

Enhancing Educational Practices: The Role of Research in Teachers Development

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Abstract

For the last few years, education has become the primary need for people as it prepares the learners to cope with their future work. Education, whether it is a formal, informal or non-formal, is an important part in the process of human being's development particularly because it includes the teaching and learning of knowledge. Teachers as educators play important roles in the process of teaching and learning process to be successful. Yet, it sometimes happens that the teaching and learning process is not as successful as what the teachers expected. This paper aims to propose the significance of doing research for teachers so that teachers can improve their teaching practices and discover something new in the education field. This study employs a library research approach by gathering data and information from existing resources such as books, academic journals, and other scholarly publications. After gathering the data, the writer then categorized them into themes corresponding to the study's main objectives, such as the role of research in teaching and the impact on educational outcomes. The results show that by doing research, teachers will enhance teaching effectiveness. Teachers can adopt strategies that have been proven effective in other contexts. Second, teachers will be able to incorporate innovative approaches in developing the curriculum. Research can introduce new and innovative teaching approaches that make the curriculum more engaging and effective. Third, teachers will develop their professional career as research promotes the formation of professional learning communities where teachers can share insights and collaborate on improving their practices.

Keywords: teachers, research, education

INTRODUCTION

Education is a significant thing in human's life. Education involves the process of learning and human being needs to learn in order to inherit the classical cultures/values. For over the last few years, there has been a shift of the education need. People used to regard education as the secondary need. Now, people might think that it belongs to the primary need as it is the education that prepares the learners to cope with their future work.

The history of education, according to Dieter Lenzen president of the Freie Universität Berlin 1994, began either millions of years ago or at the end of 1770. Education as a science cannot be separated from the educational traditions that existed before. Education was the natural response of early civilizations to the struggle of surviving and thriving as a culture. Etymologically, education is the process which encompasses both the teaching and learning of knowledge, proper conduct and technical competency. Here, education will focus on the cultivation of skills, trades or professions as well as the development of mental, moral and aesthetic. Smith (1992) states that education consists of a more global and integrating outlook focused on knowledge acquisition, thinking, skill development, engagement, morality and the understanding behind the knowledge in all aspects of life. According to Noddings, there are three fundamental purposes that have been

proposed for education (5). They are: (1) The enterprise of civil society depends on educating people to become responsible, thoughtful and enterprising citizens. This is an intricate, challenging task requiring deep understanding of ethical principles, moral values, political theory, aesthetics, and economics, not to mention an understanding of who children are, in themselves and in society. (2) Progress in every practical field depends on having capacities that schooling can develop. Education is thus a means to foster the individual's, society's, and even humanity's future development and prosperity. Emphasis is often put on economic success in this regard. (3) One's individual development and the capacity to fulfill one's own purposes can depend on an adequate preparation in childhood. Education can thus attempt to give a firm foundation for the achievement of personal fulfillment. The better the foundation that is built, the more successful the child will be. Simple basics in education can carry a child far.

Brumfit (2001) cites that education is conceived of as the accumulation by individuals of discourses relating to different areas of activity, communicating with groups of people with shared interests: in science, sport, culture and technologies. Thus, education has wide areas of field. One can have the education in the field of science, sport, culture or any other fields that he is interested in. Referring to the types of education, there are three different types of education: First, it is a Formal Education. Formal education is the hierarchically structured, chronologically graded 'education system', running from primary school through the university and including, in addition to general academic studies, a variety of specialized programs and institutions for full-time technical and professional training. Second, it is a Non-Formal Education. Non-formal education refers to any organized educational activity outside the established formal system - whether operating separately or as an important feature of some broader activity - that is intended to serve identifiable learning clienteles and learning objectives. Third, it is an Informal Education. Informal education is the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment - from family and neighbors, from work and play, from the market place, the library and the mass media. Education, whether it is a formal, informal or non-formal, is an important part in the process of human being's development particularly because it includes the teaching and learning of knowledge. Moreover, it is the education that prepares the learners to cope with his/her future work.

