# MINI PLAY STORE: AVENUE FOR GRADE-I PUPILS IN RECOGNIZING NUMBERS

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# Mini Play Store: Avenue for Grade-I Pupils in Recognizing Numbers

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## Abstract

The game-based Mini Play Store helps bridge the gap between our learners affected by the global COVID-19 pandemic and any other learning factors that affect their educational learning. This study involves using simulation through buy and sell to make the teaching and learning process more meaningful, specifically in the area of Mathematics. The Mini Play Store promotes a contemplative way of thinking and produces an active, heedful, non-stressed frame of mind. This study aims to integrate and deepen our Grade-1 learners' performance in numeracy skills through a game-based Mini Play Store to make learning more meaningful and enjoyable. The participants of this study were the 17 Grade-I pupils enrolled in Tuluan Elementary School, Tambulig District, in the division of Zamboanga del Sur, for the School Year 2022-2023. The data for this study was collected through quantitative methods. Weighted mean was used to interpret data gathered through pretest and posttest methods. There is a difference between the pretest mean of 5.53 and the post-test mean of 8.82, which is not likely due to chance. Concisely, this Mini Play Store allows the learners to revamp mastery in the number sense and can inspire real-life schema in entrepreneurship. Thus, teachers are encouraged to create a Mini Play Store in their classrooms to stimulate positive learning outcomes and to escalate or intensify their foundation in a number sense. School administrators may also encourage and inspire teachers to indulge and make learning more purposeful and worthwhile.

**Keywords:** *Mini Play Store; game-based activities; number sense; simulation*

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## Context and Rationale

When Covid-19 spread globally, everyday life came to a standstill. In this unusual scenario, the Department of Education caters to all the possible needs our learners must have, and new normal education now comes into two circles. The fortunate and the unfortunate, those who are fortunate are the ones who have parents at home and can easily give time and effort to teach their children. Those unfortunates are learners who choose to take their education in a modular format, who do not even have internet access, much like a gadget that can connect to it. Numeracy is one of the essential skills a specific individual must have to deal with day-to-day life. Whether we like it or not, teachers' absence can significantly contribute to poor learning habits and styles since their common notion about Mathematics is tedious and difficult. However, there is still a big chance of coping with this problem.

After the pandemic, many learners struggled to recognize and order numbers and money in various forms and contexts. While huge quantities are first represented through approximate representation, the development of number sense starts with accurately representing small numbers (Carey 2003). They can recite the numbers yet cannot identify them one by one. They tend to feel anxious and stressed when dealing with mathematics.

Finlayson (2014) expounds further that if the work is done on building and strengthening the basics of mathematics skills in a learner, then the probability of the development of fear of mathematics will be reduced. According to Greeno (1991), number sense is sometimes described as having strong intuition about numbers and their relationships. It evolves gradually due to experimenting with numbers and seeing them in several settings. Aljojo (2018) restated that it seems promising to develop a game-based learning program that improves young children's mathematical skills.

Integrating the game-based activities, particularly the mini play store, into the teaching-learning task aspires to make vivid connections with every learner. Using the game-based Mini Play Store, learners were able to find creative solutions that actively drove them to accelerate their learning. This study aims to deepen learners' performance in mathematics through game-based learning to elevate the learner's performance not just in the sense of numbers but also in the concept of daily survival by giving examples during the process so that teaching-learning becomes meaningful.

Hence, the researcher conducted research entitled Mini Play Store: Avenue for Grade-I Pupils in Recognizing Numbers. In this study, the researcher utilized the specific game-based Mini Play Store to enhance and strengthen the mastery level on number sense of Grade-I section Crystal pupils of Tuluan Elementary School, Tambulig District for the School Year 2022-2023.

## Innovation, Intervention, and Strategy

The aftermath of COVID-19 pandemic etched a phenomenal change in the limelight of education. Undoubtedly, learners now are primarily poor in concept learning. Thus, it is necessary to strengthen learners' mastery of number sense. According to Bakar and Ismail (2020), based on the constructivist, Vygotsky's social development theory implies that Interaction among students and the development of their metacognitive abilities affect their learning and mastery. The mechanics of the game-based Mini Play Store included numbers, products, prices, and promotions explicitly based on buying and selling based on the market style. The learners' role is either the buyer or the seller. Thus, it connotes trading or entrepreneurship and enhances learning engagement and performance in number sense and mathematical operations.

