THE SIGNIFICANCE OF RESEARCH TOOLS IN QUALITATIVE DATA COLLECTION FOR PRE-SERVICE TEACHER TRAINING

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Abstract. In the changing field of teacher preparation, qualitative research is crucial for understanding the nuanced experiences of pre-service teachers. The need of qualitative research tools in obtaining thorough, detailed data essential for improving teacher training programs is investigated in this article. It emphasizes how common qualitative methods, such as interviews, focus groups, observations, and reflective diaries along with each other help prospective teachers to develop professional identity, pedagogical awareness, and reflective practice.

Keywords: data collection tools, pre-service teachers, qualitative research, teacher preparation, interviews, observations, reflective practice.

Developing the identity, knowledge, and teaching skills of future teachers depends primarily on teacher education. While qualitative research helps to more closely examine pre-service teachers' opinions, experiences, and interpretations of their training, quantitative research produces generally applicable conclusions. In this context, qualitative data collecting tools are crucial as they shed light on the deep, subjective experiences guiding the professional development process.

Investigating complex events in educational settings where context, emotion, and personal experience significantly affect learning outcomes calls specifically for qualitative research [5]. Qualitative methods are very important in pre-service teacher education as they allow one to record the evolving ideas, motives, and student teacher comments. Understanding the reasoning behind the pedagogical choices made by pre-service teachers can help to improve mentoring systems, curriculum development, and teaching strategies [2].

In teacher education, qualitative research meets a number of goals. It helps program designers and teachers-candidates understand their lived experiences, how they see their obligations, and how they negotiate challenges throughout coursework or a practicum. Dörnyei claims that qualitative research helps

scholars examine the social and cultural dimensions of language education, classroom dynamics, and identity development that is qualities especially relevant to pre-service teachers preparing for real-world classroom settings [6].

Furthermore, qualitative research aligns with the constructivist paradigm supporting many initiatives for teacher preparation. According to constructivist learning theories, which are basic ideas in qualitative research, knowledge is cooperatively generated via interaction and reflection. Therefore, research tools stressing narrative, dialogic, and observational data help to better understand the growth and learning of pre-service teachers.

Teacher education research makes use of many qualitative data collection tools, each with special advantages depending on the goals of the project. Among the most often utilized tools in qualitative research are interviews. They provide a direct path for gathering thorough participant personal stories, beliefs, and values. By properly balancing guided questioning with flexibility, semi-structured interviews help researchers to investigate relevant issues and provide participants the chance to share their opinions [8]. Interviews are often used in pre-service teacher training to probe perspectives of teaching, experiences during practicum placements, or reactions to feedback and assessment.

Focus groups are efficient for exposing common themes, different points of view, and group concerns as well as for facilitating meaningful conversation among a small number of individuals. Since they mirror peer interaction, a common component of reflective seminars or group projects in teacher preparation, they are particularly helpful in that regard. Focus groups may help to clarify how pre-service teachers negotiate their knowledge of classroom management, curriculum design, or student participation [9].

Observational tools help researchers to compile information on pre-service teachers' instructional strategies, interaction patterns, and real-time behavior during their classroom work. Depending on their intended use, observations may be classified as ordered or unstructured. While unstructured observations stress descriptive field notes, structured observations follow pre-defined checklists. Burns (2010) argues that by providing an outsider perspective on educational effectiveness, observational data improves self-reported information from studies or journals.

Many programs designed for teacher training focus on reflective writing. Pre-service teachers may document and analyze their teaching experiences in journals, which typically reveals growing opinions, emotional responses, and educational ideas. For academics looking at the development of teacher identity or the practical application of theoretical knowledge, reflective writing provides vital information [7]. Unlike interviews, diaries capture ideas as they develop and provide the research a chronological component.

Analyzing curricular papers, lesson plans, training materials, or student assessments might help one understand how pre-service teachers interact with pedagogical content and institutional norms. Document analysis helps mainly to understand the larger educational environment and to confirm findings from observations or interviews [3].

Selecting the appropriate qualitative tool is rather workable. The choice depends on the ethical problems, the features of the phenomena under investigation, and the research questions. For example, interviews and diaries might be more appropriate than classroom observations, which can increase anxiety levels, if the goal is to understand how pre-service teachers control classroom anxiety.

Moreover, using many approaches in a complementary manner, also known as methodological triangulation increases the validity and depth of the research results. Combining observations with interviews helps researchers to match preservice teachers' words with their behavior, therefore exposing any differences between belief and practice [11].

In qualitative research, ethical concerns are crucial. Sometimes pre-service teachers find unstable jobs within hierarchical companies. Fundamental elements of ethical research practice include informed permission, confidentiality, and the possibility to withdraw [1].

The improvement of teacher education is much influenced by the competent use of qualitative research tools. First of all, it encourages pre-service teachers to develop critical thinking and lifelong learning by means of a culture of ideas and research. Second, it provides realistic knowledge on areas needing development within their programs and successful methods for teacher educators [10].

Qualitative data may ultimately direct institutional policy. Data from focus groups or journal studies, for instance, can reveal systematic issues such inadequate mentorship during a practicum or a discrepancy between theoretical

and practical elements of instruction. Using evidence to address these challenges might provide more coherent and encouraging systems of teacher preparation.

Data collecting that captures the nuances of pre-service teacher education depends on qualitative research tools. Different insights from interviews, focus groups, observations, diaries, and document analyses help to improve a whole awareness of the training experience. As teacher preparation advances, the purposeful use of these approaches will be absolutely vital in producing thoughtful, competent, and flexible teachers. Later research should improve these tools and look at fresh approaches to record the viewpoints and experiences of people ready to shape the future generation.

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