

INSTRUCTIONAL COMPETENCY OF MATHEMATICS TEACHERS IN SELECTED SCHOOLS IN QUEZON CITY AS BASIS FOR A TRAINING PROGRAM

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ABSTRACT

This study determined the instructional competency of Mathematics teachers in selected schools in Quezon City as the basis for a training program. It described the respondents' profile in terms of age, highest educational attainment, and teaching position; assessed instructional competency in instructional delivery, classroom management, assessment, and personal soft skills; examined the relationship between profile variables and instructional competency; identified problems encountered by teachers; and evaluated the acceptability of the proposed training program. A two-phase "descriptive-developmental research" design was used. Data were gathered through a structured survey questionnaire administered to 150 Mathematics teachers and 50 Master Teachers. Frequency, percentage, weighted mean, and correlation analysis were used to analyze the data. Most respondents were 26–35 years old, had completed Master's degree units, and held Teacher I positions. The teachers were highly competent in all four domains, with personal soft skills receiving the highest mean. The analysis indicated no significant relationship between respondents' profile and instructional competency. The most common problems were learners' limited ability to work independently and insufficient teaching and learning resources, facilities, and equipment. The proposed training program obtained an overall mean of 4.06 and was assessed as acceptable. The study concludes that Mathematics teachers possess strong instructional competencies but continue to need institutional support, adequate resources, and sustained professional development. The proposed program may be used to strengthen teaching practices and address the identified instructional concerns.

Keywords: *Instructional competency, Mathematics teachers, Training program, Quezon City, Professional development*

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INTRODUCTION

Instructional competency is an important factor in the quality of Mathematics education. Mathematics teachers are expected to possess adequate knowledge of the subject, use effective teaching strategies, manage the classroom, assess student learning, and demonstrate professional and personal skills. These competencies help teachers explain mathematical concepts clearly, respond to learners' needs, and create learning experiences that develop reasoning, problem solving, and confidence in mathematics.

Effective instructional delivery requires clear lesson objectives, mastery of subject matter, logical presentation, relevant examples, higher-order questioning, appropriate teaching methods, and the use of instructional

materials. Classroom management supports these practices by maintaining an organized and respectful environment in which learners can participate actively. Assessment also enables teachers to determine what students understand, identify learning difficulties, provide feedback, and improve subsequent instruction.

Mathematics teachers also need personal soft skills such as communication, collaboration, leadership, adaptability, integrity, and commitment to professional growth. These skills strengthen relationships with learners, colleagues, school leaders, parents, and the community. They also help teachers participate in research, professional learning, school improvement, and community programs.

Despite teachers' efforts, Mathematics instruction may be affected by learners' difficulty in working independently, insufficient instructional resources, inadequate facilities, and limited opportunities for professional development. These concerns require both teacher improvement and school support. Training programs are more useful when they are based on actual evidence about teachers' strengths, needs, and classroom challenges rather than on general assumptions.

This study therefore assessed the instructional competency of mathematics teachers in selected schools in Quezon City. The findings served as the basis for a proposed training program intended to strengthen instructional delivery, classroom management, assessment, and personal soft skills, while also responding to the problems encountered by teachers.

RESEARCH PROBLEMS

This study sought to answer several key questions, beginning with determining the profile of the respondents in terms of age, highest educational attainment, and teaching position. It also aimed to evaluate the level of instructional competency of mathematics teachers—as assessed by both teachers and Master teachers—specifically focusing on instructional delivery, classroom management, assessment, and personal soft skills. Furthermore, the research investigated whether a significant relationship exists between the respondents' profiles and their instructional competencies, while also identifying the problems encountered by these teachers that affect their performance. Finally, based on the findings, the study sought to propose a relevant training program and determine its overall acceptability as assessed by the respondents.

OBJECTIVES

The study aimed to determine the instructional competency of Mathematics teachers in selected schools in Quezon City as the basis for a training program. Specifically, it aimed to describe the respondents' profile; determine their level of instructional competency; examine the relationship between profile variables and instructional competency; identify the problems encountered in teaching; develop a training program based on the findings; and determine the acceptability of the proposed program.

METHODOLOGY

The study employed a descriptive-developmental research design carried out in two distinct phases: Phase 1 Assessment Instrument: A structured survey questionnaire was first administered to gather demographic profile data, assess instructional competency across the four domains (instructional delivery, classroom management, assessment, and personal soft skills), and identify challenges encountered in teaching. Phase 2 Program Evaluation Instrument: Following the development of the training program based on Phase 1

findings, a separate evaluation questionnaire was administered to the respondents to measure the program's acceptability across criteria such as flexibility, systematic design, clarity, and institutional usefulness. Both instruments utilized a five-point Likert scale. After obtaining necessary permissions from school authorities, questionnaires for each phase were systematically distributed, collected, checked, tabulated, and analyzed while maintaining strict confidentiality and voluntary participation.

