



DEVELOPING THE CONFIDENCE AND PARTICIPATION OF ALS LEARNERS IN BASIC MATHEMATICS THROUGH FIVE-MINUTE WINDOW CARD ACTIVITIES

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ABSTRACT

Mathematics is an essential subject that helps learners develop problem-solving skills and make practical decisions in everyday life. However, some Alternative Learning System (ALS) learners may experience difficulty participating in Mathematics activities because of limited confidence, fear of making mistakes, or previous negative learning experiences. These challenges may affect their willingness to answer questions, share their solutions, and engage in classroom activities.

This action research aims to explore how five-minute window card activities may help develop the confidence and participation of ALS learners in basic Mathematics. The intervention will involve brief, structured practice using teacher-prepared cards containing basic mathematical operations. The activities will be incorporated into regular numeracy sessions and will provide opportunities for learners to respond, practice, receive feedback, and reflect on their learning experiences in a supportive environment.

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The study will use a qualitative action research approach. Data will be gathered through classroom observations, a teacher's reflective journal, learner reflection sheets, informal interviews, and selected samples of learners' written work. The gathered information will be analyzed thematically to identify patterns relating to confidence, participation, challenges, and learners' perceptions of the intervention.

The findings are expected to provide insights into the usefulness of short, low-cost, and learner-friendly Mathematics activities in supporting ALS learners. The results may guide the improvement of classroom practices and the development of appropriate numeracy interventions for learners with diverse educational backgrounds.

Keywords: *Alternative Learning System, Mathematics, learner confidence, classroom participation, window card activities, qualitative action research*

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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

Introduction

Mathematics plays an important role in everyday life. Individuals use mathematical skills when managing money, purchasing goods, calculating expenses, measuring quantities, and making practical decisions. For this reason, developing basic mathematical skills is an important part of education, including the learning experiences of individuals enrolled in the Alternative Learning System.

The Alternative Learning System provides flexible educational opportunities for learners who cannot fully participate in or complete formal basic education. ALS learners come from different backgrounds and have varied educational experiences, learning needs, responsibilities, and levels of readiness. These differences may influence how they approach Mathematics and participate in learning activities.

Some learners may hesitate to answer mathematical questions because they are afraid of making mistakes or being judged by their classmates. Others may remain quiet during discussions, avoid solving problems in front of others, or depend on the teacher for reassurance before attempting an answer. These behaviors may limit their opportunities to practice and develop confidence in their mathematical abilities.

As an ALS teacher, the researcher recognizes the importance of creating a supportive learning environment where learners feel comfortable attempting mathematical tasks, asking

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questions, and learning from mistakes. Mathematics instruction should not only provide opportunities to acquire computational skills but should also encourage learners to participate actively and believe that they can improve through practice.

One possible classroom strategy is the use of window card activities. In this intervention, window cards are teacher-prepared learning materials that display basic mathematical operations through a designated viewing space or window. The cards allow the teacher to present short problems one at a time while learners think, respond, and discuss their answers.

The proposed intervention will use five-minute window card activities during regular ALS numeracy sessions. The short duration is intended to make the activity manageable, repeatable, and easy to integrate into the teacher's existing schedule. Learners will be encouraged to answer independently, explain their thinking when comfortable, and participate without fear of embarrassment.

The researcher will explore how learners experience these activities and what changes in their confidence and participation may be observed during implementation. Rather than relying on numerical test scores, the study will examine classroom observations, learners' reflections, interview responses, and other qualitative evidence. Through this action research, the researcher hopes to identify practical ways to encourage participation and support a more positive learning experience in Mathematics among ALS learners.

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Statement of the Problem

This action research aims to explore the use of five-minute window card activities in developing the confidence and participation of ALS learners in basic Mathematics.

Specifically, it seeks to answer the following questions:

1. How do ALS learners describe their experiences when participating in five-minute window card activities in Mathematics?
2. What changes in learners' confidence and participation are observed during the implementation of the activities?
3. What challenges do ALS learners encounter when participating in the window card activities?
4. How can the implementation of five-minute window card activities be improved to better support the confidence and participation of ALS learners?

Objectives of the Study

The general objective of this action research is to explore how five-minute window card activities can support the confidence and participation of ALS learners in basic Mathematics.

