UNLOCKING DIFFICULTY IN SUBTRACTING NUMBERS OF GRADE 1 LEARNERS THROUGH CULTURAL GAMES

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II. ABSTRACT

This study aims to seek answer in unlocking the difficulty of the lesson, in finding ways to address the least mastered competency M1NS- IIh- 32.4 *(visualizes, represents, subtracts, one -to-two digit numbers with minuends up to 99 with regrouping)* of the seven (7) Grade 1 pupils of Lacaron Elementary School. In analyzing the data, descriptive statistics like the Mean scores was utilized in their pre-test and post-test results. This was accompanied by the in-depth interview and tabular form by getting their most significant and least significant statements or responses. Findings revealed that the pupils who were low performers had significant improvements. Cultural activities may have a favorable impact on students' ability to subtract two-digit numbers using regrouping.

Keywords: *Unlock the difficulty, Subtracting two-digits, Regrouping Skills, Cultural games*

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IV. CONTEXT AND RATIONALE

Globally, Mathematics is a subject that is absolutely necessary for functioning in society. More than that, it should be more enjoyable and learnable, must not be so tedious and boring at times. However, maintaining the attention and interest of pupils in learning this subject area is quite a herculean task.

Difficulty in Mathematics subject can take place at almost any phase of child's life while he/she is in school. Pupils really do find this subject as hard as a stone. That is why more teachers do complain of pupil's very low Mathematical performances. Most teachers experienced the frustration of pupils when it comes to Mathematics lesson, particularly in subtracting two-digit numbers with regrouping. Though enough number of Grade 1 pupils can solve two-digit number without regrouping; however, when it comes to subtracting two-digit numbers with regrouping, they find it difficult as children cannot fully understand abstract concepts.

As a Grade One Teacher, I am very much concerned about the learning performances of my pupils in Mathematics who are entrusted to me this school year. I have experienced a conversation with the parents of my pupil that her child really finds it hard, yet no one, not even her can help the child to understand, as she also finds it hard. In this situation, I was really frustrated by the fact that subtraction of numbers poses a great challenge for elementary school pupils.

For this New Normal setting, our humble institution, the Lacaron Elementary School chooses the Modular Distance Learning (MDL) as the mode of learning in light of the pandemic. Thus this is where printed Self-Learning Modules (SLMs) are given to the learners each week. Consequently, majority of my pupils are part of the Indigenous People (IP) belonging to the Tagaka‿ulo and Manobo tribes. Considering that our Self-Learning Modules (SLMs) are written in Sinugbuhanong Bisaya, they are greatly affected on the style of educational learning process today, as some of them cannot fully understand the concept due to language barrier.

This scenario brings the problem, as every time I distribute their SLMs, I need to explain to them individually in our *Tagaka‿ulo dialect* the mathematical concepts. Yes, they can understand my explanation, but what finds it hard is that they cannot fully visualize the problem. They begin to subtract two-digit numbers incorrectly. Three-fourths were in poor performance based on the provided data from the School Mathematics proficiency level. In their portfolio, I discovered the real results of the summative test, that only few just got the right answers. To improve the performance of the learners to subtract numbers, I need to search for ways to assist at-risk pupils. I will be responsible for the solution that fits the level of learning of my pupils who are struggling with the unique skills. In the Philippine educational setting, the Trends in International Mathematics and Science Study (TIMSS, 2019) showed that the Philippines scored '*significantly lower*' than any other countries that participated in the same test. Only 19% of Filipino pupils were on the *Low* benchmark, which means that they had "*some basic mathematical knowledge*" while sadly, 81% did not even reach this level. This has suggested that pupils who do not have a secure understanding of the steps, they find difficult in subtracting numbers. If

these pupils are not properly supported in order to overcome the challenge of subtraction, they will not be motivated to respond to Math activities, and worse, some of them will stop schooling or they will no longer be in school. This is one of the reasons that I need to find

ways to help the pupils in unlocking their difficulty in subtracting two-digit numbers from regrouping.