The gist of playing Mini Play Store is to proclaim the winner. Questions shall be embodied in the game consistent with the lesson objective. Questions must be altered every day depending on the lessons anchored. It shall also be played daily during the application of the lesson and even in remedial sessions.

Concisely, this game-based intervention allows the learners to revamp their mastery of number sense and can stimulate a real-life scenario in marketing. In this distinct study, the efficacy of a mini play store in uplifting performance in the field of Mathematics was explicitly tested in the number sense.

## Action Research Questions

This research focuses on the efficacy of the Mini Play Store game-based activity in the classroom to improve the mastery level of number sense of Grade-I section Crystal pupils of Tuluan Elementary School. Specifically, it seeks to answer the following questions:

1. What is the mastery level on number sense of Grade-I section Crystal pupils before the intervention?
2. As to what extent do the factors affect the mastery level of number sense of Grade-I section Crystal pupils?
3. Is the intervention Mini Play Store effective in the learning process of the Grade-I section Crystal pupils?
4. What is the Grade-I section Crystal pupils' reaction to the intervention in the so-called Mini Play Store?

## Action Research Method

### Research Design

This action research uses mixed method research, the Sequential Explanatory design, which starts with quantitative data and analysis followed by qualitative data collection, which leads to interpretation to be used for the statistical analysis of the mastery of the Grade-I pupils in number sense. The quantitative data on pupils' engagement was analyzed by applying descriptive measures such as mean as a measure of the average of numerical data based on their pretest and post-test results. An interview was utilized to describe the participants' viewpoint about the Mini Play Store intervention.

### Research Participants

The participants of this study, where the data was examined and scrutinized, were extracted from the pretest and post-test of the 17 Grade-I pupils of Tuluan Elementary School for the school year 2022-2023.

**Table 1: Grade 1 Pupils Population**

| | Number of Pupils | Percentage |
|---|---|---|
| Male | 6 | 35.29% |
| Female | 11 | 64.79% |
| Total | 17 | 100% |

Table 1 shows the total population and participants of the Grade-I section Crystal of Tuluan Elementary School. It further shows that the majority of the participants were female which is 64.71% of the total population.

**Research Instruments**

The tool used to assess the mastery level of the preferred participants of Tuluan Elementary School, particularly the 17 Grade 1- Crystal pupils, was the weighted mean method. Thus, the consistency of the results allowed the researcher to identify how much progress these pupils have made regarding number sense. On the other hand, the one-on-one interview with the participants was also formulated to extract the participants' reactions, feedback, and viewpoints on the intervention Mini Play Store.

**Data Gathering Procedure**

To obtain the expected outcome of this study, the proponent crafted a research proposal that the District Research Committee checked. Subsequently, the researcher wrote a letter of intent to the Division Research Committee to get permission and look for technical assistance. Afterward, the gathering followed approval from the division research committee. After the approval, it is well expounded to the respondents and the parents' consent. The teacher-proponent and the HRPTA inflicted a memorandum of agreement for a better implementation of the study. All the data that was collected was solely used for the study.

The proponent conducted a pretest and post-test, letting the respondents play the application part of the lesson and even on remedial time. The same procedure was made consecutively. This intervening game surged one month, establishing and developing their potential to understand the lessons. The qualitative approach in this study was correlated eminently with the conduct of the one-on-one interview, which was used to gather in-depth interpretation of their feedback and reactions to the given intervention. The interview aids or supports the participants' point of view more vividly and clearly so that the data needed will be responded to appropriately.

**Data Analysis**

The scores from each participant were scrutinized and checked thoroughly. After such, the scores were recorded and evaluated after administering the pretest and post-test to determine whether there was significant improvement between the tests. The scores were presented in a table to show comparison. The quantitative data on students' engagement was analyzed by applying statistical measures such as mean as a measure of average. A validated percentage of rating scale adapted from Meidiastuti and Safitri (2021) is also used for the quantitative result to distinguish the level of effectiveness of the intervention in the learning process of the participants.