Teaching and Learning Process in Education

Education involves two kinds of process, i.e. teaching and learning. Brown (2000) defined learning as the process of acquiring or getting of knowledge of a subject or a skill by study, experience, or instruction. The concept can also give way to a number of subfields within the discipline of

psychology: acquisition processes, perception, memory system, recall, conscious and subconscious learning styles and strategies, theories of forgetting, reinforcement, the role of practice. Another concept is from Kimble and Garmezy (1963), which defined learning as a relatively permanent change in a behavioral tendency and is the result of reinforced practice. This concept suggests that in learning, there must be changes of behavior in learners after they are in certain process.

'Teaching' cannot be defined apart from learning. Teaching is guiding and facilitating learning, enabling the learner to learn, setting the conditions of learning (Brown, 2000). Teachers need the ability to understand a subject well enough to convey its essence to the students. The goal is to establish a sound knowledge base on which students will be able to build as they are exposed to different life experiences. Studies from the US suggest that the quality of teachers is the single most important factor affecting student performance, and that countries which score highly on international tests have multiple policies in place to ensure that the teachers they employ are as effective as possible.

The subject mastery and a well preparation of teaching are important things in the teaching and learning process to be successful. The lack of subject mastery will result in the poor knowledge of the materials for the teacher to teach and the lack of preparation in teaching will result in the poor quality in teaching. Yet, it sometimes happens that the teaching and learning process is not as successful as what it is expected before although the teacher has a sufficient preparation. What mostly found is that teachers often find problems in the classroom where the teaching and learning process is on progress. Some problems can be anticipated in prompt and some others might need longer process in order to solve them. When teachers are faced in this second condition, they need to have the process of careful investigation and observation to get additional information in order to provide or give solution to the problems. This kind of process can be carried out through the process of doing research. Our next topic deals with conducting a research.

Research Paradigm

There has been a great variety of the definitions of research. According to the English dictionary (Hornby, 1987), 'research' is an investigation undertaken in order to discover new facts, get additional information, etc. Another expert, Brumfit (2001), says that 'research' is essentially a cumulative process, building on what has gone on before. Its ultimate purpose is to provide better and better explanations of phenomena. From numerous definitions of research, research involves the process of investigation which is done in order to solve certain problems, to discover something new or to get additional information and has the ultimate aims, i.e. to provide/give solution on

certain phenomena. Basically, research is done in order to discover something new, to verify the truth of something which has been invented before or to develop certain subject field.

There are some purposes of conducting research. First, research is carried out for explorative purpose. When someone is doing this research, the purpose is to invent something new in certain subject. For example, an expert is doing research of how to find medicine in cancer. This research is aimed to find something new in medical field as nobody yet has found the cancer medicine. Second, research has the purpose of verificative. Within this purpose, research is carried out in order to verify the truth of something invented before. For example, previously it was believed that home schooling is more effective than the common school. Learners are prevented from negative things and uncontrollable behavior. However, experts in psychology later find that learners will have a very minimum or almost no activity to socialize among other friends at the same age. This will result in poor social interaction. Thus, research is conducted in order to find out its effectiveness in home schooling. Third, research has the purpose of developmental. This purpose suggests that research is carried out in order to develop something in certain subject field. For example, an English teacher is conducting a research to find out some effective methods to teach the English proficiency (TOEFL) course for the learners. Fourth, it is done for academic writing. One also does research when he is writing a scientific or academic writing, such as a thesis, scientific journal, and so on.

Brumfit (2001) categorizes three kinds of research, i.e. Pure Research, Action Research and Policy-oriented Research. In pure research, the major intention will be to increase our understanding of the most important unclear areas of current study. For language teaching, these may be questions in psychology, sociology, linguistics or pedagogy which are motivated by a concern to understand what it is that makes certain procedures appear effective in the classroom. The pure research would come up with questions like 'Why do things happen as they do?' and 'How do we explain particular events and particular relationships?'. The ultimate outcome will be to build up a more or less agreed picture of how things work in a particular field. Action Research is type of research that teachers should apply most during their time. It is because action research aims at educating teachers by helping them to become self-aware about their work, and that this is as important an aim as evaluating or information gathering. The real point about this research is that it is closely tied to the certain interests and the needs of particular teachers. The Policy-oriented Research deals with monitoring the effects of policies which have already been decided upon. This research is carried out in order to know whether a particular program is realizing its stated aims and is therefore effective, whether it is effective but in unexpected ways, or whether it is being ineffective. They are all clearly valuable for sponsors and planners. Policy-oriented research is significant as it enables future planning to be more effective and sometimes enables adjustments to be made to programs which are failing to achieve their expectations.