V. ACTION RESEARCH QUESTION

The **general purpose of this study** is to seek answer in unlocking the difficulty of the lesson, in finding ways to address the least mastered competency M1NS-IIh- 32.4 *(visualizes, represents, subtracts, one -to-two digit numbers with minuends up to 99 with regrouping).* Thus the researcher aims to answer the question: ***How can I unlock the difficulty of my Grade 1 learners in subtracting two-digit numbers with regrouping skill through cultural games?***

VI. INNOVATION/INTERVENTION/AND STRATEGY

Majority of the Indigenous Peoples (IP) living in the community are constituents of the Tagaka͡ulo and Manobo tribes. They are introduced and taught various cultural games at home by their parents. The common Filipino term for these cultural games is "*laro ng lahi*" or simply means "*games of our culture*". In our community, due to its limited resources and its remoteness, IP learners usually use native materials or instruments as a tool for these games. Cultural games have been the regular, favourite, and popular past

times of our parents and grandparents. They are used to be gathered in the streets or in their neighbourhood just to play these games.

I decided to utilize these games as an intervention to unlock the difficulty in subtracting two-digit numbers with regrouping. This is supported by Anderson (2015), who underscored that some of the most engaging learning in classroom comes playing mathematical games. Concepts fundamental to the lesson are explored while students find playing games both enjoyable. Oftentimes, this creates a more relaxed manner, although that depends on how the students in the class are. More so, most of my pupils can solve two-digits without regrouping, but when it comes to subtracting two-digit numbers with regrouping, they find it difficult. Incorporating this lesson through cultural games will be the best avenue to eliminate the pupils' difficulty in subtracting numbers with regrouping.

Before Cultural Games. The researcher sent a notification letter to the principal for the consultation and the approval to conduct the study. After the consultation, the letter was submitted to the Malita North District Office for explicating the intent of writing the

research as approved by the school head. In order to apply the principle of informed consent, the researcher sought permission from the parents or guardians of the pupils to be subjected for study. Apart from this, a Free, Prior and Informed Consent (FPIC) was sent to the identified participants. This was done in accordance with the Indigenous Peoples Right Act of 1997 (IPRA Law and the Indigenous Cultural Communities (ICC) for the utilization of cultural games in the study. Orientation on the rules and mechanics of the game was made to parents in conducting the games to their children at home; it was clearly explained to them. All the health protocols such as social distancing, wearing of face mask and shields and proper hand washing or sanitation were strictly followed in order to implement the research smoothly.

During Cultural Games.Since the pupils had to stay at their respective homes due to Covid-19 pandemic, their co-players were their family members. Health protocols were observed while they were playing games.

The following cultural games best suited the needs of the learners:

Labay Tunga (Labo-Labo) The objective of this game was to eliminate all players of the opposing team by throwing the ball and hitting the opposing player. The game needed an indigenized ball made of coconut leaves and its rules or mechanics would be as follow:

1. The offense team would try to hit the defense team, while the defense team would try to dodge the ball that the offense team had thrown.
2. A toss coin would decide on which team would play defense and the offense side.
3. Half of the players of the offense team would be standing on the opposite side starting from lines 10 meters away from each other.
4. The defense team should disperse the area between the starting lines.
5. For the first 2 minutes, the offensive team would try to hit the opponent using only one (1) soft ball while the defensive team would try to dodge the

ball; the other ball would be used after the first 2 minutes from each other.

6. A player who has been hit with the ball would be eliminated in the game.
7. A defense may player may choose to catch the ball and would score the second life either on its own or on a teammate who has been eliminated.
8. In an event the defensive player goes beyond the field, one member would be eliminated.
9. The game would end when agreed with a time lapse of three minutes.
10. The team who gets the least number of eliminated members within 3 minutes would win.