Below is the percentage scale used in the data interpretation.

| Percentage of Rating Scale | Rating Quality |
|---|---|
| 90-100 % | Very effective |
| 72-89 % | Effective |
| 54-71 % | Sufficiently Effective |
| 36-53 % | Not effective |
| 18-35 % | Less than effective |
| 0-17 % | Very not effective |

The interview served as the qualitative evidence was being organized properly to the responses of the participants and it shall be the basis of the descriptive interpretations. Moreover, the thematic analysis was used to describe how the respondents were actively engaging in the intervention.

## Results and Discussion

Mastery of number sense helps the pupils manipulate numbers to make computations easier and gives them the courage to be flexible in their approach to dealing with number sense.

Nonetheless, instilling optimistic intervention could be a great avenue to enhance their mastery skills. Thus, after thoroughly assessing this study, the following data are carefully tabulated to answer the inquest.

**Initial Mastery Level on Number Sense of Grade 1.** Table 1 indicates that only half of the class passed the pretest given by the teacher, MPS result was 55.3% only. The table further implies that most participants have difficulty counting quantities and identifying numbers.

**Table 1: Pretest Result**

| PUPIL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *A* | ☑ | ☑ | | | ☑ | | ☑ | ☑ | | | *5* |
| *B* | | ☑ | ☑ | | ☑ | ☑ | | | | | *4* |
| *C* | ☑ | ☑ | | | ☑ | | ☑ | ☑ | | ☑ | *6* |
| *D* | ☑ | ☑ | ☑ | | ☑ | ☑ | | ☑ | ☑ | ☑ | *8* |
| *E* | ☑ | ☑ | ☑ | ☑ | | | ☑ | ☑ | | ☑ | *7* |
| *F* | | | ☑ | | ☑ | | | ☑ | | ☑ | *4* |
| *G* | ☑ | ☑ | ☑ | | | ☑ | | | | ☑ | *5* |
| *H* | ☑ | | ☑ | ☑ | | | | ☑ | ☑ | ☑ | *6* |
| *I* | ☑ | ☑ | ☑ | | | ☑ | ☑ | | ☑ | ☑ | *7* |
| *J* | ☑ | ☑ | ☑ | | ☑ | | ☑ | ☑ | ☑ | ☑ | *8* |
| *K* | ☑ | | ☑ | | ☑ | | | | | ☑ | *4* |
| *L* | ☑ | ☑ | | ☑ | | | ☑ | | | | *4* |
| *M* | ☑ | | ☑ | | | | | | | ☑ | *3* |
| *N* | ☑ | | ☑ | | ☑ | | | ☑ | | ☑ | *5* |
| *O* | ☑ | ☑ | | ☑ | ☑ | | | | | ☑ | *5* |
| *P* | ☑ | ☑ | ☑ | | ☑ | | | ☑ | | ☑ | *6* |
| *Q* | ☑ | ☑ | ☑ | | ☑ | ☑ | ☑ | | | ☑ | *7* |
| ***TOTAL*** | ***15*** | ***12*** | ***13*** | ***4*** | ***11*** | ***5*** | ***7*** | ***9*** | ***4*** | ***14*** | ***94*** |
| | | | | | | | | | | ***M*** | ***5.53*** |
| | | | | | | | | | | ***MPS*** | ***55.3%*** |

**Factors Affecting the Mastery Level of the Pupils in Number Sense.** Foundational skills play a vital role in the building blocks of early or beginning concepts of a child, particularly in print concepts, phonological awareness, words and number recognition, and even fluency.

The research found the need to identify some factors affecting the mastery level of pupils in the number sense in order to aid or assist its dilemma. Presented in Table 2 below was the level of foundational skills of Grade-I participants based on their Early Childhood Development (ECD) results in kindergarten.

**Table 2: ECD Foundational Skills of Participants**

| Level | No. of Pupils | Percentage |
|---|---|---|
| Highly Advance Development (130-above) | 0 | 0 |
| Slightly Advance Development (120-129) | 0 | 0 |
| Average Development (80-119) | 5 | 29.41% |
| Slight Delayed Development (70-79) | 8 | 47.06% |
| Delayed Development (69 and below) | 4 | 23.53% |
| Total | 17 | 100% |

Table 2 signifies that a greater number of pupils have slightly delayed development, which resulted in 47.06%, based on the results reflected. Only 29.41% of the pupils had average growth, and 23.53% had delayed development. This proved that pupils needed help with their basic skills and development. This supports Cragg and Gilmore (2014) reiterating that a number of social, educational, and individual elements are necessary for the successful learning and performance of mathematics. Thus, the diverse differences of our pupils must be understood, and it may challenge every teacher to change teaching learning strategies and approaches to cater to the pupils' needs.