Specifically, the study aims to:

- Describe learners' experiences in participating in the window card activities.

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- Document observable changes in learners' willingness to answer questions, attempt mathematical tasks, and participate in learning activities.
- Identify learners' difficulties and concerns during the intervention.
- Determine possible improvements to the activities based on learners' feedback and the teacher's reflections.
- Develop practical recommendations for improving Mathematics instruction in the ALS setting.

Significance of the Study

ALS Learners. The study may help create a more supportive learning environment where learners can practice basic mathematical operations, express their ideas, and develop confidence in participating in Mathematics activities.

ALS Teachers. The findings may provide practical insights into using short, low-cost instructional activities to encourage participation and address learners' concerns about Mathematics.

School Administrators and ALS Coordinators. The findings may inform decisions regarding classroom strategies and the development of learner-centered numeracy interventions.

Future Researchers. The study may serve as a reference for further research on confidence, participation, and instructional practices in alternative and flexible learning environments.

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Scope and Delimitation

The study will focus on the experiences, confidence, and classroom participation of selected ALS learners during five-minute window card activities in basic Mathematics.

The intervention will be implemented during regular ALS numeracy sessions at General Pio Del Pilar National High School over an estimated six-week period. The activities will focus on basic addition, subtraction, multiplication, and division, with adjustments based on the learners' needs and readiness.

The study will use qualitative data gathered through classroom observations, a teacher's reflective journal, learner reflections, informal interviews, and selected work samples. The research will not aim to measure the intervention's effectiveness through numerical test scores or statistical comparisons. Instead, it will examine learners' experiences and observable participation behaviors. The findings will be limited to the context and participants of the study and will not automatically apply to all ALS learners.

Definition of Terms

Alternative Learning System (ALS). An educational program that provides an alternative pathway for learners who need flexible opportunities to access basic education.

Basic Mathematics. In this study, the term refers primarily to fundamental mathematical operations, including addition, subtraction, multiplication, and division.

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Confidence. The learners' expressed willingness to attempt mathematical tasks, share answers, ask questions, and continue working despite difficulties.

Participation. The observable involvement of learners in the activities, including attempting answers, responding to prompts, asking for clarification, explaining solutions, and engaging in discussions.

Window Card Activities. Teacher-prepared learning materials containing mathematical problems presented through a designated viewing space or window, allowing learners to respond to short exercises.

Five-Minute Practice. A brief instructional activity conducted for approximately five minutes during regular numeracy sessions

CHAPTER II

REVIEW OF RELATED LITERATURE AND CONCEPTUAL FRAMEWORK

Mathematics Learning and Learner Confidence

Confidence is an important consideration in classroom learning because it may influence whether learners are willing to attempt difficult tasks, ask for assistance, and continue working after making mistakes. Learners who doubt their mathematical abilities may avoid answering questions or participating in discussions. In contrast, supportive learning

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experiences that provide opportunities for practice and constructive feedback may help learners become more willing to engage with mathematical tasks.

Usher and Pajares (2009) investigated the sources of self-efficacy among middle school Mathematics students. Their study examined how experiences and other sources of information contribute to learners' beliefs about their mathematical capabilities. The researchers developed and validated a measure addressing four sources of self-efficacy, providing a foundation for further research on how learners form beliefs about their abilities in Mathematics. However, confidence should not be assumed to improve simply because learners repeatedly answer questions. Their perceptions, responses, and experiences must be examined to understand how they respond to the intervention.

Classroom Participation and Supportive Learning Environments

Classroom participation involves more than providing correct answers. It may include asking questions, attempting solutions, explaining one's thinking, listening to classmates, and requesting clarification. A supportive classroom environment allows learners to participate without fear of humiliation. Teachers can encourage this environment by acknowledging effort, providing constructive feedback, allowing thinking time, and treating mistakes as opportunities for learning.

For ALS learners, whose educational experiences and responsibilities may differ, activities should be accessible, respectful, and responsive to individual learning needs. The proposed window card activities will provide short opportunities for learners to engage with

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basic mathematical problems. Learners will be encouraged to participate at their own pace, and the teacher will avoid using public comparisons that may cause embarrassment.