Siklot. Siklot is a popular traditional game in the Philippines. This game is usually played by male and female children who age ranges from 7 to 16. The main objective of the game is to successfully flick the stones that are dropped on the floor two at a time. Its rules or mechanics in playing the game are the following:

1. Each player provides himself or herself with six or more seeds, pebbles, or shells.
2. The players must decide who goes first.
3. In deciding turns, each player puts his/her stones in his/her hand, throws them all in the air, then catches them with the palm of the hand.
4. The player must try hard not to drop any stone in the last stage.
5. The player who drops none or the least numbers of stone will start the game.
6. The two players sit across, each other and the game is played on the space between them.
7. Afterwards, each player must put the same number of stones in the game.
8. The first player collects all the stones from other players.
9. The player then tosses the stones in the air and catches with the back of his / her hands; tosses them again and catches them in the palm of his / her hand.
10. The player will hold the stones she/he caught in one hand.
11. When stones on the floor are present, the player looks for cue stones and places it on the thumb over the index middle finger and flick the stone so to touch the other stones.
12. The player flicks every pair of stones on the floor until nothing remains.
13. After each successful game, one stone called “pamatu-taku” is put aside, then starts all over again.
14. If the first player misses to hit the other stones, the next player picks up where the game stopped until the first round is over.
15. The player who has the stone wins.

Ubusan - Lahi . This game has a goal of trying to conquer the members of a group

(as in claiming the members of another's clan). The tagged player from the main group would automatically become an ally of the tagger. The more number of players had, the better. The game would start with only one participant or player and then he or she would try to find and tag other players. Once a player had been tagged, he / she would then help in tagging other players until no participant would be left. Some people also know this game as *Bansai* o *Lipunan*. The suggested number of players was more than five.

After Cultural Games. A 30-minute discussion was initiated by the parents, with the guidance of the teacher right after every game, to acquaint pupils that what they were actually doing was the application of the concept of subtraction. The parents were advised to give enough details on where exactly on the game as the concept of subtraction was applied. The games were recommended to be played again if pupils were still hesitant of the manifestation of the concept of subtraction during the actual game.

As mentioned by Chua (2015), doing a concept is perhaps more important as one can fully appreciate a theory when it is being conceptualized or applied. This has been the same with any ordinary yet worthy endeavour. In the field of Mathematics, this requires activities that would make the conceptualization stronger, better and comprehensible. This further suggested that all of us started from sensory-motor skill development and progressed to series of stages until we reach to formal operational development.

Consequently, these conceptualizations of play has been described as a context in which children can integrate experiences, understandings, draw on their past experiences, make connections across experiences, represent these in different ways,

explore possibilities and create meanings (Bennet, Wood & Rogers, 1997). As viewed by Selin (2014), the use of games had been anchored when pupils were exposed to different mathematical games, created more stimulating experiences that would help them enjoy more while learning.

In Bavnbek & Hoyrup (2015), they noted that as soon as the rules of a game were understood, pupils often require little teacher's input, making games an ideal learning activity at home. Pupils were motivated and had positive approach to the involvement to Mathematics, and would strengthen the school-home relationship. This has been collaborated with the work of Bradley (2016) upon citing that the make use of games in Mathematics would not only encourage strategic thinking but also problem-solving and develop fluency. This would give the pupils a chance to apply their learning in different contexts and opportunities in explaining and discussing the mechanics involved with their peers, even without fear or failure. Pupils would be motivated and would have positive approach to Mathematics involved, strengthening the school-home relationship.

VI. ACTION RESEARCH QUESTION

The **general purpose of this study** is to seek answer in unlocking the difficulty of the lesson, in finding ways to address the least mastered competency M1NS-IIh- 32.4 *(visualizes, represents, subtracts, one -to-two digit numbers with minuends up to 99 with regrouping).* Thus the researcher aims to answer the question: ***How can I unlock the difficulty of my Grade 1 learners in subtracting two-digit numbers with regrouping skill through cultural games?***

