teacher which has more effect on the students' academic achievement in secondary class context than any other factor. The level of heterogeneity of learners in the secondary classroom was also identified through the inferential statistics.

Discussion

The study underscores the established principle that a teacher in his professional career must be professionally trained to teach effectively and serve accordingly with pertinent scope and professional requirement. The main aim of study was to examine how professionally trained and professionally untrained teachers differ in their professional performance. As the scope of this research was limited to selected private secondary schools of North Karachi, more information in this direction is expected to add to the plethora of knowledge for better decisions and scholastic strategies. Munthe, & Rogne (2015) have explained the significance of sampling in this context for effective research in teacher education programmes. The final sample consisted of 100 students in which 50 students were taught by professionally trained teacher and remaining 50 students were taught by untrained teacher. Data was collected through questionnaire consisting of 10 items. The purpose of this research was to find out the effectiveness of professionally trained teachers and professionally untrained teachers on the academic achievement of students and their examination scores. Analysis of the data clearly shows that professionally trained teachers are more effective with regard to students' academic achievement.

The study has decisive results that professionally trained teachers have more strength to impart pedagogic contents to students. The trained teachers are more effective in

comparison to to untrained teachers in the context of perception about classroom management. The professionally trained teachers are equipped with teaching skills and competency. They can employ new teaching methods which enable them to influence students' learning and their academic performance. On the contrary, students taught by professionally untrained teachers do not get exposure to modern teaching methods because their teachers are not aware of new techniques and skills of teaching. This research also indicates the effectiveness of training in education sector in Pakistan. A substantial difference between professionally trained teachers and professionally untrained teachers in particular areas was significant in the study. The evaluation of teachers in specific areas shows the professionally trained teacher's performance is more effective than that of professionally untrained teacher.

In this situation, it is recommended to organize in-service professional development trainings to equip teachers with modern teaching skills and techniques to enable them to plan pedagogic processes effectively. The study also emphasizes to plan teaching, manage classroom activities, develop successful attempts of content delivery to ensure result-oriented learning and accordingly assess it. The study was able to conform to the studies by Sachs (2016), Shaw (1995) and Westbury, Hansén, Kansanen, & Björkvist (2005).

Recommendations Following recommendations are presented for the betterment of the education system regarding trained and untrained teachers' performances. There should be a monitoring system that can evaluate the performance of the teachers in all specific performance areas. This is to ensure that secondary schools organize practice teaching sessions for untrained teachers that will be administered by subject specialist. Similarly, schools must also introduce latest technologically-equipped teaching methods to improve outcomes of secondary education.

The authorities must also monitor students' learning by exploiting pre and post assessments, providing timely and useful advice, and re-teaching material to students who did not achieve mastery in a specified context. One of the recommendations also includes determining effectiveness with the full range of students' abilities in their classrooms, despite inadequately performed endeavours of some students. By this, secondary teachers must be trained on new and latest standards of education for better progress of secondary students. Another recommendation is to remove hindering factors from teaching and learning process to find ways to mix up lesson plans based upon students' interests.

Secondary schools need to ensure that teacher's recruitment should be done on the basis of merit. They also need to organize programs for in-service teachers on developing content expertise and professional development. This is possible by making use of innovative and effective strategies that bring quality in secondary school teaching. Teacher evaluation systems are often intended to serve the purpose of providing feedback and guidance for improving professional practice.

REFERENCES

- Alexander, R. (1992). *Policy and practice in secondary schools*. Chapman & Hall, 226 pp Routledge. New York.
- Abohamzeh, F., (1988). Comparing the performance of graduates of teacher training centers, schools and teachers to Tehran,. Dissertation submitted to Teacher Training University in Tehran.
- BERA-RSA. (2014). *Research and the teaching profession: Building the capacity for a self-improving system*. Final report of the BERA-RSA inquiry into the role of research in teacher education.
- Bernstein, B. (2001). *The structuring of pedagogic discourse*. Volume IV: Class, codes and control. London: Routledge.
- Brown, G (1993). *Micro-teaching in schools*: A.Raouf Publishers, Tehran School Publications.
- Cochran-Smith, M., Villegas, A. M., Abrams, L., Chavez Moreno, L., Mills, T., & Stern, R. (2016). Research on teacher preparation: Charting the landscape of a sprawling field. In D. Gitomer & C. Bell (Eds.), *Handbook of research on teaching* (5th ed., pp. 439–547). Washington, DC: American Educational Research Association.
- Colucci-Gray, L., Das, S., Gray, D., Robson, D., & Spratt, J. (2013). Evidence-based practice and teacher action-research: A reflection on the nature and direction of ‘change’. *British Educational Research Journal*, 39, 126–147.
- Cross, D. (1988). Observation and teacher evaluation. *Teaching Forum*. Retrieved from http://exchanges.state.gov/English_teaching/froum/archieves/docs/99-37-2-j.pdf.
- Cross, D Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: Teacher learning in communities. *Review of Research in Education*, 24, 249–305.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, 57, 300–314.
- Dean, J. (1991). *Professional development in school, USA*: Open University Press.
- Duff, T. (1998). *Explorations in teaching training*. UK: Longman.
- Fullen, M. (1993). *Teacher development and educational change*. London: Falmer.
- Furlong, J., McNamara, O., Campbell, A., Howson, J., & Lewis, S. (2008). Partnership, policy and politics: Initial teacher education in England under new labour. *Teachers and Teaching: Theory and Practice*, 14, 307–318.10.1080/13540600802037728 [Taylor & Francis Online]
- Good, C. C. (1998). *Essentials of teacher education*. New York: McGraw Hill. Hargreaves, Munthe, E., & Rogne, M. (2015). Research-based teacher education. *Teaching and Teacher Education*, 46, 17–24.10.1016/j.tate.2014.10.006 . [Web of Science ®].
- Sachs, J. (2016). Teacher professionalism: Why are we still talking about it? *Teachers and Teaching: Theory and Practice*, [Taylor & Francis Online], [Web of Science ®].
- Shaw, R. (1995). *Teacher training in secondary schools*. London: Biddles Ltd.
- Westbury, I., Hansén, S. E., Kansanen, P., & Björkvist, O. (2005). Teacher education for research-based practice in expanded roles: Finland’s experience. *Scandinavian Journal of Educational Research*, 49, 475–485.10.1080/00313830500267937 [Taylor & Francis Online].



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