Short and Repeated Learning Activities

Brief instructional activities can be integrated into regular lessons without requiring extensive materials or major changes to the existing schedule. Five-minute window card practice is intended to provide a manageable opportunity for learners to engage with mathematical problems regularly. The activity will include opportunities to think, respond, receive feedback, and reflect.

The intervention will not assume that short practice alone guarantees improved confidence. Instead, the researcher will document how learners respond to the activity and identify the conditions that appear to support or hinder their participation.

Window Cards as Instructional Materials

Window cards can serve as simple, reusable instructional materials. They can be prepared from cardboard, folders, or other available materials. A window or viewing space can reveal a mathematical problem while keeping attention focused on the current task.

For this study, the cards will contain basic mathematical operations appropriate to the learners' needs. The teacher will present problems one at a time, provide sufficient thinking time, and invite learners to respond orally, in writing, or through another comfortable response method. The teacher will also provide encouraging feedback and allow learners to correct

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their answers without being ridiculed. These practices are intended to make the activities more welcoming and participatory.

Synthesis of the Reviewed Literature

The literature suggests that confidence, self-efficacy, opportunities for practice, and supportive classroom interactions are relevant considerations in learning Mathematics. Brief instructional activities may provide opportunities for participation, but their usefulness depends on how they are implemented and how learners experience them.

The present action research will contribute classroom-based evidence by exploring how ALS learners respond to five-minute window card activities. It will examine their experiences, observed participation, challenges, and suggestions for improvement.

Theoretical Framework

This study will be guided by Bandura's theory of self-efficacy (1997). Self-efficacy refers to a person's belief in their ability to perform a particular task. Bandura identifies mastery experiences, vicarious experiences, verbal persuasion, and physiological or emotional states as sources that can influence self-efficacy beliefs.

In the proposed intervention:

Mastery experiences: Learners will have opportunities to attempt manageable mathematical problems and experience completing tasks.

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Verbal encouragement: The teacher will provide supportive feedback and acknowledge learners' efforts.

Emotional experiences: The teacher will aim to create a learning environment where mistakes are treated respectfully and learners are not pressured to respond before they are ready.

Peer experiences: When appropriate, learners may observe classmates demonstrating problem-solving strategies and encouraging one another.

The theory will guide the interpretation of learners' experiences. It will not be used to assume in advance that their confidence will improve.

Conceptual Framework

The study will follow an intervention-and-reflection process.

Input

The study identified concerns related to learners' confidence and participation in basic mathematics. To address these concerns, window cards containing basic mathematical operations were prepared and used as learning materials. Supportive teaching strategies were implemented to encourage learners to participate, attempt mathematical problems, and express their answers without fear of making mistakes. Learner reflections and teacher

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observations were also gathered to understand the learners' experiences, responses, and

changes in confidence and participation throughout the intervention

Process

The intervention began with the introduction of five-minute window card activities designed to encourage ALS learners to engage in basic mathematical operations in a supportive learning environment. The activities were implemented regularly during numeracy sessions, while the teacher observed learners' participation, responses, and willingness to attempt mathematical problems. Learner reflections and interview responses were collected to gain insights into their experiences and perceptions of the activities. The gathered qualitative data were analyzed thematically to identify common patterns and emerging themes related to learners' confidence and participation. Based on the findings and the teacher's reflections, the intervention was refined to better address learners' needs and improve their engagement in basic mathematics.

Expected outcome

The study is expected to provide a clearer understanding of how ALS learners experience the five-minute window card activities in learning basic mathematics. It also aims to identify teaching practices that may help support learners' confidence and encourage active participation during numeracy sessions. Furthermore, the findings may provide recommendations for improving Mathematics instruction in the ALS setting, particularly in creating a supportive and engaging learning environment. These expected outcomes serve as

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areas for investigation and are not considered guaranteed results, as the actual findings will depend on the learners' experiences and the evidence gathered throughout the implementation of the intervention.

CHAPTER III METHODOLOGY

Research Design

This study will use a qualitative action research design. This approach is appropriate because the researcher intends to understand learners' experiences and make improvements to an existing teaching practice. Action research involves identifying a classroom concern, planning an intervention, implementing the intervention, observing what happens, and reflecting on the results to determine appropriate next steps.

The study will follow the cycle of planning, action, observation, and reflection. The researcher will document the implementation of the window card activities and use the collected information to identify possible improvements. A qualitative approach will be used to understand the learners' perspectives and observed participation without relying on numerical test scores or statistical analysis.