VII. ACTION RESEARCH METHODS

a. Participants and/or other Sources of Data and Information

Participants. Seven (7) Grade 1 learners were selected as my participants of my study who find difficulty in subtracting numbers. Participants were selected based from a 15-item test I administered to them. The seven pupils who performed low from the test were considered as participants. In the concept of saturation or the point at which the data collection process no longer provides any new and relevant data or no longer sparks new theoretical insights, seven pupils would be enough (Dworkin, 2012). Moreover, in gathering the primary data, this was done through face-to-face individual discussions following strict compliance with proper health protocols: social distancing, wearing of face masks and shields, and proper hand sanitation. For the exclusion criteria, the study would not include other pupils who were not Grade 1 pupils and under my class. For the withdrawal criteria, participants were given the free will and voluntariness to get involved. They were assured that no threat, intimidation, force, or duress were manifested against them and that they could withdraw their participation anytime in the process. Their responses were treated with full secrecy; should not be revealed or disclosed to anyone.

Source of Data and Information. There is a learner - parent relationship in conducting the study. Since the pupils would be staying at their respective homes due to the pandemic, their co-players would be the rest of their family members. A 30-minute discussion was initiated by the parents, with the guidance of the teacher, right after every game, to acquaint the pupils that they were actually doing the application of the concept of subtraction. The parents were advised to give enough details on where exactly on the game, the concept of subtraction was applied. Therefore, the researcher would be making

a localized made interview questions to assess the application of the concept of subtraction through the intervention given. Since participants were minors, the scope and purpose of the intervention must be fully explained to them in a language known and understood by them, and expressly obtain the consent of their parents prior to administering the intervention, its implications, and risk.

Ethical Consideration. In the spirit of doing the right thing and behaving in a way that benefits others, as researchers, I had a moral responsibility not to mislead the study's participants or readers. I showed an aptitude for learning, inspiration, inquisitiveness, and persistence, as well as the capacity to see things through a scholarly perspective. It would be beneficial to carefully examine and highlight the participants' true intentions, while also respecting everyone's right to have beliefs, behavior, and views that vary in all areas of activity. Throughout this study, the identity of the participants for this research will be preserved and the names of the pupils will not be included on the data lists, as a number has been allocated to ensure confidentiality. Participants' relevant information, such as names and their socio-economic backgrounds, should be kept confidential.

In the notion of voluntary participation as an ethical issue, they were given the freedom and voluntariness to participate in the research. They were informed that they would face no threat, intimidation, coercion, or pressure and that they may withdraw their involvement at any point throughout the study process. Participants were told that they would be handled with complete privacy and secrecy, that is, without individuality, differentiation, or recognizability. The participants were reminded that their identities will not be exposed or shared without their permission and that even if consent is granted, they would remain anonymous. The participants were constantly reminded that secrecy

and privacy were strictly maintained. Research data were always stored in password-protected folders. The files were accessible only to us as researchers. After the research is complete, the saved data will be kept for at least three (3) years and then destroyed.

Regarding plagiarism as an ethical issue, I ensure that the proper and precise manner of citing ideas from other authors and academics is adhered fully. The writings in this article made no attempt to deceive the respondents to damage their wellbeing. I verified and confirmed all the materials I wrote. The researcher is honest, just, and thoughtful of others in his or her professional efforts, as the researcher has never behaved in a manner that endangered the personal or professional well-being of others. It guaranteed that activities were taken properly and in a way that fostered trust and confidence; and that no fraudulent, misleading, or unethical remarks were made on purpose.

No individual should be placed in a position where they could be harmed because of their involvement, the likelihood that something negative or unpleasant will occur, something that results in positive outcomes and consequences, and relief from injury, risk, or the state of being brought safe, according to the risk concept as an ethical consideration. The research participants were not harmed in any manner. The participants were guaranteed of their safety, as any conversations would be kept between them and myself. The researcher demonstrated a greater awareness of her ethical and scientific responsibilities toward the communities and cultures in which study participants live. Rather of being judgmental, they sought to cultivate an ability to comprehend and a thorough grasp of research participants' views. It would see education as a method of

promoting social acceptance, rather than as a means of establishing one's superiority over another.