Research must be systematic, because it needs to be explicit about its procedures in order to solve certain problem. Research must also be useful as well as competent, in particular sense. Brumfit (2001) has proposed nine criteria of competent research. Some of them can be used as principles for teachers in carrying out research. First, research involves careful formulation of the questions to be investigated, to ensure that they are not phrased in such a way as to confuse major issues with minor ones, or to embrace many different questions within one vague, general topic which is incapable of being investigated systematically. Second, research involves careful exploration of the best means of investigation for the particular question being addressed. Teachers need thorough exploration as well as investigations for the problems they encounter. Third, research explicits acknowledgement of all previous work which has contributed to the conceptualization, means of collection, and procedures for analysis of the data collected. Fourth, research also engages willingness to publicize the result of the research itself, so that it can contribute to further development by others to the exploration of the same, or related questions. To conclude, competent research is characterized by being a public, systematic and useful activity. Research should be publishable as it needs to be differed from simply improving one's own private understanding of certain phenomena.

Referring to the concept of the research, there are three paradigms of research in English education. First, the Positivist paradigm. This paradigm applies a deductive research strategy (Rationalist side) in which it begins with hypotheses or theory and searches evidence to support or refute. It also applies an inductive research strategy (Behavioralism side) in which it begins with derivation of theories and generalization from empirical evidence. Positivist paradigm sees theory as tool to order, explain and predict facts. Second, the Realist paradigm. The realist paradigm is applied in order to uncover or to reveal the deep structures of social reality by identifying the generative mechanisms. This paradigm sees the theory as a guide to the research and as interpretation to the facts which are found. Third, the Interpretivist paradigm. It sees theory as deriving from data collection and not as the driving force of research. The Interpretivist paradigm helps teachers to understand the social world by describing and interpreting how people conduct their lives.

There has been a growing recognition in the international education community over the last decade of the powerful role of teachers as researchers (Rodgers, 2002). According to Bauman (1996), teachers must be participants in traditional research and development from their first education courses, through their professional development, and on to their service as mentors to new teachers. Teachers need to conduct research in order to help the institutions and people who work in them raise questions about their own goals and practice as part of their everyday work. On to this topic, the researcher will answer three questions as the prime intention. They are 1) What is its significance of research for teachers in education field?, 2) Why is it significant for teachers to

conduct research?, and 3) What are the roles of research in improving teaching practices and educational outcomes?

METHOD

This study employs a library research approach by gathering data and information from existing resources such as books, academic journals, and other scholarly publications. After gathering the data, the writer then categorized them into themes corresponding to the study's main objectives, such as the role of research in teaching and the impact on educational outcomes.

RESULTS AND DISCUSSIONS

The Significance of Research for Teachers

Related to the first problem, we traced back to the phenomena that there has been a qualitative shift in the notion of the classroom teacher over the last two decades, evidenced in expectations of the dynamic new role of teacher as reflective practitioner and collaborative member of an educational community of inquiry (Potter, 2001; Rodgers, 2002). The traditional role of the teacher as the receiver of knowledge of school improvement has been contested over the last decade (O'Donnell-Allen, 2001). There has been growing acknowledgment of the need for the empowerment of teachers through researching their own practice, for teachers to become more aware of the complexities of the school environment, and of teacher research being the self reflection of one's own professional practice (Talay-Ongan & Burgess, 2002; Rodgers, 2002). To practice the educational research, there are three targets to achieve. First, research in education is conducted to achieve learning as a habit formation. This would result in a permanent change in teacher's behavior as it is the impact of the reinforced practice. Second, research is aimed to achieve self autonomy and self actualization. This will lead to further purpose, which is teacher is an empowered individual. Third, the target is to be able to explain phenomena of English language through daily experiences.