Research Locale

The study will be conducted at General Pio Del Pilar National High School, under the Alternative Learning System program of the Schools Division Office of Makati. The site will be

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selected based on the researcher's teaching assignment and the presence of ALS learners who participate in basic Mathematics or numeracy sessions.

Research Participants

The participants will be selected ALS learners enrolled in the researcher's numeracy sessions who are willing and eligible to participate in the study. Purposive sampling will be used because the research focuses on learners who can provide relevant experiences regarding the window card intervention.

The final participants will be determined based on the class context, applicable research requirements, and the availability of informed consent or assent as appropriate. Participation in interviews or the use of identifiable learner information will require appropriate consent. Declining to participate in the research will not affect learners' access to regular instruction.

Research Intervention

The intervention will consist of five-minute window card activities integrated into regular Mathematics sessions over approximately six weeks. The activities will focus on basic mathematical operations and will be adjusted according to learners' needs. The primary purpose will be to create regular opportunities for learners to participate in mathematical tasks within a supportive classroom environment.

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Implementation Procedure

Phase 1: Planning and Preparation

The researcher will identify the participation concerns observed during Mathematics sessions and prepare the window cards. The cards will contain basic operations appropriate to the learners' current learning needs.

The researcher will also prepare an observation guide, reflection prompts, and interview questions.

Phase 2: Initial Observation

Before implementing the intervention, the researcher will observe the learners during regular Mathematics activities. The observations will focus on how learners respond to questions, attempt mathematical tasks, ask for help, and participate in discussions.

The researcher will record observations in a reflective journal without assigning numerical confidence ratings or participation scores.

Phase 3: Implementation

The researcher will conduct the five-minute window card activities during regular numeracy sessions.

A typical session will follow this procedure:

- **Introduction:** The teacher presents the window card and explains the task.

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- **Thinking time:** Learners are given time to consider the mathematical problem.
- **Response:** Learners may answer orally, write their responses, or explain their thinking when comfortable.
- **Feedback:** The teacher provides constructive feedback and guides learners through corrections.
- **Reflection:** Learners may share a brief comment about the activity or describe any difficulty they encountered.

Learners will not be publicly ranked according to speed or accuracy. The emphasis will be on participation, effort, and willingness to attempt the tasks.

Phase 4: Ongoing Observation and Reflection

Throughout the implementation, the researcher will record observations regarding learner participation, confidence-related behaviors, difficulties, and responses to feedback. Short learner reflections and informal interviews will be conducted at appropriate times. The researcher will also record any adjustments made to the activities and the reasons for these adjustments.

Phase 5: Evaluation and Refinement

At the end of the intervention, the researcher will conduct follow-up interviews or reflection activities to understand how learners experienced the window cards. The researcher

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will compare the initial and later qualitative observations to identify possible changes in participation and confidence-related behaviors.

The findings will be used to determine which aspects of the intervention should be retained, modified, or improved.

Data-Gathering Methods

The study will use the following qualitative data-gathering methods.

Classroom Observation- The researcher will observe how learners respond to the activities. Relevant observations may include willingness to attempt answers, requests for assistance, participation in discussions, responses to mistakes, and interactions with classmates.

Observations will be recorded descriptively rather than converted into numerical scores.

Teacher's Reflective Journal - The researcher will maintain a journal documenting the implementation of the activities, classroom observations, challenges, teaching adjustments, and reflections on the learning process. The journal will help the researcher examine personal assumptions and consider alternative explanations for observed changes.

Learner Reflection Sheets - Learners will be invited to express their experiences using short written responses or oral reflections. Questions will be written in simple language appropriate to their literacy levels. Learners may choose an oral response if writing is difficult or uncomfortable.

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Informal Interviews - Short, semi-structured interviews will be conducted with consenting participants to explore their experiences before, during, and after the intervention.

The interviews will focus on learners' feelings about answering Mathematics questions, their experiences using window cards, and suggestions for improving the activities.

Learners' Work Samples - Selected work samples may be examined to understand the kinds of mathematical tasks learners attempt and the strategies they use.

The samples will be interpreted qualitatively. They will not be used to calculate numerical performance scores for the study.