In the concept of fabrication and falsification as ethical consideration, I as the researcher adhered to the highest scientific and professional standards and assume authority, ownership, and authorship of the study. While generalizing, the researcher must cautiously bear in mind that there was no easy way or shortcut to truth. The study is not a product of fabrication but was based on truthfulness; hence, it would be necessary to obtain complete data. The result was not fabricated or fictitious in character but would undergo a series of research process validated and tested for reliability and validity purposes. I assured that there was no misrepresentation of the work as what other studies revealed or indicated, is properly cited, and based on truth, not fictional or made-up theories, concepts, ideas, or results.

b. Data Gathering Method

In gathering the data of the study, I sought first the permission of my principal to conduct an Action Research to my selected pupils. After getting the approval, the intervention was made. Afterwards, I personally delivered the letter to the parents asking consent to let them be subjected to the strategies. Data collections commenced after the informed consent has been signed and setting up of schedules were made. During the run of the study, the researcher conducted this method of data gathering:

Additionally, I informed them on the goal of my Action Research, their desire to participate in the study, and their right to withdraw from the research process at any moment if they feel pressured, intimidated, or uncomfortable. Because the intervention

was administered face-to-face and in combination with the Covid-19 pandemic, I carefully followed all recommended health precautions and procedures, which included wearing face masks and face shields, hand washing or hand sanitization with alcohol, and social distancing. Following that, data for the research were gathered and tokens were distributed to the respondents' parents as a symbol of gratitude for their participation and cooperation during the intervention. They were assured those ethical considerations such as social value, informed consent, vulnerability, privacy, confidentiality, and anonymity, justice, risk, benefits, and safety, facility adequacy, researcher qualifications, honesty and trust, and reciprocity would be implemented or fully practiced.

Pre and Post Test. A 15-item test was conducted to the whole class, but only the result of the seven (7) pupil-participants was considered as data. Pre-test and post test were given to pupils to be answered at home, without the assistance of the parents.

Interview. This was used to elicit further information concerning the activities. The interview aimed to prompt pupils to reflect their experiences on playing cultural games to address the difficulty in subtracting numbers.

d. Data Analysis Plan

Data Analysis. The researcher made use the following data analysis:

Mean. The obtained mean scores of the pre-test and post-test were used to determine the score of the learners before and after the utilization of the intervention.

Tabular Form. This was used in order to analyze and record all the responses from the respondents following the use of the intervention through the parent interview.

After the mean was collected, the data were interpreted. If the mean during the post -test would shows a large increase as compared to the pre-test, therefore, cultural games were effective in unlocking the difficulty of my learners in subtracting numbers with regrouping.

VIII. DISCUSSION OF RESULTS AND REFLECTION

Table 1 presents the summary table on the pre-test and post test scores of my seven participants of the study.

Table 1. *Summary Table on Grade 1 pupils Pre and Post Tests Scores*

Participants	Pre-Test	Post-Test	Difference
1	4	8	4
2	5	9	4
3	5	8	3
4	4	7	3
5	3	8	5
6	4	8	4
7	4	8	4
Total	**29**	**56**	**27**
Average	**4.14**	**8**	**3.86**

As illustrated in table 1, the overall mean scores of the seven pupils that needed intervention resulted to 4.142 (total of 29) whereas the post test result has an average score of 8 (total of 8) which has a difference of 3.86 suggesting that the scores of the identified low performers improved well. It can be implied that the identified Grade 1 pupils with the aid of cultural games like LABAY TUNGA (LABO-LABO) , SIKLOT and

UBUSAN - LAHI OR GAME OF CONQUER have better chances of unlocking the difficultyin subtracting two-digit numbers with regrouping skill. Cultural activities may have a favorable impact on students' ability to subtract two-digit numbers using regrouping.