In answering to the second problem, 'why is it important for teachers to conduct research in education field?', we shall use the concept of think globally and act locally. First, we would see the importance of doing research from universal facts. Research is significant in order to find the truth, power as well as values toward language teaching issues (Blaxter et al, 1996). Teachers are conducting research also to increase their professionalism. They become more aware of certain phenomena and are able to solve problems in teaching and learning process. Besides, research sees factual information and provides objectives to policy makers (Finch, 1986). The paradigm of teacher-researcher is considered a critical factor in linking effective teaching practice and

continuous professional growth to the processes of inquiry and reflection (Harris, 1998). Second, we view the importance of research from the local facts, particularly in Indonesia as one expanding circle country. Keyes (1999) states that when teachers do the classroom research, they begin to view themselves as learners, their classroom as places where they are learning, and the data collected as data to be understood. Teachers who engage in research are considered to have an increased understanding of the complexities of the school community and learning environment (Caro-Bruce & Zeichner, 1998). Many teachers admitted that doing action research caused them to look at their teaching in a more analytic, focused and in depth way, habits that many claim they have now internalized and made use of subsequent to their participation in the program. Therefore, teachers can function better in their professional teaching career and to improve their life quality. Apart from that, teachers also have a major influence on the learning process. The quality of teacher is a determining factor in learners' perceptions of the value of their task. The research conducted by the teacher should also depend on at least four essential activities: (1) Interpretation by teachers of empirical work from traditions not primarily concerned with classrooms, e.g. Second Language Acquisition research. (2) Empirical work within any tradition carried out and interpreted by people who are, or have been teachers, and can therefore adopt a teaching perspective through their experience (3) Empirical work carried out by non-teaching researchers in close collaboration and consultation with practicing teachers (4) Synthetic examination of work from all these traditions in the light of teaching needs, and sensitive to the experience of being a teacher (Brumfit, 2001). All of these are necessary modes of research especially whenever teaching is not to become unbalanced in its relationship with research.

However, the growing expectation for the professional role of teachers to incorporate the role of reflective practitioner and researcher is not easily accommodated by all practicing classroom teachers. The role of teacher-researcher is not only intellectually demanding but it also prompts serious and often difficult questions about classroom practice and learning outcomes (Keyes, 1999). The complexity of the school and classroom environment can act as a barrier to opportunities for teachers to play the double role of teacher and researcher. Within their daily workplace, teachers are faced with challenges concerned with the time constraints, relationships within school communities, accountability, system pressure, and lack of confidence and experience in the area of research (Potter, 2001).

The last point deals with the procedure of how to conduct research. Related to ways of doing the research, it is useful to distinguish between description, intervention and experiment. Descriptive research will aim at providing as accurate an account as possible of what current practice is: how learners do learn, how teachers do teach, what classrooms do look like, at a particular moment in a particular place. A description that included everything conceivable that happened in the classroom would be unwieldy and incomprehensible. We have to determine what is and is not relevant information, and to do that we need to know what the purpose of our

description is. Simply to say, descriptive research will usually look at classrooms in relation to particular sets of criteria. The intervention research is that in which some aspect of teaching or learning is deliberately changed, so that the effects can be monitored. Thus, new materials may be introduced, new types of learning activity may be devised or used in an environment where they were not previously used, or teachers may be asked to smile more, use the target language exclusively, or participate in small group discussion. The setting is the normal one for teaching and learning, but the research monitors the effect of changes which have been deliberately introduced. Experimental research is somewhat different way. It usually involves a much more formal control of variables, thus teacher needs stopping the classroom. Learners may be put into a language laboratory, or be given highly controlled tasks to ensure that the only factor that they are responding to is the one in which the researcher is interested. Certainly, their results require careful and intelligent interpretation before they are translated into classroom use. But they may contribute usefully to clarification of key issues in associated disciplines (Brumfit, 2001).