The respondents were 200 education professionals composed of 150 Mathematics teachers and 50 Master teachers. The Mathematics teachers provided self-assessments of their instructional competency, while the Master teachers provided supervisory assessments. The respondents represented different age groups, educational attainments, and teaching positions.

A structured survey questionnaire was used as the main research instrument. It gathered information on the respondents' profile and measured instructional competency in four areas: instructional delivery, classroom management, assessment, and personal soft skills. It also identified the problems encountered by teachers and evaluated the acceptability of the proposed training program. Responses were measured using a five-point Likert scale.

After permission was obtained from the school authorities, the questionnaires were distributed to the respondents. Participation was voluntary, and respondents were informed of the purpose of the study. Completed questionnaires were collected, checked, tabulated, and analyzed. Confidentiality and anonymity were maintained throughout the study.

Frequency and percentage were used to describe the respondents' demographic profile. Weighted mean was computed to determine the levels of instructional competency, the extent of challenges encountered, and the overall acceptability of the proposed training program. Correlation analysis was utilized to examine the relationship between respondent profiles and instructional competency levels

SIGNIFICANT FINDINGS

The findings of the study were presented according to the research problems.

Most of the respondents were 26–35 years old. This group consisted of 90 respondents or 45.00% of the total sample. In terms of educational attainment, 96 respondents or 48.00% had completed master's degree units. Regarding teaching positions, 85 respondents or 42.50% were Teacher I. The profile indicates that the participants were largely early- to mid-career educators who were pursuing professional advancement through graduate education.

The evaluated mathematics teachers demonstrated a high level of instructional competency across all four domains, corroborated by both self-assessments and Master Teacher supervisory evaluations. Instructional delivery obtained a composite mean of 4.21, characterized by effective use of teaching aids and curriculum alignment. Classroom management and assessment each garnered composite means of 4.28, reflecting consistent classroom climate control and aligned evaluation practices across both rater groups. The mathematics teachers demonstrated strong competency in designing aligned formative and summative assessment tools, monitoring student learning progress, identifying specific learning difficulties and mathematical misconceptions, utilizing diagnostic data to adjust instruction, and providing timely, constructive feedback to guide learner improvement

Personal soft skills received the highest rating, yielding a composite mean of 4.71. The combined overall mean across both teacher self-assessments and Master Teacher ratings was 4.37, indicating that the teachers were assessed as highly competent from both self-evaluative and supervisory perspectives.

Correlation analysis revealed no significant relationship between the respondents' demographic profile (age, highest educational attainment, and teaching position) and their instructional competency levels. This indicates that the teachers' high competency ratings were consistent across different demographic and professional backgrounds

The most frequently encountered problem was learners' limited ability to work independently on assigned activities. This was followed by insufficient teaching and learning resources, facilities, and equipment. Some teachers also encountered learners who were not inclined to learner-centered approaches. Less frequently reported problems included learners' difficulty in seeing the relevance of mathematics to daily life, limited in-service training, and difficulty in achieving basic competencies and learning objectives.

The proposed training program was evaluated positively by the teachers and master teachers. It was considered flexible, systematic, concise, comprehensive, clear, beneficial to the school, and useful for improving practice. The program obtained an overall mean of 4.06 and was interpreted as acceptable.

CONCLUSIONS

The study concludes that Mathematics teachers in the selected schools in Quezon City possess a high level of instructional competency in instructional delivery, classroom management, assessment, and personal soft skills. Their strongest area was personal soft skills, while instructional delivery obtained the lowest of the four domain means, although it was still rated highly competent.

The respondents' demographic profile was not found to have a significant relationship with instructional competency. Teachers nevertheless experienced challenges involving learners' independence and the availability of instructional resources. The proposed training program was considered acceptable and may be used to support continuous professional development and instructional improvement.

RECOMMENDATIONS

To strengthen teachers' instructional competency, the proposed training program may be implemented on a pilot basis and carefully evaluated for its effectiveness. Alongside this initiative, school administrators should provide continuing professional development focused on instructional delivery, classroom management, assessment literacy, technology integration, and learner-centered mathematics teaching. Collaborative practices—such as mentoring, peer observation, lesson study, and professional learning communities—must also be strengthened to allow mathematics teachers to share effective strategies and receive constructive feedback.

Furthermore, schools should improve access to vital resources, including textbooks, supplementary learning materials, educational technologies, and classroom facilities. Supported by these resources, teachers can better develop strategies that encourage independent learning, connect mathematics to daily life, and promote active participation in learner-centered activities. To ensure continuous professional growth,

mathematics teachers should be encouraged to pursue graduate studies, attend professional conferences, participate in research, and take on leadership roles.

Finally, future researchers may build upon these efforts by examining other factors related to instructional competency, such as teacher self-efficacy, school climate, instructional leadership, mentoring, and overall student learning outcomes.

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