Research Method

In the chapter, the researcher detailed the methods used to conduct the research and discussed the rationale for the selections.

Design of the Study

The purpose of this study is to measure the effectiveness of using Khan Academy Web-based program within the Library Media Center as a resource to improve academic mathematical skills performance for third grade students. Mixed Methods research will be utilized in this study. “Mix methods research designs combine quantitative and qualitative approaches by including both quantitative and qualitative data in a single study” Gay, Mills, and Airasian, 2011, p. 483).

The researcher assumes the role as a Transformational leadership role is concern with improving the performance of followers and developing followers to their fullest potential (Northhouse, 2013).

“Action research in education in any systematic inquiry conducted by teachers, principals, school counselors, or other stakeholders in the teaching learning environment that involves gathering information about the ways in which their particular school operate, the teacher teach and the students learn” Gay, Mills, and Airasian, 2011. P. 508).

Action research provides the teacher to conduct student to work varied settings such as individual, collaborative, small group, school wide (Gay, Mills, and Airasian 2011).

The following are steps in the process of Action Research; identify an area of focus, collect data, conduct data analysis and interpretation and develop and action plan. The researcher will data gathered from questionnaires, audio recordings, interviews, artifacts, demographic surveys, pre and post assessments test Skype and Facetime interviews.

The study group will consist of thirty third grade students. The parents will be requested prior to the purposed study to read and sign a consent or Institutional Review Board Form approved by New Jersey City University requesting permission for their child to participate in the study which will take place within the library’s community technology center. The students will access Khan Academy to work on mathematical skills. Khan Academy is a non-profit organization who mission is to provide a free, world-class education for everyone, anywhere. All the resources are free for teachers, student teachers, home-schooler, principal, and parents to utilize. The student will access the website from the Library Media Center, home, or any location with internet access.

Documents used in the Study

There are a number of document used in this study and will be attached to the appendices. The IRB (Institutional Review Board) document must be signed prior to conducting the research study. The IRB (Institutional Review Board) document ensures that all procedures and guideline are followed in the research to protect the participants. A letter will be submitted to the school principal requesting permission to conduct this study confirming district approval under the auspices of New Jersey City University. Documents used during the study include a daily log to reflect time allocated for the study, surveys and rubrics to measure the cognitive domain of Bloom’s Taxonomy.

Resources

The resources engaged in this study consist of the researcher, students, and technology. The Congressman Frank J. Guarini Library of NJCU provided databases allocated for the usage of research purposes. Khan Academy is a web based program to provide insight to the learner’s progress in the subject area of math.

Participants

The participants who will take place in this study will include thirty third grade students. The student will be regular education and special educational students. All the students will be approved to participate in the pending return of parent consent form. The anticipated study will start in September and conclude in December.

Data Collection

The researcher will submit the IRB (Institutional Review Board) packet for approval to member serving on the approval committee from New Jersey City University.

Afterward, the researcher will request written consent approval from the school principal to permit the research to take place. Parent will receive a consent form requesting their child may participate in the study. The researcher will create a survey for the students and use to create a profile on each participant. In order to know what specific area of math to address, the researcher will collect math data on the participants to determine the strengths and weaknesses. A rubric containing the cognitive domain of Blooms Taxonomy will be analyzed to track the progress of the participants.

Data Analysis

The researcher will collect all data and create spread sheet to reflect findings. Surveys will also reflect the profiles of the participants. Research will be conducted on various math web based programs.

Summary

The researcher will collect and analyze all data to determine if Khan Academy played a vital role in increasing math school for third grade students.

BIBLIOGRAPHY

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