**Table 3: Percentage Distribution of Educational Attainment of Parents**

| Educational Attainment | Parents | | | |
|---|---|---|---|---|
| | Father | Percentage | Mother | Percentage |
| College Graduate | 1 | 5.88% | 1 | 5.88% |
| College Level | 0 | 0 | 2 | 11.76% |
| SH/HS Graduate | 1 | 5.88% | 1 | 5.88% |
| High School Level | 3 | 17.65% | 2 | 11.76% |
| Elementary Graduate | 3 | 17.65% | 1 | 5.88% |
| Elementary Level | 9 | 52.94% | 10 | 58.82% |
| Total | 17 | 100% | 17 | 100% |

The table above shows the percentage distribution of parents' educational attainment results reflected on the ECD and Basic Education Enrollment Form. This illustrates that most parents were under the elementary level, 52.94% were fathers and 58.82% were mothers. Hence, it is difficult for the parents to assist the pupils in their schooling.

**Table 4: Percentage Distribution of Parents' Occupation**

| Parents Occupation | Father | Percentage | Mother | Percentage |
|---|---|---|---|---|
| Professional | 1 | 5.88% | 1 | 5.88% |
| Farming | 14 | 82.35% | 14 | 82.35% |
| Carpentry | 2 | 11.76% | 0 | 0 |
| House Helper | 0 | 0 | 2 | 11.76% |
| Total | 17 | 100 | 17 | 100 |

Table 4 revealed that most of the parents were farmers, comprising 82.35% of the total population of parents. This implies that parents were not into teaching preferences, which could mean they did not have enough time to facilitate their children and that

sometimes children helped their parents to supplement their meager earnings. Indeed, this was true, according to Das and Sinha (2017), as they stated that the socioeconomic status of parents, education, and income affect children's performance in school. Vellymalay (2012) declares that socioeconomic status influences parental involvement and the student's achievement.

**Absenteeism**

Wadesango and Machingambi (2011) expound that the dynamic teaching-learning environment is disrupted by absenteeism. The same study by Rafa (2017) discusses how persistent absences can have an impact on a student's academic performance and serve as a critical early warning indicator of a dropout risk.

**Table 5: Percentage of Absenteeism in Grade-I Crystal**

| Month | No. of Days | Male | Female | Total |
|---|---|---|---|---|
| August | 7 | 10.20% | 16.33% | 26.53% |
| September | 22 | 12.34% | 13.63% | 25.97% |
| October | 21 | 14.29% | 17.32% | 31.61% |
| November | 19 | 20.30% | 14.35% | 34.65% |
| December | 11 | 19.48% | 18.18% | 37.66% |
| January | 20 | 21.43% | 20.46% | 41.89% |
| February | 14 | 25.51% | 16.23% | 41.74% |
| March | 22 | 19.48% | 19.83% | 39.31% |
| April | 17.5 | 20.40% | 15.58% | 35.98% |
| May | 22 | 25.32% | 21.49% | 46.81% |
| June | 21 | 20.40% | 21.65% | 42.05% |
| July | 5 | 8.57% | 9.09% | 17.66% |

Table 5 confirmed that absenteeism is rampant in the participants affecting mastery level of numeracy. Indeed, absenteeism has a great impact on dropouts. Based on the data shown in Table 5 pupils who had the highest rates of absenteeism in the months of January up to June and the month of May got the highest percentage of absenteeism which is 46.81% and those who contributed more absences are the pupils coming from low-income households, when parents were out farming the pupils were forced to be absent to do the household chores or even help their parents in farming just to augment their meager earnings. Welsh (2018) supports this by stating that the common reasons for students' mobility and absenteeism suggest that social and economic conditions play a significant role. Poverty, in particular, is a major contributing factor to students missing or changing schools.