Data Analysis - The study will use thematic analysis to identify recurring patterns and meaningful ideas in the collected information.

The process will involve the following steps:

Familiarization with the data. The researcher will read observation notes, interview responses, journal entries, and learner reflections repeatedly to understand the information.

Initial coding. Meaningful statements and observations will be identified and labeled. Possible codes include willingness to answer, fear of mistakes, requesting assistance, persistence, enjoyment, and peer support.

Identifying themes. Related codes will be grouped into broader themes that describe learners' experiences and observed participation.

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Reviewing themes. The researcher will examine whether the themes accurately reflect the collected information and whether there are differences or contradictory experiences among learners.

Interpretation. The themes will be interpreted in relation to the research questions and the theoretical framework.

Reflection and action. The researcher will use the findings to identify improvements to the window card activities and regular Mathematics instruction. Potential themes will not be treated as actual findings until they are supported by collected data.

Trustworthiness of the Study

To strengthen the credibility of the findings, the researcher will use the following practices:

Triangulation. Information from observations, learner reflections, interviews, and the teacher's journal will be compared to identify areas of agreement and difference.

Member checking. When appropriate, the researcher will ask participants to clarify whether the researcher's summary accurately represents their experiences.

Reflexivity. The researcher will reflect on personal expectations and the possibility that being both teacher and researcher may influence observations or learner responses.

Documentation. The researcher will maintain clear records of the intervention, data-gathering procedures, coding decisions, and changes made during implementation.

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Attention to differing experiences. The researcher will document not only positive experiences but also difficulties, lack of change, and negative or mixed responses.

Ethical Considerations

The study will follow applicable school and Department of Education research requirements and obtain the necessary approvals before implementation. Participants will be informed about the purpose of the study, the activities involved, the information to be collected, and how the findings will be used.

Participation in interviews and the use of identifiable information will be voluntary and subject to appropriate informed consent and, where applicable, assent and parental or guardian permission.

The researcher will protect participants' privacy by using pseudonyms or participant codes in research notes and reports. Identifying details will be removed from quoted responses and work samples.

Learners will be informed that they may decline to answer questions or withdraw from the research component without penalty. Their decision will not affect their grades, access to ALS services, or relationship with the teacher.

Because the researcher will also be the learners' teacher, care will be taken to avoid making participation feel compulsory. The activities will be implemented as appropriate

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instructional practices, while participation in research interviews and the use of personal responses will follow the required consent procedures.

The researcher will store research records securely and retain or dispose of them according to applicable institutional policies.

IMPLEMENTATION PLAN AND MONITORING

Timeline of the study

Activity	Schedule
Identification of the classroom concern	Week 1
Preparation of window cards and research tools	Week 1
Initial classroom observation	Week 1
Implementation of window card activities	Weeks 2–5
Ongoing observations and learner reflections	Weeks 2–5
Follow-up interviews and final reflections	Week 6
Qualitative data analysis	Week 6
Preparation of the research report	After data analysis

Monitoring Plan

The researcher will monitor the implementation through descriptive observation notes and reflective records.

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The following areas will guide the monitoring process:

- Learners' willingness to attempt mathematical problems
- Learners' comfort in answering questions or asking for assistance
- Responses to mistakes and teacher feedback
- Participation in individual or collaborative tasks
- Learners' descriptions of the usefulness and difficulty of the activities
- Challenges encountered during implementation
- Adjustments needed to improve the activities

The monitoring process will not require numerical ratings, rankings, or statistical comparisons.

The study provided a clearer understanding of how ALS learners experienced the five-minute window card activities during Mathematics sessions. The intervention allowed the researcher to identify teaching practices that encouraged learners to attempt mathematical tasks, express their ideas, ask for help, and respond to feedback. The findings also highlighted challenges that affected learners' participation, including anxiety, difficulty understanding instructions, limited foundational knowledge, and discomfort when answering in front of others. Through learner reflections, interviews, and teacher observations, the researcher gained insights into the learners' experiences and identified ways to make Mathematics instruction more supportive, engaging, and responsive to their needs in the ALS setting.