As I can observed when I ask questions “what can you say about subtracting two-digit numbers and with the aid or use of cultural games like Labay Tunga (Labo-Labo) , Siklot, and Ubusan - Lahi , majority of them answered that “*Akoang gibawasan ang numero” (I subtracted the number).* This was even strengthen by another response made by the participant during In-Deep Interview when being asked how to describe cultural games. One of the participans mentioned that “*mga dula sa tribu nga kanunay namong ginadula dria sa among balay ug sa ubang bata nga among silingan*” (tribal games that we always play here in our house and with other kids in our neighborhood).

Consequently, at first, they find it difficult in subtracting two-digit numbers but with the presence of play through cultural games, they have fun at the same time learning. This has been evident during IDI when one of the participants highlighted that *“Opo Mam, malingaw ko magdula ilabina nag mga dula sa tribu kayusa man ako katribo usab* (“Yes Mam, I enjoy playing especially tribal games as I am a citizen).

Furthermore, “when being asked in what manner you learn something in doing / playing cultural games? What are your likes and dislikes about it?” majority of participants replied that it was “fun and interactive”. Majority of them wanted to play more with cultural games? In what manner you would like to play with it*? (Opo Maam, gusto ko pa makat-onan ang uban pang mga dula satribo. Ganahan ko makig dula sa akong mga higala kay daghan kaming nakat-onan ug mga kalingaw).* Play allows children to use their creativity while developing their imagination, dexterity, and physical, cognitive, and emotional

strength. Play is important to healthy brain development (Shonkoff & Phillips, 2000). . It is through play that children at a very early age engage and interact in the world around them (Tamis-LeMonda, Shannon, Cabrera, Lamb, 2004).

Furthermore, a child's play enables them to construct and explore a world they can manage, overcoming their anxieties while practicing adult duties, often in combination with other children or adults (Tsao, 2002). Play helps youngsters learn new skills and build the confidence and resilience they'll need to tackle the difficulties of the future as they become more familiar with their surroundings (Erickson, 1985). Unstructured play teaches youngsters how to collaborate, share, negotiate, and settle disagreement, as well as how to stand up for themselves.

This was supported with the response of the participant saying that *"Nalingaw siya samtang nagdula, gawas pa niana, pinaagi sa pagdula nakat-onan niya ang pag-ihap, pag subtract ug paghigalaay"* (He had fun while playing, besides, by playing he learned to count, subtract and make friends). The idea that allowing children to make decisions, proceed at their own speed, find their own interests, and finally participate fully in the passions they desire to pursue, as they play, is the same as the previous one.

Ideally, as a result, when play is overseen by an adult, children give up some of the advantages play provides, notably in terms of developing their creativity, leadership and teamwork (Rosenfeld & Wise, 2000). Also, when parents watch or participate in their children's play, they have a unique chance to experience the world from their kid's perspective as the youngster navigates a world built especially for them.

Reflection

This study “UNLOCKING DIFFICULTY IN SUBTRACTING NUMBERS OF GRADE I LEARNERS THROUGH CULTURAL GAMES” Technique created a voluminous effect on the pupils as it was used. There were significant changes in the way respondents participate, interact and be responsive when it comes to their understanding with the concepts of subtraction. Play is integral to the academic environment. It ensures that the school setting attends to the social and emotional development of children as well as their cognitive development. It has been shown to help children adjust to the school setting and even to enhance children’s learning readiness, learning behaviors, and problem-solving skills.

Consequently, it brought joys to them, eager to participate and sees learning not as something to be afraid of but something worthwhile to do. They become not only participative but interactive, and responsive. For us educators, it made our purpose worthwhile and our teaching career productive knowing that we had helped pupils or students not be afraid but instead be better when it comes to subtracting numbers. For me as an educator and as a mother, it makes my purpose worthwhile and my teaching career productive.

