

I. What is the topic of your action research?

The topic of my action research is technology-enhanced project-based learning for newcomer emergent bilingual students in middle school language arts classes. It is derived from my [innovation plan](#) which is based on a needs assessment of my school district and a review of the literature on best practices for newcomer emergent bilingual students. I have identified and co-developed a technology-enhanced project-based learning model/curriculum as a potential solution to the problem of low academic and linguistic achievement amongst this growing student population.

II. What is the purpose of your study?

The purpose of my study is to evaluate the effectiveness of this innovation/curriculum and to improve my practice as an educator. I want to know if technology-enhanced project-based learning can help students develop their academic and linguistic skills. Additionally, I would like to understand how I can implement this innovation/curriculum in a way that is feasible, sustainable, and responsive to the needs and interests of my students and stakeholders.

III. What is your research question?

How does technology-enhanced project-based learning affect the academic and linguistic performance of newcomer emergent bilingual students in middle school language arts classes?

My research question is formulated to address the main aspects of my topic and purpose. It specifies the independent variable (technology-enhanced project-based learning), the dependent variables (academic and linguistic performance), and the population of interest (newcomer emergent bilingual students in middle school language arts classes).

IV. What is your research design (Qualitative, Quantitative, or Mixed Methods)?

My research design is mixed methods, which combines qualitative and quantitative approaches. I chose this design because it will allow me to capture the nuances of my topic of interest, and to triangulate and validate my findings from different sources and methods. A mixed-methods design will also enable me to answer different types of sub-questions that relate to my main research question, such as descriptive, explanatory, exploratory, and evaluative questions. For example, I can use quantitative methods to describe the changes in academic and linguistic performance related to graded assessments, and to explain the relationship between technology-enhanced project-based learning and these outcomes. I can also use qualitative methods to explore the perceptions and experiences of students (and stakeholders, and to evaluate the strengths and weaknesses of my innovation/curriculum.

a. Why did you choose this design?

I chose this design because it will provide me with a comprehensive and holistic understanding of my innovation and its impact. The measurement instruments selected will help me to measure and document the changes and outcomes of my innovation. As mentioned above, I will be able to track the performance, perceptions, and experiences of middle school newcomer emergent bilingual students which will allow me to evaluate the effectiveness and efficiency of my innovation in improving their academic and linguistic outcomes.

V. What data will you collect?

The data that I will collect are pre-tests, unit assessments, TELPAS, surveys, interviews, observations, and student artifacts. These data sources will provide me with both quantitative and qualitative data that are relevant and sufficient to answer my research question and potential sub-questions. For example, I can use pre-tests, unit assessments, and TELPAS to measure the academic and linguistic performance of my students before and after the implementation of technology-enhanced project-based learning. I can also use surveys and interviews to collect the opinions and feedback of my students (and stakeholders) on the innovation/curriculum and students' self-perception of their own growth. I can use observations and student artifacts to document the learning process and outcomes of my students, and to assess their engagement and understanding.

VI. What types of measurement will you use?

The types of measurements that I am considering are descriptive and inferential statistics, content analysis, and thematic analysis. These measurement techniques will help me to analyze and interpret the data that I collect, and to answer my research question and sub-questions that might arise. For example, I can use descriptive statistics to summarize the scores and changes in academic and linguistic performance, and inferential statistics to test the significance and effect size of technology-enhanced project-based learning on these outcomes. I can also use content analysis to code and categorize the responses from surveys and interviews, and thematic analysis to identify and report the main themes and patterns that emerge from the data. I can use these techniques to compare and contrast the quantitative and qualitative data, and to draw conclusions and implications from the results.

VII. What is the focus of your literature review?

The focus of my literature review is to provide a comprehensive background on the following topics: newcomer emergent bilingual students and their challenges and opportunities, project-based learning and its benefits and challenges, technology integration and its impact on student learning and engagement, and mixed-methods research and its advantages and limitations. These topics are relevant and important to my research question and purpose because they will help me ground my study in the existing literature, to justify my choice of innovation/curriculum and research design, and to support my data collection and analysis methods. I will also use the literature review to identify the gaps and limitations in the current knowledge, and to explain how my study will contribute to filling these gaps and addressing these limitations.

References

Mertler, C. A. (2020). *Action research: Improving schools and empowering educators* (6th ed.). Sage Publications, Inc.