Learning, Doing, and Teaching Teacher Research: On Understanding the Teaching-Research Nexus

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Abstract

The article discusses the concept of teacher research, which is a type of qualitative research conducted by teachers or educational professionals in their own classrooms or schools. It emphasizes the need for teachers to have more authority and control over decision-making processes and curriculum development. The article also covers the history of teacher research, its general features, and the process of conducting action research in the classroom. It differentiates between educational research, academic research, teacher research, and action research. The importance of research in teaching and learning is highlighted, along with considerations for conducting research, such as ethical and methodological considerations.

Keywords

action research, learning, research, teacher research, teaching-research
Learning About Teacher Research

Introduction

Something is missing in the way we create and disseminate knowledge in schools and universities. This is the primary message of teacher research. In an era when nationally normed test scores, exit level proficiency exams, and reports from outside experts, rather than classroom teachers’ professional judgments, are looked to as the “real” measure of students’ learning, teachers are seeking change. They want to influence the development of curricula, have more say in decision making, make more choices about what goes on in classrooms. Teacher research, then, is a movement both intellectual and political in its impetus, motivated by a national need to professionalize teaching, thereby investing practitioners with more authority and control in classrooms, schools, and ultimately the fields of education and English studies at large (Ray, 1993).

What is Teacher Research?

Teacher research, also known as practitioner inquiry or action research, is a type of qualitative research that is conducted by teachers or other educational professionals in their own classrooms or schools. It involves systematically collecting and analyzing data about their own teaching practices and student learning, with the aim of improving their own practice and contributing to the larger field of education. The scope of teacher research has grown in recent years, as more and more educators recognize the value of inquiry-based approaches to professional learning and development. Some recent trends in teacher research include a focus on teacher collaboration, the use of digital technologies to support data collection and analysis, and an emphasis on equity and social justice issues in education (Leavitt, 2010).

Teacher Research: A Brief History

Teacher research, also known as practitioner inquiry or action research, has a long history dating back to the 1930s, when John Dewey first proposed the idea of teachers as researchers. However, it wasn’t until the 1970s and 1980s that teacher research began to gain wider recognition and become more formalized as a method of professional development. During this time, teacher research was seen as a way to empower teachers, giving them a voice in educational research and allowing them to improve their own practice. In the 1990s, the movement towards evidence-based practice in education led to an increased focus on teacher research as a means of generating evidence about effective teaching practices (Cochran-Smith & Lytle, 1993). In recent years, there has been a growing interest in teacher research as a means of promoting equity and social justice in education. This has led to a focus on topics such as culturally responsive teaching, anti-racist education, and inclusive practices for students with disabilities.

General Features of Research

Lankshear and Knobel (2004) identified six generic features of research as systematic investigation that apply as much to teacher research as to any other research category.

A research question or issue that has been carefully and clearly framed, and that is manageable

This means a question that is well-focused, that is not too general and that is certainly not too ‘cluttered’. Most importantly, it is a question that we understand in terms of what will count as addressing it in an appropriate way.

An appropriate research design that matches our research question

A research design is a broad strategic approach or ‘logic’ for conducting the research. It must match the kind of question being tackled. An acceptable research design provides a ‘way of going at the question or problem’ that is coherent or appropriate given the kind of question or problem being addressed. Research designs do not have to be complex sorts of things. Other things being equal, so long as it is adequate for the job, the less complicated or more elegant one’s research design is, the better it is. The aim of choosing a design is to get the greatest amount of good quality information and knowledge from minimum clutter and resource inputs.

Something that informs the research question and how to tackle it

All kinds of data and information gathering go on that do not qualify as research. For example, teachers can assess their students and keep records of their scores/results. This on its own, however, is not seen as research. Likewise, teachers can get students to ‘look up’ and gather information on animals, or landforms, or weather etc. without it being research.