IX. Action Research Work Plan and Timelines

ACTIVITIES	PHYSICAL TARGET	PERSONS INVOLVED	TIMELINE												
			1st Quarter			2nd Quarter				3rd Quarter			4th Quarter		
			S	O	N	N	D	J	F	F	M	A	M	J	J
Preparation of Research Proposal (Chapters 1 and 2)	1	Researcher	/												
Preparation of Research Instrument	1	Researcher		/											
Seeking Permission for the conduct of Pre-Test	Letter of permission	Researcher/ School Head/Brgy. Captain		/											
Data Collection (Conduct of the Pre-Test)	30	Researcher/ Parent/ Participants		/											
Data Collection (Asking Consent from the Participants)	Letter of permission	Researcher/ Parents/ Participants			/										
Data Collection (Conduct of Cultural Games)	6	Researcher /Participants				/	/								
Data Collection (Conduct of the Post-Test)	6							/							
Data Analysis/ Interpretation/	1	Researcher/ Learner Participants							/						
Reporting of Data (Presentation)	10 (Proposed)	Researcher School Heads/ Teachers/								/					
Final Manuscript	1	Researcher									/				

PLANS FOR DISSEMINATION AND UTILIZATION

To raise awareness, discuss the results of this study, promote utilization as well as share knowledge on preparing and administering this Cultural Games, trainings and seminars will be conducted to the interested participants and other significant stakeholders in each schools or districts of Davao Occidental.

Specific activities, time frame, persons involved, and success indicators are presented below.

ACTIVITIES	TIME FRAME	PERSONS INVOLVED	SUCCESS INDICATOR
Secure permission from Barangay LGU, District and Division Offices	2nd – 3rd week of April 2022	IP Elders, Barangay Tribal Chieftain and Council , Barangay Captain PSDS, SDS	Approval from the signatories have been obtained.
Conduct information dissemination on findings of the study to the participants and other significant stakeholders.	1st – 2nd week of May 2022	Mathematics Coordinators/Mathematics Subject Teachers, Class Advisers	Target clienteles have been able to attend and participate in the activity.
Conduct relevant trainings/seminars on preparing and administering the Cultural Games Intervention			

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Rest assured that all responses are treated with the utmost confidentiality. Also, you are free to withdraw from your participation in this endeavour at your convenience.

Makasalig kaw ya kadakula na tubag pigbalanday na to-o madyaw na pagtumantuman.Olo makaluwa sa pag sule lekat na kanmu pag-eped seiy pagtibagseg sa kanmu kawlas.

Are you willing to participate or do give your consent to be part of my study? If yes, you may continue. If no, you may return this questionnaire to me. For better understanding, the questions were further translated to Cebuano as I intend to know your responses on the following:

Tyatagilan da kaw na meped aw mag-atag sa kanmu pagtumbay maatag sa pagbakay?Kun ee mabatug mu padelegen. Kun dili, maimu mu kanak iliku mu kanak ya usip.Tag to-o mag-ilabet kay kalim ko kaedean, ya manga usip pig-ubad adti Tagakaulo kay kalim kaedean ya tingeg mu salut.

Informant's Profile
Code: xy Informant # 1

Research Questions	Main Questions	Probe Questions
1. ***How can I unlock the difficulty of my Grade 1 learners in subtracting two-digit numbers with regrouping skill through cultural games?*** *Unun ku mapamulas ya malug na Tagna pituladaanan sa pag-uwa sa gelang na duwa ka lamidu na ugbung kanu kyaliman na kapanday gamit ya kettal na danga?*	1. As a pupil, what can you say about ***a. subtracting two-digit numbers***? b. cultural games? *Sagwa ise, unu ya kanmu mapaglung tepad* *a. Sa pag-uwa sa gelang na duwa ka lamidu?* *b. Kettal na danga?* 2. As a parent, what can you say about cultural games being introduce to my child?	1a.1. How would you describe ***subtracting two-digit numbers***? b. How would you describe culturl games? *1.a.1. Unun mu ya pag-inaw sa pag-uwa sa gelang na duwa ka lamidu?)* *b. Unun mu ya pag-inaw sa kettal na danga?* 1.a.2. Do you find easy subtracting ***two-digit numbers***? *2.Mulas lang ba kanmu ya pag-uwa sa gelang na duwa ka lamidu?* 3.How about cultutal games? Did you have fun in doing it?