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CHAPTER IV

RESULTS, DISCUSSION, AND REFLECTION

Learners' Experiences with Window Card Activities

The implementation of the five-minute window card activities provided ALS learners with opportunities to engage in basic mathematical operations through short and manageable learning tasks. The activities were incorporated into Mathematics sessions to encourage learners to participate, practice solving problems, and express their answers in a supportive learning environment.

The activities allowed the researcher to observe how learners responded to the presentation of mathematical questions and how they approached the tasks given to them. Through classroom observations, learner reflections, and interview responses, the researcher gained insights into the learners' experiences during the intervention. The use of window cards also provided an alternative way of presenting mathematical exercises, making the activities more focused and structured within the limited time available for numeracy instruction.

The implementation highlighted the importance of providing learners with opportunities to practice basic mathematical operations without placing unnecessary pressure on them. The activities also emphasized the role of supportive teacher guidance in helping learners engage with mathematical tasks. These experiences provided a basis for understanding how short, structured activities could be incorporated into ALS Mathematics instruction.

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Observed Changes in Confidence and Participation

Throughout the implementation of the five-minute window card activities, the researcher observed learners' responses to the mathematical tasks and their willingness to participate during Mathematics sessions. Attention was given to learners' attempts to answer questions, express their ideas, seek assistance, and respond to teacher feedback.

The intervention provided opportunities to observe learner participation in a more structured manner. Rather than focusing solely on whether answers were correct or incorrect, the researcher also considered learners' willingness to attempt the activities and engage in the learning process. This approach recognized that participation in Mathematics involved not only providing correct answers but also making an effort, asking questions, and seeking clarification when necessary.

The classroom observations and learner responses provided insights into the factors that influenced participation. The experience reinforced the importance of creating a learning environment where learners could practice mathematical skills, receive guidance, and develop greater willingness to engage in classroom activities. However, any conclusions regarding changes in confidence were based on the qualitative evidence collected during the study rather than on assumptions about the effectiveness of the intervention.

Challenges Encountered by Learners

The implementation of the intervention also highlighted the need to consider the different learning needs and experiences of ALS learners. Learners may have varied levels of

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familiarity with basic mathematical operations, which can influence how they approach mathematical questions and respond during activities. Differences in foundational knowledge and learning pace may affect the amount of guidance learners need when completing tasks.

Another important consideration was the emotional aspect of Mathematics learning. Some learners may experience hesitation when answering questions, particularly when they are uncertain about their responses. Such situations emphasize the importance of providing encouragement, clear instructions, sufficient practice, and constructive feedback.

The five-minute structure also required careful selection of mathematical problems to ensure that the activities remained manageable and appropriate for the learners' abilities. The experience highlighted the importance of adjusting the difficulty of the questions, explaining instructions clearly, and allowing additional support when needed. These considerations helped the researcher recognize that an effective intervention should remain flexible and responsive to the needs of ALS learners.

Implications for Teaching Practice

The findings and experiences from the implementation of the five-minute window card activities provided insights into possible ways of improving Mathematics instruction in the ALS setting. Short, structured activities may serve as supplementary learning strategies that provide learners with regular opportunities to practice basic mathematical operations without requiring an extended period of classroom time.

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The intervention also emphasized the importance of supportive teaching practices. Clear instructions, encouraging feedback, manageable questions, and opportunities to ask for help can contribute to a classroom environment where learners feel more comfortable engaging in mathematical tasks. Teachers should also consider learners' existing knowledge and provide appropriate assistance based on their individual needs.

Furthermore, the use of window cards may be adapted to different mathematical topics and levels of difficulty. Teachers may prepare activities that progress from simpler to more challenging problems, depending on learners' readiness. Regular observation and learner feedback can help determine which approaches are appropriate and which aspects of the activities require improvement.

For ALS Mathematics instruction, the experience reinforced the value of combining basic skills practice with strategies that encourage participation and learner engagement. The intervention may therefore serve as a practical supplementary approach, provided that the activities are adapted to the learners' needs and evaluated through continued classroom observation.

Researcher's Reflection

Implementing the five-minute window card activities provided the researcher with an opportunity to reflect on the importance of confidence and participation in learning basic mathematics. The experience reinforced the understanding that Mathematics instruction should not focus exclusively on correct answers but should also provide learners with

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opportunities to attempt problems, express their thinking, ask questions, and learn from mistakes.