For acts of data gathering and information retrieval to be part of research activity they must meet two conditions. First, they must be conducted in relation to something that has been framed as a problem, issue, or as a purposeful question. Second, they must be intended to contribute to understanding some phenomenon and, typically, to supporting some kind of explanation or interpretation – not simply to provide us with information. The moment our teacher begins to frame a question to get at that problem concerning the assessment scores or patterns, and to wonder how to translate that question into a systematic kind of inquiry, we have the beginnings of research. At this point the teacher researcher will start looking for clues as to how the inquiry could proceed.
A suitable approach to gathering data

Tackling a problem or question as a research exercise means gathering relevant information in a methodical way. This doesn’t necessarily mean gathering extra empirical data (e.g. more scores, or observations of students).

Some kind of analysis and interpretation components

Since research is done in response to something we want to understand, explain and be able to act on or change in the light of our findings, we need to have ways of analysing the data we gather, and ways of translating or interpreting our analysis into findings. In many cases it will not be research at all – simply a change intervention. For a change intervention to count as research it must involve an attempt to provide a coherent account of how and why the changes occurred, and why we might reasonably expect changes to occur (or not to occur) under different circumstances or in different settings.

Some statement or artefact that exemplifies and elucidates the five features above, conveys the conclusions drawn from the study, and identifies their implications for our work

To the extent that research makes claims to knowledge and to fostering understanding it is necessarily a public act. There must be some public record that can be accessed by other people in order for the research to be validated.

General Framework for Teacher Research Development

The following is a general framework for teacher research development (Cochran-Smith & Lytle, 2009):

1. Identify a research question or problem to investigate.
2. Conduct a literature review to gather relevant background information and research findings.
3. Plan and design the research study, including data collection methods and analysis techniques.
4. Collect and analyze data, using a variety of quantitative and/or qualitative methods.
5. Interpret and reflect on the data, drawing conclusions and identifying implications for practice.
6. Share the findings and implications with others, such as colleagues, administrators, and the broader educational community.
7. Use the findings to make changes to teaching practice, and continue the cycle of inquiry and improvement.

Difference Between Educational Research, Academic Research, Teacher Research, and Action Research

Educational research, academic research, teacher research, and action research are all related types of research in the field of education, but there are some differences between them (McNiff & Whitehead, 2011). Educational research is a broad term that refers to research conducted in the field of education, including studies on teaching and learning, curriculum development, educational policy, and educational technology. Academic research is a type of research that is conducted by scholars in universities or other academic institutions. It can include research in any field, including education. Teacher research, also known as practitioner inquiry, refers to research that is conducted by teachers themselves, typically in their own classrooms or schools. It is focused on improving their own practice and understanding the learning of their own students. Action research is a specific type of teacher research that is focused on improving practice through a cyclical process of planning, action, observation, and reflection. It involves collaboration between teachers and researchers to solve problems and improve teaching and learning in a particular context.

What is Action Research?

Action research is a form of research that emphasizes the practical application of research findings to improve teaching and learning outcomes. It involves a cyclical process of planning, action, observation, and reflection, with the aim of promoting continuous improvement in education. A recent scope of action research includes its use in addressing issues related to the COVID-19 pandemic and remote learning. Action research has been used to investigate how teachers can effectively teach students in virtual settings, how to ensure equitable access to remote learning, and how to maintain student engagement in online classrooms (Fletcher-Wood, 2021).

Conducting an Action Research in Your Classroom

There are five (5) steps to action research according to Rust and Clark (2007):

Figure 1
Five Steps to Action Research
1. Making the Commitment to Inquiry
2. Designing a Study
3. Making Sense of Experience
4. Improving Your Practice
5. Beginning Again—New & Better Questions

Making the Commitment to Inquiry

The first step in the process of doing action research is to make a commitment. Getting started in action research requires beginning well by taking time to think about your life in classrooms. We are asking you to adopt a professional stance that is centered around inquiry—asking questions about things that others might take for granted. What is working in your classroom, in your teaching? Who is learning? Who is being left out? How does your curriculum provide opportunity to learn? When do you feel like you’re “losing it”? Thus, action research is a way of learning about yourself as a teacher, as a person, and as a guide to learning and development for your students.