There are some researchers proposed the procedure of conducting research. Generally, the steps can be overviewed as follows: First, it is getting started to the research. This will involve choosing the topic or formulating the problems of the research, finding and choosing the supervisor, choosing individual and group research and keeping the research diary. It is important to keep the research progress in a portfolio so that we know its development. Second, we need to think about the methods of conducting the research. It has been stated previously that there are descriptive, intervention and experimental research. After that, we need also to decide about the sampling and selection. Third, it deals with the project management. In order to achieve its effectiveness and efficiency, researcher needs to manage the time properly and map the project. Concept mapping is believed to be effective way to manage the project. Fourth, it is about collecting the data. Researchers need to decide carefully for the data collection, either by conducting interviews, observations or distributing questionnaires. After the data is collected, the fifth step is analyzing the data. This process might spend longer time for researchers as it needs to be done carefully in order to be reliable and valid. The sixth step taken is writing conclusion as well as review all the research result. Researchers need also to take into account the technical things such as the grammar, punctuation and spelling of the language used. After accomplishing all those steps, we must also consider the good criteria of the research. Research should fulfill the criteria of Purposiveness (it has clearance in the goal of the research), Exactitude (research is carried out carefully and thoroughly), Testability (research can be re-tested or re-examined), Replicability (the findings of the research can be examined for its validity by other researchers), Precision and Confidence (research has correlation related with the population or sample), Objectivity (research is objective instead of subjective), Generalization (research is supposed to be open for public),

Parismony (research should be practical and not superfluous), Consistency (research is to be consistent) and Coherency (it has relationship with one part to the other parts).

The Roles of Research in Improving Teaching Practices and Educational Outcomes

Developing evidence-based practice is key to improving teaching. Empirical research is particularly useful in identifying the evidence needed to inform and improve teaching methodology. By engaging with empirical research, teachers can adopt strategies that have been rigorously tested and proven effective in a variety of educational settings. For example, evidence-based practices such as inclusive assessment, collaborative learning, and differentiated instruction have been shown to significantly improve student learning outcomes. These practices empower teachers tailor their teaching to the needs of their students, thus creating an inclusive and effective learning environment. According to Marzano, evidence-based instructional methods are important for maximizing student achievement, as they provide a reliable basis for instructional decisions (Marzano, 2007).

Identifying best practices through comparative studies and meta-analyses further supports effective teaching. These research strategies systematically compare different instructional strategies and combine the findings of different studies to identify the most effective strategies. For example, Hattie's meta-analysis of visual learning identified learning strategies several high-impact types, such as responsiveness, metacognitive strategies and teacher clarity. By focusing carefully on practices to improve teaching and learning (Hattie, 2009), research not only informs teachers of what works but also provides also insights into how they can best incorporate these strategies into their teaching. This ongoing review and revision ensures that instructional practices remain current and effective, ultimately improving educational outcomes for students. Thus, integrating evidence-based practices and identifying best practices through research are important components of teaching effectiveness.

Research also plays a critical role in ensuring that the curriculum is aligned with current educational standards and addresses the needs of students. Educational standards are designed to provide a clear framework for what students are expected to learn at each grade level. Research helps to keep these standards up-to-date with the latest developments in pedagogy and subject matter knowledge. By integrating findings from educational research, curriculum developers can ensure that the curriculum remains relevant and rigorous, meeting both national and international benchmarks. For example, alignment with the Common Core State Standards in the United States ensures that students acquire the critical thinking, problem-solving, and analytical skills necessary for success in college and careers. Studies have shown that aligning curriculum with these standards can significantly improve student achievement by providing a consistent, high-quality educational experience across different schools and districts (Porter, McMaken, Hwang, & Yang, 2011).

Incorporating new and innovative teaching approaches is another key benefit of educational research. Research introduces teachers to cutting-edge strategies that can make the curriculum more engaging and effective. For instance, the integration of technology in the classroom, as supported by research, has revolutionized teaching and learning processes. Tools such as interactive simulations, educational games, and virtual labs provide hands-on learning experiences that traditional methods cannot offer. Additionally, research on collaborative learning techniques, such as peer tutoring and group projects, has demonstrated their effectiveness in enhancing student engagement and learning outcomes. By adopting these innovative approaches, teachers can cater to diverse learning styles and needs, thereby improving the overall quality of education. As Darling-Hammond points out, innovation in teaching practices, informed by rigorous research, is essential for preparing students to thrive in a rapidly changing world (Darling-Hammond, 2006).