The intervention encouraged the researcher to pay closer attention to learners' responses during Mathematics sessions. It highlighted the importance of observing how learners approached tasks, identifying the assistance they needed, and considering the factors that might influence their willingness to participate. These observations emphasized the need for patience, encouragement, and flexibility when working with ALS learners who have different educational experiences and learning needs.

The experience also demonstrated the importance of selecting activities that are manageable, purposeful, and appropriate for the available instructional time. Short activities can provide opportunities for practice, but their implementation requires careful planning, clear instructions, and sensitivity to learners' individual circumstances. Teacher reflection and learner feedback remain essential in determining how such activities can be improved.

Overall, the conduct of the study strengthened the researcher's appreciation of the importance of creating a supportive Mathematics learning environment in the ALS setting. The experience provided a basis for refining instructional practices and exploring additional strategies that may encourage learners to participate more actively in basic mathematics. It also reinforced the value of using qualitative evidence to understand learners' experiences and guide decisions about future teaching practices.

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CHAPTER V

CONCLUSION AND RECOMMENDATIONS

The study explored the experiences of ALS learners during the implementation of five-minute window card activities in basic Mathematics, with particular attention to their confidence and participation. The intervention provided opportunities for learners to engage in basic mathematical operations through short, structured activities incorporated into their Mathematics sessions. The study also emphasized the importance of understanding learners' responses, challenges, and learning needs when implementing instructional strategies in the ALS setting.

The conduct of the study highlighted the value of providing manageable mathematical tasks, clear instructions, supportive teacher guidance, and opportunities for regular practice. These practices may help create a learning environment where learners feel more comfortable attempting mathematical problems, expressing their ideas, asking for assistance, and responding to feedback. The use of window cards also offered a practical way to incorporate brief mathematics activities into numeracy sessions.

The study further emphasized the importance of considering the challenges ALS learners may encounter, including differences in foundational mathematical knowledge, learning pace, and willingness to participate. These considerations reinforced the need for flexible instruction and appropriate teacher support to address learners' individual needs.

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Overall, the five-minute window card activities served as a practical supplementary strategy for engaging ALS learners in basic Mathematics. The experience provided the researcher with insights into the importance of combining mathematical practice with supportive teaching approaches that recognize learners' emotional and instructional needs. The study also reinforced the value of using learner reflections, interviews, and classroom observations to understand how learners experience instructional interventions.

The conclusions regarding learners' confidence and participation were based on the qualitative evidence gathered during the study. Learners' reported experiences were considered alongside the researcher's observations to develop a contextual understanding of the intervention. The findings may inform future Mathematics instruction in the ALS setting, although further implementation and continued observation may be necessary to understand the usefulness of the activities across different learners and learning contexts.

RECOMMENDATIONS

Based on the conduct of the study and the insights gained from implementing the five-minute window card activities, the following recommendations are presented to support the teaching and learning of basic Mathematics in the ALS setting.

1. **Continue and improve the use of five-minute window card activities.**

Teachers may continue using these activities as supplementary learning materials during Mathematics sessions. The activities should be reviewed and modified according to learners' needs, responses, and levels of readiness.

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- *****
2. **Provide supportive feedback and sufficient response time.** Teachers are encouraged to create a learning environment where learners feel comfortable attempting mathematical problems, asking questions, and learning from their mistakes. Constructive feedback and patience may help encourage learners to participate in classroom activities.
 3. **Provide varied opportunities for participation.** Teachers may allow learners to respond through oral answers, written responses, individual exercises, or guided practice. Providing different response options can help accommodate learners with varying levels of confidence and comfort.
 4. **Adjust the difficulty of mathematical activities.** Window card questions should be appropriate to learners' existing knowledge and skills. Teachers may begin with basic mathematical operations and gradually introduce more challenging problems as learners become familiar with the activities.
 5. **Use learner feedback to improve instructional materials.** Learners' reflections and responses should be considered when revising the design, instructions, and implementation of window card activities. Regular teacher observations may also help identify areas that require additional support or modification.
 6. **Explore additional strategies for supporting ALS learners.** Future classroom-based research may investigate other instructional approaches that encourage confidence, participation, and engagement in Mathematics. Further studies may also

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examine the use of similar short activities across different mathematical topics and
ALS learning contexts.