Designing a Study

The hardest part of designing an action research study is framing a good question. Avoid questions that can be answered with “yes” or “no.” Avoid questions to which you already know the answer (action research is not very good at proving that “method A is superior to method B”). Action research helps you understand the consequences of your action.

Making Sense of Experience

Data and Analysis - Use your experience to answer your questions. What evidence do you need to convince yourself that you’ve answered your question? What tools do you use everyday that would provide that evidence? The following are some of the everyday tools of inquiry: classroom maps, anecdotal records, time, sampled observations, samples of student work, drawings & photographs, interviews & conversations, surveys, and teacher research journals.

Organizing Data - Then, you should plan to use at least three different tools. This is done for the purpose of triangulation. It helps you to be sure that the results you think you are getting are real and will stand up to scrutiny. The data collection tools that you use will determine how you organize your data.

Analyzing Your Data - Analysis is a process of telling a convincing story about the sense that your data led you to make. As well, you must persuade a skeptical audience that the story that you tell and the sense that you make are supported by evidence. The following is the method on reporting on the results of your action:

1. Describe the action(s) that you took.
2. Reflect on the evidence you have collected.

Improving Your Practice

The following are the guide question on how to rethink the need, the change, and the results:

1. Does the evidence support your claims?
2. Do your colleagues find your argument credible?
3. How does the argument fit into ongoing debates and conversations?
4. What is unique about your setting or context?
5. Will others find your argument useful?

Beginning Again—New & Better Questions

Research starts with a problem and ends with a problem, many problems in the research recommendations may crop as other subjects for the study (Tabuena et al., 2021).

Doing AND Teaching RESEARCH

Introduction

Research is a critical aspect of education, and it plays an important role in the development and improvement of teaching and learning outcomes. As a teacher, it is essential to have a solid understanding of research methodologies and techniques in order to effectively conduct research and use the findings to inform teaching practice.

Teaching research involves guiding students in conducting their own research studies, fostering critical thinking and problem-solving skills, and providing opportunities for students to apply their learning in real-world settings. By incorporating research into the classroom, students can develop a deeper understanding of subject matter and gain valuable skills that can be applied in their future academic and professional pursuits (Creswell, 2014).

Considerations in Doing Research

When conducting research, there are several considerations that researchers need to take into account. The following are some of the most important considerations (Berg, 2018; Creswell, 2014; National Institutes of Health, 2018; Trochim & Donnelly, 2008):
Ethical Considerations

Researchers must consider the potential impact of their research on participants, and ensure that their research is conducted in an ethical manner.

Methodological Considerations

Researchers must carefully consider their research methodology and ensure that it is appropriate for the research question being asked.

Sampling Considerations

Researchers must consider how they will select their study participants, and ensure that their sample is representative of the population they are studying.

Data Collection Considerations

Researchers must consider how they will collect data, and ensure that their data collection methods are reliable and valid.

Data Analysis Considerations

Researchers must consider how they will analyze their data, and ensure that their analysis methods are appropriate for the type of data they have collected.

Time and Resource Considerations

Researchers must consider the time and resources that will be required to conduct their research, and ensure that they have adequate funding and support.

Research Management Guidelines in Basic Education

The Department of Education (DepEd, 2017) in the Philippines has issued guidelines on research management in basic education, specifically in the K-12 program. These guidelines provide a framework for the conduct, management, and dissemination of research in basic education, including:

Research Planning and Prioritization

The guidelines provide a process for developing and prioritizing research questions in basic education, in consultation with stakeholders.

Research Ethics and Protocols

The guidelines outline the ethical standards that researchers must adhere to when conducting research, as well as the protocols for obtaining consent from participants.

Data Collection and Analysis

The guidelines provide guidance on data collection methods and data analysis techniques that are appropriate for research in basic education.

Dissemination and Utilization of Research Findings

The guidelines provide guidance on how research findings should be disseminated to stakeholders, and how they should be utilized to inform policy and practice in basic education.