**Less Exposure to Gadgets**

Information and Communication Technology, or ICT, is now the most dependable tool to cater to the educational foundation of pupils. Integrating ICT at schools promotes easy access to level-up education. Thus, these new high-tech tools, such as TV, computers, and cell phones, can ignite a technology-driven education. Nyarko and Karinki (2019) state that e-learning platforms are beneficial. Based on previous tables shown, it signifies that parents' income cannot suffice their basic commodities much more than the gadgets in rural areas, just like Brgy. Tuluan does not have easy access to internet connectivity and signals. Thus, these pupils are less exposed to gadgets or ICT education tools.

**Table 6: Percentage Distribution of Online and Modular Learning**

| | No. of Pupils | Online learning | Percentage | Modular learning | Percentage |
|---|---|---|---|---|---|
| Male | 6 | 0 | 0 | 6 | 35.29% |
| Female | 11 | 0 | 0 | 11 | 64.71% |
| Total | 17 | 0 | 0 | 17 | 100% |

Data shows that 100% of parents choose modular learning rather than online learning due to the inability of gadgets and internet access in the location. Hariadi and Simanjuntak (2020) reiterated that e-learning is a learner-oriented method that strongly emphasizes the development of learners' knowledge and abilities.

**The Effectiveness of the Intervention in the Learning Process**

**Table 7: Pre-Implementation and Post-Implementation of the Intervention**

| **Pre-Implementation** | | | | | **Post-Implementation** | | | |
|---|---|---|---|---|---|---|---|---|
| | **Male** | **Female** | **Total** | **%** | **Male** | **Female** | **Total** | **%** |
| 0-25% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26-50% | 3 | 6 | 9 | 52.94 | 0 | 0 | 0 | 0 |
| 51-75 % | 1 | 4 | 5 | 35.29 | 0 | 0 | 0 | 0 |
| 76-100% | 2 | 1 | 3 | 17.65 | 6 | 11 | 17 | 100% |
| **Mean** | **5.53** | | | **Remarks** | **Mean** | **8.82** | | **Remarks** |
| **MPS** | **55.3%** | | | **Sufficiently effective** | **MPS** | **88.2 %** | | **Effective** |

*Scale: 0-17% Very not effective; 18-35% Less than effective; 36-53% Not effective; 54-71% Sufficiently effective; 72-89% Effective; 90-100% Very effective*

The utilization of the Mini Play Store has greatly affected the participants' learning process in Mathematics. Table 7 implies that there is a difference between the pre-implementation MPS of 55.3% and the post-implementation MPS of 88.2% which is not likely due to chance. The table shows that the mean of the Pretest minus the post-test equals -3.29. Based on the result the intervention is effective. The post-implementation was significantly greater than the pre-implementation result. This finding confirms a build-up of pupils' learning interest and motivation. Thus, the intervention Mini Play Store was effective, and pupils knew more than they did at the beginning of the instructions.

**Pupils' Reaction to the Intervention Mini Play Store**

These are the few feedback and reactions to the intervention Mini Play Store, which also encouraged the researcher to continue providing interesting interventions to pupils as they develop the right foundation for learning. There is also a need to initiate feedback to improve or address issues related to the intervention to come up with the best result for the learners. Noell and Gansle (2014) said that performance feedback is used in schools to enhance intervention and implementation.

Determining how the intervention Mini Play Store accelerates pupils' learning engagement in recognizing numbers has materialized into 3 themes: Accommodating Classroom Atmosphere, Developing Mastery, and Strengthening Skills.

***Theme 1: Accommodating class atmosphere.*** Most of the respondents reported that were heedful but non-stress frame of mind after having the intervention.

Ofoghi, Sadeghi, & Babaei (2016) explain that there is a positive and direct relationship between the class atmosphere and its factors, quality of learning. The classroom atmosphere helps to reduce anxiety and foster a positive impact on learners.

***a. Facilitating Camaraderie.*** It helps to facilitate a sense of belongingness that creates a positive classroom environment for learners.