7. **Continue reflective teaching and monitoring.** ALS teachers are encouraged to document learner responses, participation, and challenges during Mathematics sessions. These records can help teachers make informed instructional decisions and ensure that learning activities remain appropriate and responsive to learners' needs.

These recommendations aim to support the continued improvement of Mathematics instruction in the ALS setting. Their application should be guided by the actual findings of the study, learners' individual needs, and ongoing classroom observations.

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REFERENCES

Usher, E. L., & Pajares, F. (2009). Sources of self-efficacy in mathematics: A validation study.

Contemporary Educational Psychology

Department of Education. (2017). *DepEd Order No. 16, s. 2017: Research management guidelines*. Department of Education.

Department of Education. (2022). *Basic education research agenda*. Department of Education.

[Verify the applicable issuance and current requirements with your SDO before finalizing the reference.]

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82–91.

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APPENDICES

Appendix A. Classroom Observation Guide

Research Title: Developing the Confidence and Participation of ALS Learners in Basic Mathematics Through Five-Minute Window Card Activities

Instructions: Record descriptive observations during the activities. Avoid assigning numerical ratings or making unsupported judgments about learners' abilities.

Observation prompts:

1. How do learners respond when the teacher presents a window card?
2. What do learners do when they are unsure of an answer?
3. Do learners attempt to solve the problem, ask for assistance, or wait for others?
4. How do learners react when they make a mistake?
5. What kinds of teacher feedback appear to encourage participation?
6. What changes, if any, are observed across different sessions?
7. Are there learners who remain hesitant despite the intervention?
8. What classroom conditions appear to help or hinder participation?

Reflective notes:

Date and session: _____

Description of the activity: _____

Observed learner responses: _____

Challenges encountered: _____

Teacher's reflection and possible adjustments: _____

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Appendix B. Learner Reflection Guide

The following questions may be asked orally or in writing. The researcher should use language appropriate to the learners' reading levels.

1. How did you feel while answering the window card questions?
2. What did you like or dislike about the activity?
3. Was there anything that made it difficult for you to answer?
4. What did you do when you did not know the answer?
5. Did you feel comfortable asking for help? Why or why not?
6. What would you like your teacher to change about the activity?
7. What advice would you give to help other learners feel comfortable participating in Mathematics?

Learners may skip any question they do not wish to answer.

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Appendix C. Semi-Structured Interview Guide

Opening statement:

Thank you for agreeing to share your experiences. I would like to understand how you feel about the five-minute window card activities in Mathematics. There are no right or wrong answers. You may decline to answer any question, and your responses will be treated confidentially according to the study's approved procedures.

Interview questions:

1. Can you describe your experience using window cards during Mathematics sessions?
2. How do you usually feel when asked to solve a mathematical problem in class?
3. Has anything about the activity changed the way you participate? Please explain.
4. What makes it easier or more difficult for you to answer questions?
5. How do you feel when you make a mistake during the activity?
6. What kind of help or encouragement do you find useful?
7. What changes would make the activity more comfortable or helpful for you?

Closing question:

Is there anything else you would like to share about your experience learning Mathematics through window cards?

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Appendix D. Sample Teacher's Reflective Journal

Date: _____

Activity implemented: _____

What happened during the activity?

Describe the learners' responses, interactions, and participation.

What appeared to encourage participation?

Describe the teaching strategies, materials, or classroom conditions that seemed helpful.

What difficulties were observed?

Describe challenges without labeling or embarrassing individual learners.

What did the learners communicate about the activity?

Record relevant comments or reflections without unnecessary identifying details.

What did I learn as a teacher?

Reflect on assumptions, observations, and possible explanations.

What will I change in the next session?

Describe the adjustments to the activity and the reason for making them.

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Appendix E. Proposed Window Card Activity Format

Skill: Basic mathematical operations

Duration: Approximately five minutes

Materials: Window cards, paper, and writing materials

Procedure:

1. Present a mathematical operation through the window card.
2. Allow learners time to think and attempt a response.
3. Invite learners to share their answers voluntarily.
4. Provide constructive feedback and demonstrate the solution when needed.
5. Invite learners to reflect briefly on the activity.
- 6.

Teaching reminder: *Do not require learners to answer publicly if they are uncomfortable. Provide alternative response methods and emphasize that making mistakes is part of learning.*

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