Adoption of the Basic Education Research Agenda

The Department of Education (DepEd, 2016) adopts the Basic Education Research Agenda which provides guidance to DepEd and its stakeholders in the conduct of education research and in the utilization of research results to inform the Department’s planning, policy, and program development aligned with its vision, mission, and core values. The Research Agenda shall build on gains from existing research, generate new knowledge on priority research areas, focus DepEd’s attention on relevant education issues, and maximize available resources for research within and outside the Department.

Figure 2
Adoption of the Basic Education Research Agenda

It is expected that the findings generated from each theme will fuel evidence-based actions that strategically support the attainment of the Department’s vision and mission, as well as target outcomes of ensuring: (1) access to complete basic education; (2) quality education; and (3) effective, transparent, and engaging governance of basic education. In the same manner, the identified themes dovetail with the Department’s mission, particularly its four key stakeholders. Teaching and Learning responds to students’ and teachers’ needs, Child Protection focuses on the students, Human Resource Development addresses concerns of teaching and non-teaching staff, while Governance centers on administration and stakeholder engagement.
While the themes and questions appear as stand-alone areas of inquiry, the Research Agenda recognizes that many of the listed topics relate to each other. Moreover, the Department recognizes that the following cut across the four themes of the Agenda: (1) Disaster Risk Reduction and Management (DRRM); (2) Gender and Development; and (3) Inclusive Education. Some questions and sub-topics expressly cover these areas of concern. Also, as necessary, separate research questions under these areas have been identified to cater to more specific concerns.

Implementing and Teaching the IMRAD Format Structure in Research and Publication

Implementing and teaching the IMRAD format structure in research and publication has become a widely accepted practice in many academic disciplines. IMRAD stands for Introduction, Methods, Results, and Discussion, and it provides a clear and organized structure for writing research articles. The following are some points to consider on the implementation of the IMRAD format structure in research and publication (Day & Gastel, 2012; Gopen & Swan, 1990; Sackett et al., 2000):

Clarity and Organization

The IMRAD structure provides a clear and organized framework for presenting research findings. It helps readers to follow the logical progression of the research, from the introduction of the research question to the presentation of the results and the discussion of their implications. This clear structure can make it easier for readers to understand the content of research articles and to locate specific information within them.

Peer-Review Process

The IMRAD structure is also useful for the peer-review process. It provides a standard format for reviewers to evaluate the quality of the research and the clarity of the presentation. This can help to ensure that research articles are rigorously evaluated and that they meet the standards of the academic community.

Internationalization

The IMRAD structure is recognized internationally and is commonly used in research and publication across different academic disciplines. This international recognition and use make it easier for researchers to publish their work in international journals and for readers to access research findings from different parts of the world.

Limitations

While the IMRAD structure is widely used and accepted, it is not without its limitations. Some researchers argue that it can be too restrictive, and that it may not always be the best format for presenting certain types of research findings.

The IMRAD structure provides a useful framework for presenting research findings in a clear and organized manner. While it may not be the best format for every type of research, it is widely recognized and accepted in many academic disciplines, and provides a standard format for presenting research findings.

CONCLUDING STATEMENT

The secret of success in the teaching profession is to continually grow and learn. Action research is a way to continue to grow and learn by making use of your own experiences.

In conclusion, doing and teaching research is an essential part of academic and professional development. It requires critical thinking, problem-solving skills, and a willingness to explore new ideas and theories. By following the IMRAD format structure, researchers can organize their findings in a clear and concise manner, making it easier for others to understand and build upon their work.

Additionally, ethical considerations should always be at the forefront of research, ensuring that participants are protected and the research is conducted in a responsible and transparent manner.

REFERENCES


Author(s)' Statements on Ethics and Conflict of Interest

Ethics Statement
The author/s hereby declare that research/publication ethics and citing principles have been considered in all stages of the study. The author/s take full responsibility for the content of the paper in case of dispute.

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