*"Yes Ma'am, magsabay dayon mig palit sa akong sood nga klasmit magsabot me unsay among paliton." -pupil # 8*
*-Yes Ma'am, we will go shopping together with my close classmate and we will agree on what to buy. Pupil #8*

*"Daghan kayo mi gusto mag tindera maam, magpulihanay dayon mi kinsay manindera sa tindahan para dili mi mag-away." Pupil #1*
*-We like to be a cashier, so we decided to take turns who will be the cashier so that we won't fight." Pupil #1*

***b. Providing Good vibes.*** They are creating positive emotions and think of good aspects of every situation.

"*Ganahan ko kaayo maam kay daghan ko ug maihap". – pupil #10*
*-"I like it a lot ma'am because I can count a lot now." – pupil #10*

"*Malingaw ko sa baligya-baligya maam kay mura pud ko ug nagpalit sa tindahan nga tinood".- pupil #5*
*-I enjoyed very well ma'am I felt like I am in Juanita Enterprises buying items in the store."- pupil #5*

***c. Developing Team Work.*** Through team work, it makes their progress much easier, and it helps them close together.

*"Yes ma'am! ganahan kaayo ko ug pares-pares mi para ako ang tindera dayon akong klasmet ang tig palit". pupil # 3*
*"Yes, ma'am we like it very much, and we work in pairs so that I'm the seller and my partner is the buyer."- pupil #3*

*"Ganahan kog daghan me maam para maglumbaanay mig ihap ug palit sa mga baligya mura dayon ug Juanita sa Molave". pupil # 9*
*"I like it when we are in a group, it seems that we are always in a hurry to buy items in the mini-store just like in Juanita Enterprises in Molave." -pupil # 9*

This theme result is clearly included in many articles, which consistently ignites that in order to promote a healthy classroom environment, teachers must establish a welcoming environment in the classroom. Suyatno et al. (2019) explain that there's a big impact on classroom atmosphere and the student-teacher relationship toward students' attitudes throughout the process of learning. On this basis, teachers must incorporate an enjoyable setting and materials that promote collaborative tasks to eradicate anxiety.

***Theme 2: Developing Mastery.*** The intervention helps them to have consistent effort and dedication to the learners it also gives a deep understanding of number sense.

a. ***Inviting practice and simulations.*** The intervention promotes critical and evaluative thinking, they contemplated the scenario and this leads to learners' engagement being more fun and interactive.*"*

"*Dali rako nakabalo ug ihap taman 100 maam kay sige kog palit-palit sa tindahan". -pupil # 12*
*"I learn how to count easily and faster until 100 ma'am, I keep buying items from the store as if it is really a real store." – pupil #12*

*"Nalingaw ko sa mga palitonon maam mag sukli2x sab mi ug kwarta mura jud ug tinood".- pupil # 14*
*-"I really enjoyed all the items in the store, I also learned how to change money it seems so real to me."*

b. ***Offering Learning Opportunity.*** It develops collaborative tasks, in which they can reflect or predict outcomes and discuss ideas with peers.

*"Akoang matudloan ug ihap ako ig-agaw maam nga hinay pa moihap, adto dayon mi sa atong tindahan inig paniudto maam."- pupil #17*
*"I can teach my cousin who is slow in counting numbers ma'am, we will go to the store during lunchtime."-pupil # 17*

*"Magsabot me ma'am unsa among paliton sa kwarta para makaigo dli mi mashort dayon ug naay sukli amo dayong iphon ug sakto ba ang sukli." Pupil #7*
*-"We will decide what items we should buy with the money so that we can budget the money, and if there is still change we will count it again to tell if the change is right." Pupil #7*

c. ***Stimulating response.*** They actively respond to various stimuli that lead to a new learning behavior.

*"Mahadlok ko makawala sa mga gamit ma'am, kay basig makulangan na mapasanginlan mi maong amo jud dayong iarrange paghuman ug dula sa tindahan." Pupil # 16*
*" I'm afraid of losing the items ma'am, we might be accused of missing it, so we'll arrange the things right away after playing it." Pupil # 16*

*"Ganahan ko mag arrange sa tindahan maam hinloan para nindot pud diya lantawon ug samot dili gubot." Pupil # 14*
*"I like to arrange and organize the store and keep it clean so that it looks nice and not messy." Pupil # 14*

This finding interprets that there is a need to supply the pleasure of being in a constant state of discovery to drive deeper learning and accustomed to confusion and let the learners develop determination to find their answers. This is true in the study of Alderman (2013) that teacher intervention improves classroom practices and students' motivation to foster a desire to develop mastery and understanding. This concludes that mastery is a special state of mind and it implies a level of practice that approaches almost perfection.

***Theme 3: Developing Skills.*** It helps them to learn new life skills that are responsive to developing skills that promote lifelong learning.

a. **Effective communication.** It develops clear messages with peers, they can easily resolve issues and conflicts connect with each other, and share ideas.

*"Magbahin dayon me sa kwarta ma'am, magsabot mi unsay paliton sa kwarta mag tagsa dayon mig basket sa ako klasmit." -pupil # 13*
*"We divide the money equally ma'am, then we will decide what to buy with the money then we will get the basket." -pupil # 13*

*"Magsabot me ma'am inig paniudto kinsa una motindera ug mopalit para dili nami mag-away." Pupil #2*
*" We will decide and make an agreement during lunchtime who will be the first to sell and buy so that we don't fight anymore." Pupil # 2*

b. ***Time Management.*** It helps to create their own timetable in prioritizing tasks and activities.

*"Recess ma'am kay kapoyan ko molakaw-lakaw sa init diri nlng ko maam mag arrange ug mag ihap2x". - pupil # 17*
*"Recess ma'am, because I'm tired of walking in the scorching heat of the sun, I'll choose to stay and arrange things and count instead".*

*"Ganahan ko inig ka udto maam kay dugay mi maka tinda2x sa tindahan dili nasab mi magkiat sa gawas init kayo."-pupil # 9*
*"I like it when it's noon, it takes us a long time to shop at the store, and we don't need to go outside and play along under the sun". - pupil # 9*

***c. Decision-making.*** It develops their skills in managing decisions, they tend to distinguish between their choice and needs.

*"Ganahan ko mamili sa akong mga paliton ma'am, mag ihap-ihap para mas ma master na nako ang pag-ihap taman sa 100". Pupil # 6*
*"I like to choose the items that I wish to buy ma'am then I will keep on counting numbers up to 100". Pupil #6*

*"Gusto nako mag tindera para ma maayo nako mosukli ug kwarta para inig kadako nako magtukod pud kog tindahan para maka kwarta ko". Pupil # 11*
*"I like to be the seller so that I can master how to change money so that when I grow up, I will build a store too and earn more money". Pupil # 11*

Mattera, Jacob, and Morris (2018), who claim that enhanced math education, especially when aligned across years, can have a good influence on children's math skills, math attitude, and working memory, corroborate this conclusion on improving skills. Therefore, improving learning skills can help students become more creative thinkers, adept problem solvers, and future communicators both in and out of the classroom.

Notwithstanding the circumstances in their lives, the respondents' comments and responses point to places for improvement. After all, an optimistic outlook brings to favorable outcomes. Furthermore, Chen et al. (2018) state that early academic achievement is supported by a good attitude toward math. It is true that a student's attitude toward math is very important to the teaching-learning process. By reducing

math fear, the Mini Play Store intervention fosters positive attitude and rapport-building in students. As a result, students' attitude and performance both significantly improved. According to Cicchino (2015), instruction is combined with realistic game experiences in game-based learning.

## Conclusions and Recommendations

Leroy and Bressoux (2016) expound that pupils' negative attitude toward math seems to be that they frequently suffer from low math self-esteem and do poorly in math. The utilization and intermingling with the Mini Play Store intervention stimulates pupils to think or ponder, and that makes learning more fun and exciting. According to the growth mindset paradigm, there was a noticeable improvement in the students. With the intervention, the pupils felt at ease and comfortable enough with the materials, and their collaboration was evident. Moreover, pupils were now open and resilient to situations brought on by the COVID-19 pandemic as they developed skills and concepts to intensify their foundation in a number sense.

Thus, Mini Play Store, being the intervention proposal in this research, was hoped to be pursued by teachers in the field. Teachers are encouraged to create a Mini Play Store to stimulate positive learning outcomes. School administrators may also encourage their teachers to indulge in this game-based intervention, making learning in Mathematics more purposeful and enjoyable.