Seen from different angle, research plays a pivotal role in supporting teacher professional development, fostering a culture of continuous improvement. By keeping teachers informed about the latest developments in education, research ensures that educators are well-equipped with contemporary knowledge and innovative teaching strategies. Continuous improvement is essential in the teaching profession, as it encourages teachers to reflect on their practices, assess their effectiveness, and make necessary adjustments to enhance student learning outcomes. For instance, studies on formative assessment techniques provide teachers with insights on how to effectively gauge student understanding and tailor their instruction accordingly. This iterative process of improvement not only enhances teaching effectiveness but also ensures that educators remain adaptable and responsive to the evolving educational landscape (Guskey, 2002).

Furthermore, research promotes the formation of professional learning communities (PLCs), which are instrumental in facilitating collaborative professional development. PLCs provide a structured environment where teachers can come together to share insights, discuss challenges, and collaborate on developing best practices. Research indicates that participation in PLCs leads to improved teaching practices and student achievement by fostering a culture of collective responsibility and mutual support among educators. Through regular meetings, peer observations, and collaborative planning sessions, teachers within PLCs engage in continuous professional growth and development. These communities also serve as platforms for disseminating research findings and translating them into practical classroom applications. As DuFour et al. highlight, the success of PLCs lies in their ability to create a sustainable model for ongoing professional development, thereby enhancing the overall quality of education (DuFour, 2010).

Research plays a crucial role in improving student learning outcomes by fostering personalized learning and refining assessment and feedback mechanisms. Personalized learning tailors educational experiences to meet the unique needs and preferences of each student.

Research helps educators understand the diverse cognitive, emotional, and social factors that influence learning, enabling the development of individualized learning plans. For instance, studies have shown that personalized learning approaches, such as adaptive learning technologies and differentiated instruction, can significantly enhance student engagement and achievement. By leveraging data on student performance and learning styles, teachers can create customized learning paths that allow students to progress at their own pace, thereby maximizing their potential (Pane et al., 2015).

In addition to personalized learning, research provides valuable insights into effective assessment techniques and feedback mechanisms that are critical for enhancing student learning and achievement. Formative assessments, for example, are ongoing evaluations that provide immediate feedback to students and teachers about student understanding. This continuous feedback loop enables teachers to adjust their instruction to address learning gaps promptly. Research has demonstrated that timely and constructive feedback is one of the most powerful tools for improving student performance, as it helps students understand their strengths and areas for improvement (Black & Wiliam, 1998). Furthermore, the use of rubrics and self-assessment strategies empowers students to take ownership of their learning by setting goals and monitoring their progress. By integrating research-based assessment practices, educators can create a more responsive and effective learning environment that supports student growth and achievement.

CONCLUSION

From the discussion above, it would seem that research is an essential thing done by teachers so that it will describe and interpret the lived experience. Seeing from the learners' point of view, teaching provides the main context for their language learning, so teaching and its environment are as important objects of research as the learning process itself. Besides, by conducting research we can also control the teaching processes more readily than the internal mechanisms of learning. Thus, understanding how teaching works in practice and how its workings relate to successful learning is a necessary adjunct to effective education.

The integration of research into educational practices is vital for enhancing both teaching effectiveness and student learning outcomes. Empirical research serves as a foundation for developing evidence-based practices that are tailored to meet diverse student needs, ensuring that instructional strategies are both effective and inclusive. By identifying best practices through comparative studies and aligning curriculum with educational standards, research ensures that education remains relevant and rigorous. Additionally, the incorporation of innovative teaching approaches, driven by research, enhances engagement and caters to various learning styles. Research also supports continuous professional development among teachers, promoting a culture of collaboration and improvement through professional learning communities. Moreover,

personalized learning plans and effective assessment and feedback mechanisms, informed by research, empower educators to provide a responsive and supportive learning environment. Altogether, research not only strengthens educational practices but also equips teachers and students with the tools necessary to succeed in a dynamic and ever-evolving educational landscape.

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