	Sagwa matikadeng, unu ya kanmu mapaglung tepad na danga na tribu na matulada dun i kanmu ise?	*3.Unun mu uman sa padanga na kettal? Yaleba ba kaw sa yaimu yeiy?* 4.In what manner you learn something in doing / playing cultural games? What are your likes and dislikes about it? *Wan ya kanmu kytagantagan sa pag-imu aw pagdanga sa kettal na danga? Wan alag ya kanmu dili mu kyaliman aw kyaliman dun manynan?* 1.5 Do you want to play more with cultural games? In what manner you would like to play with it*?* *Malin pa ba kaw magdanga sa kettal na danga ?* *Wan pa ya unmu kaliman na dangen?* 2.1 Does my child enjoy with the cultural games? Does he/she learn something*?* *Yan na ise ku yaleba sa danga na kettal? Awun ba kyaedean nan?* 2.2 In what manner does my child learn about cultural games? Did he/she enjoy playing it? *Wan ya kyatagan na ise dun I danga na kettal? Kyaliban ba kaya nilan ya pagdanga?* 2.3 What suggestions I can share with others about cultural games and subtracting ***two-digit numbers as a form of learning to my child?***

		Wan ya kanmu uduk na mabagi mu adti eped tepad nakettal na danga aw pag-uwa sa gelang na duwa ka lamidu? ***2.4 Are you in favor with cultural games and learning together? Malin ba kaw sa kettal na danga aw kyaedean pag-eped eped?***

Republic of the Philippines
Region XI
Malita, Davao Occidental

PUGAWANG SA PAG ATAG

Sa kanak na sambuk Regional Consultative Advisory Body Cahirperson sa Region XI. Aku migtumbay sa pag-imu sa kanmu pagkalkal sa imuunun pada sa Tagna pigtuladaan na pagkautawen mangayse na tribu adi Lacaron Elementary School, Malita North District, Division na Davao Occidental.

Kanmu kay magtuladaay Lucilyn T. Sahibol, aku nyangintua sa pagkalkal makaatag sa kadyawan pada sa kamangayseanan na tribu, tag to-o pa demeleg aw makabatbat adti katalangatangan na katadeng ya kanilan katadeng sa Batillo aw eped pa na unsilingan aw sa ini yatapil dun i danga na tribu yan tengteng nilan pagkaleben na danga.

Aku nyanginto-o yeiy pig-imu na DepEd to-o makaudok sa pyangulliman na katadeng na manga tribu aw manga katanem na pag-imuun.

Kini gawasnon naku nga gihimo ug gipirmahan karung petsa 21, sa Oktubre, 2021.

Ini ya pagtumbay na walay kalyu na tengteng lekat adi kanaken pusu adun na allaw 21, na Oktubre, 2021.

DATU JULIO S. BAGI
Regional Consultative Body (CAB)
Chairperson

Republic of the Philippines
Region XI
Malita, Davao Occidental

RESOLUSYON SA PAGTUGOT

Isip Regional Consultative Advisory Body Chairperson sa Region XI. Ako mihatag sa pagtugot sa pagpahigayun sa imung research para sa Grade 1 IP Learners sa Lacaron Elementary School, Malita North District, Division of Davao Occidental.

Kanimo Ma'am Lucilyn T. Sahibol, ako nagtoo nga ang maong research dako ang matabang alang sa Kabataang Lumad aron mas mapauswag pa nila ang ilang kahibalo sa Mathematics ug sa uban pang subjects ilabina nga kini naglambigit sa Cultural Games Ako nagtuo usab nga kini gihimo sa DepEd makatabang sa pagpaambit alang sa Indigenous Peoples tradisyunal nga gawi.

Kini gawasnon naku nga gihimo ug gipirmahan karung petsa 21, sa Oktubre, 2021.

DATU JULIO S. BAGI
Regional Consultative Body (CAB)
Chairperson

Republic of the Philippines
Region XI
Barangay Lacaron
Lacaron, