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MIXED METHODS METHODOLOGY IN INTERNATIONAL EDUCATION

Annotation. This article explores the application of mixed methods in international education, emphasizing the integration of qualitative and quantitative approaches. It discusses the benefits of participatory action research, thematic analysis, and reflexivity in strengthening the validity of research findings. Practical strategies and ethical considerations for combining research paradigms are also proposed.

Key words: *mixed methods, participatory action research, research methodology, thematic analysis, reflexivity.*

Анотація. У статті розкрито можливості та виклики застосування методології змішаних методів у міжнародній освіті. Розглядається поєднання якісних і кількісних підходів, а також роль партисипативного дослідження та етичної рефлексії у створенні надійної дослідницької бази. Запропоновано рекомендації щодо ефективного використання тематичного аналізу й інтерв'ю у контексті освітніх реформ.

Ключові слова: змішані методи, партисипативне дослідження, методологія дослідження, тематичний аналіз, рефлексивність

Introduction. Nowadays, research is seen as a systematic, worldview-based study of one's own actions in the workplace or organizational context and the consequences of those actions. Such activity represents an in-depth analysis of one's professional practice. The most active research in this area has been conducted in the past decade (K. Goodnough, 2011) [5], (R. Nixon, 2016) [8], (E. Erbilgin, 2019) [3] to identify the participatory action research methodology's strengths, weaknesses, opportunities, and tensions.

Among the strengths of the participatory action research methodology, E. Erbilgin (2019) [3] identified a focus on collaborative lesson preparation and reflection to enhance the professional development of mathematics teachers. The author noted that improving teachers' skills in lesson planning and understanding the mindset of future teachers ensured that action research was used to generate local knowledge and improve teaching methods.

R. Nixon (2016) [8] demonstrates how a focus on student-centered learning fits well with contemporary educational reforms. Collaboration between principals and teachers in professional development has shifted this process from «top-down» to «bottom-up». The benefits of collaborative action research in facilitating the effective implementation of student-centered practices have been discussed earlier (K.

Goodnough, 2011) [5]. The study highlights positive changes in confidence and professional identity due to participation in the action research process.

The study (E. Erbilgin, 2019) [3] found difficulties in shifting from traditional teaching methods to more student-centered ones. He also emphasized the limited scope of the study due to the participation of only two teachers. According to R. Nixon (2016) [8], stronger administrative support can ease the transition to a moral-based teaching model, though maintaining consistency between schools and participants remained difficult.

Another weakness is that some teachers had difficulty sustaining research practices after the formal projects were completed (K. Goodnough, 2011) [5]. His study focused mainly on science, limiting the transferability to other subjects.

The purpose of the article is to analyze modern methodologies in international education. This requires analyzing and synthesizing new insights into the research problem from the literature. For this purpose, several core strategies are usually suggested: identifying patterns and gaps, which helps to see the relationships between works and build a higher understanding of the topic, and critically evaluating the literature. This helps formulate an informed opinion about the reliability of the relevant knowledge base in the research area.

Research Results. Over time, action researchers developed a deep understanding of how multiple social and environmental forces interacted to create complex patterns. E. Erbilgin's (2019) [3] work reveals the possibility of a broader impact on teachers when implementing action research methodology. The author demonstrates how action research can bridge the gap between theory and practice. R. Nixon (2016) [8] also highlights the potential for creating communities of practice, helping improve pedagogical strategies and student achievement.

One main tension is maintaining consistency in teacher learning across different certification programs, which can be challenging (E. Erbilgin, 2019) [3]. The time limitations of reduced certification programs also hinder the full implementation of a

reform-oriented teaching approach. R. Nixon (2016) [8] shows tensions when teachers and principals face difficulties transitioning to a distributed leadership model.

In general, teachers often face institutional and time limitations when attempting to continue action research (K. Goodnough, 2011) [5]. The interplay between personal identity and institutional expectations created tensions that were difficult to overcome.

In my opinion, this requires analyzing and synthesizing new insights into the research problem from the literature. For this purpose, several core strategies are usually suggested: identifying patterns and gaps, which helps to see the relationships between works and build a higher understanding of the topic, and critically evaluating the literature. This helps formulate an informed opinion about the reliability of the relevant knowledge base in the research area. Another important aspect is the integration of theories, which builds a more comprehensive narrative to complement the existing scientific picture of the world.

Paper (J. W. Creswell & V. L. Plano Clark, 2011) [2] presents the philosophical assumptions and interpretive frameworks that the author can go beyond when reviewing the existing literature. By going beyond the interpretive framework, one can identify the main themes and reveal the relationships between them to create new meaning and build arguments to support one's research.

Also, authors (J. W. Creswell & V. L. Plano Clark, 2011) [2] suggested using critical analysis of methodologies not only to compare the findings of other researchers but also to analyze their methodologies. According to J.W. Creswell, this helps to identify the strengths and weaknesses of existing research and to determine the contribution of new research. This stage is crucial for determining the reliability of the knowledge base in the area under study, ensuring that the conclusions drawn are based on reliable and valid evidence.

What are some of the challenges an interviewer should be aware of before beginning an interview?

Mankind has not come up with a better way to study a personality than an interview. Interviews are used by psychologists, sociologists, and HR professionals. In the article «Generalization in Quantitative and Qualitative Research: Myths and Strategies» by D.F. Polit & C.T. Beck (2010) [9]. The characteristics of different types of interviews in qualitative research are not as detailed as the work done in 2021 and 2023. It mainly focuses on generalization models and strategies for improving generalizability in research.

Each type of interview is chosen according to research objectives. Structured interviews are more suitable for research aimed at generalizing findings, while unstructured interviews allow for in-depth contextualization of specific cases. They contain a predefined set of questions asked of all participants. The information generated is presented as consistent and comparable data between participants, suitable for systematic comparisons, but may limit the depth of insights.

Semi-structured interviews provide in-depth insights with flexibility in question sequence and wording. They offer the opportunity for participants to discuss what they consider important, providing richer qualitative data while maintaining some consistency between interviews. Unstructured interviews, on the other hand, are very flexible, with no fixed set of questions. The interviewer leads the conversation based on the participant's answers, generating exploratory insights but with less comparable data between interviews.

Group interviews, where several participants discuss a topic under the guidance of an interviewer, can provide interactive data. Participants respond not only to the interviewer but also to each other, illuminating group dynamics, shared experiences, or differences of opinion.

V. Brown and V. Clarke's (2021) [1] article on thematic analysis (TA) shows how these types of interviews are used in qualitative research. The authors emphasized that thematic analysis can differ significantly depending on the study's paradigmatic assumptions. Structured interviews are well-suited for deductive coding, while semi-

structured interviews benefit from inductive thematic analysis, where themes emerge from the data rather than being predefined.

Unstructured interviews, often used in exploratory research, support reflective thematic analysis. They allow respondents to direct the conversation, generating unexpected data and allowing researchers to develop themes inductively.

J. Thompson's «A Guide to Abductive Thematic Analysis» (2022) [10] discusses the use of interviews in abductive thematic analysis. Transcribing interviews with improved grammar (denaturalization) is an important process for deeper immersion in the data. Interviews generate a large amount of qualitative data that needs to be condensed into codes to facilitate analysis and theme development. These themes represent deeper patterns of meaning in the data. Interviews produce both explicit content and latent themes, offering rich narrative data for qualitative research.

According to the principles discussed in the article (L. Finlay & B. Gough, (2003) [4], reflexivity in research is achieved when researchers critically evaluate themselves or their personal biases and subjective influences on the research. Such reflection emphasizes the ethical responsibility of researchers to manage the dynamics of power, bias, and the welfare of participants throughout the research process. The authors analyzed the importance of research ethics separately: for the researcher, for participants in the research process, for the academic and scientific community, and society overall.

Ethical standards help researchers maintain honesty and credibility in their work. Their reflexivity forces them to recognize their biases and the influence of their social position, guaranteeing transparency and fairness in their approach to research. The researcher should be aware of how his or her personal experience and background may influence interpretations and interactions with research participants.

On the other hand, for research participants, ethics provides a prerequisite that research participants will respect each other, especially when it comes to vulnerable groups (e.g., people with disabilities and marginalized groups). The article emphasizes

the need for a reflexive approach to minimize power imbalances and avoid objectification of participants, thus protecting their rights.

In the scientific academic environment, research ethics is the basis for creating reliable, credible, and valid scientific results. As discussed in the article, reflexivity in the scientific environment encourages researchers to question traditional structures of power in knowledge formation. It makes them transparent about their methods and limitations, increasing the credibility of their results.

In a social context, ethical research contributes to the well-being of society by ensuring that research on social or health issues is conducted with integrity and respect for human rights. Reflective social practices encourage researchers to critically evaluate the social and political implications of their research, ensuring that it makes a positive contribution to social change and does not cause negative consequences.

Thus, research ethics is important not only for the protection of participants but also for the integrity of the researcher and the broader scientific community. Through the development of reflexivity, researchers actively address ethical dilemmas, ensuring more responsible and inclusive research practices.

Mixed methods research, also known as hybrid methods research, is an evolving research methodology that involves the methodical integration or combination of quantitative and qualitative research approaches within a single research study.

Mixed methods research incorporates the strengths of both qualitative and quantitative methods, facilitating researchers in investigating diverse perspectives and discovering relationships between the complex layers of sophisticated research questions.

Mixed methods can be understood as a methodology. Alternatively, mixed methods can be seen as one of three overall «approaches» to research (alongside qualitative or quantitative approaches), within which we might identify a more specific methodology for a particular study such as case study, phenomenology, or grounded theory (any of these can be done using mixed methods). Either way, our research (including both

methodology and methods) still sits within a paradigmatic framework, whether we realize it or not.

Mixed methods research has been chemical research in the past 20-25 years. It's easy to see the appeal. Quantitative research can give us a broad picture based on a large sample, with numeric data that can be manipulated statistically, and can help us say what has happened. Qualitative research lets us go deep and explore stories, nuances, and experiences from fewer participants, helping us say how or why things have happened. Combining both (where this makes sense given our research questions) offers us the best of both worlds.

Mixed methods research can be done well or poorly. One key challenge is ensuring that the integration of the qualitative and quantitative components makes sense. Mixed methods studies should not simply be two effectively distinct studies (one qualitative and one quantitative) on the same topic. To be able to combine qualitative and quantitative elements coherently requires paying attention to our research paradigms. There are many different paradigms identified in the literature; commonly used paradigms within social research include post-positivist, interpretivism/constructivist, transformative/critical, Indigenous, and pragmatist paradigms (N. Mackenzie & S. Knipe, 2006) [6].

The article by K. McChesney (2019) [7], «Paradigms for Mixed Methods Research», provides an overview of the different paradigms used in mixed methods research and their importance in social research. K. McChesney (2019) [7] claims that the use of paradigms increases the reliability and significance of research by allowing qualitative and quantitative methods to be combined to better understand complex social phenomena. Mixed methods allow for considering contexts that are important for a comprehensive understanding of social phenomena that cannot be fully explored using only one approach.

Conclusions. Mixed methods research strengthens the reliability of findings by integrating qualitative and quantitative approaches, ensuring a more comprehensive

understanding of international education. It enables researchers to explore cross-cultural educational practices, adapting methodologies to diverse learning environments.

Participatory action research contributes to professional development and collaborative learning among educators worldwide. Its application in international education fosters innovation by allowing teachers and administrators to address local challenges while benefiting from global perspectives. However, institutional barriers and time constraints remain key challenges in implementing these methodologies effectively.

By combining mixed methods research and participatory action research, international education can evolve towards more inclusive, research-driven improvements, ensuring that diverse educational contexts are considered in global academic advancements.

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