**Action Plan**

| ACTIVITY | OBJECTIVES | STRATEGY/ IES | PERSONS RESPONSIBLE | TIMELINE | RESOURCES | SUCCESS INDICATORS |
|---|---|---|---|---|---|---|
| Information Dissemination | To inform and disseminate the result of the action research (AR) to the administrators, teachers, for the adoption of the intervention Mini Play Store in all Grade-I levels. | Inform the administrators and teachers the results of the action research during the Learning Action Cell (LAC) session and during Cluster In-Service Training (INSET). | Researcher Administrators Teachers | September 2023 onward | Completed AR<br><br>Research Output<br><br>Mini Play Store<br><br>PowerPoint | Informed and disseminated the result of the action research |
| Mentoring | To assist the teachers in the crafting, validating, and utilization of the intervention Mini Play Store standards | Conduct a seminar workshop on the creation, validation, and utilization of the intervention Mini Play Store during the LAC session. | Researcher Administrators Teachers | September 2023 onward | Mini Play Store<br><br>PowerPoint<br><br>Validation Tool compliant with DepEd standards | Utilization of the intervention Mini Play Store |
| Instructional Monitoring | To monitor the use of the intervention Mini Play Store among the teachers in the delivery of the instruction | Classes Observation Instructional Monitoring | Administrators Teachers | September 2023 onward | Teacher-Made Learning Materials | Improved learning performance of the students |
| Evaluation | To evaluate the outcome of the intervention Mini Play Store at the school broad level | Gather the needed data for the evaluation | Researcher Administrators Teachers Students Parents | July 2024 | Evaluation Sheet Student's Scores | Sustainability Plan and Re-adoption of the Materials |

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**Financial Report**

| **A. Supplies and Materials** | | | | | |
|---|---|---|---|---|---|
| ITEMS | QTY | UNIT | DESCRIPTION | UNIT PRICE | TOTAL AMOUNT |
| 1 | 3 | Reams | A4 size s20 Bond Paper | 245.00 | 735.00 |
| 2 | 1 | Set | EPSON Computer Ink | 1,000.00 | 1,000.00 |
| 4 | | | Binding Expenses | | 500.00 |
| 5 | 10 | Pcs. | Folders | 20.00 | 200.00 |
| 6 | | | Website Development) | | 3,000.00 |
| | | | Total | | 5,435.00 |
| 7 | | | Contingency Expenses (5%) | | 700.00 |
| **Grand Total** | | | | | **6,135.00** |

## Appendix A

## Research Instrument

### I. Interview Guide Questions

A. Engaging Question

1. How is your learning experience in the intervention Mini Play Store

B. Exploratory Questions

| Explanatory Questions | Sub Questions |
|---|---|
| 2.1 How does the Mini Play Store facilitate your engagement in learning Mathematics? | 2.2 Could you detail the specific feature of the intervention Mini Play Store that gets you engaged in learning Mathematics?<br><br>2.3 Elaborate on how this feature(s) gets you engaged in learning Mathematics lessons. |

C. Exit Question

1. Is there anything else you want to share about your learning engagement experiences in using the intervention Mini Play Store? What is it/are they?

**Appendix B**

**Informed Assent Form**

Title of Study: **Mini Play Store: Avenue for Grade-I Pupils in Recognizing Numbers**

Researcher/s: **Talas, Lovely Yvonne**

**Study Description.** You are being asked to participate in a research study. Before you decide, it is important for you to understand why the research is being done and what your participation will involve. Please read the following information carefully and ask any questions you may have.

**Purpose of the Study.** The purpose of this study is to *bridge the gap between our learners who are affected by the global pandemic Covid-19 and any other learning factors that affect their educational learning*.

**Procedures.** You will be asked to *participate in the study*.

**Risks and Benefits.** There are no known risks associated with participating in this study. The benefits of this study include *improved numeracy*.

**Voluntary Participation.** Your participation in this study is entirely voluntary. You may choose to stop participating at any time without any negative consequences. You may also choose not to answer any specific questions or participate in specific activities that you are uncomfortable with.

**Confidentiality.** Your information will be kept confidential.

**Contact Information.** If you have any questions or concerns about the study, you may contact *Ms. Lovely Yvonne Talas.*

**Assent**

I have read and understand the information provided in this assent form. I have had the opportunity to ask questions and have received satisfactory answers to my questions. I agree to participate in the study.

**Participant:**

| _____ | _____ | _____ |
|---|---|---|
| Name | Signature | Date |

**Parent/Guardian:**

| _____ | _____ | _____ |
|---|---|---|
| Name | Signature | Date |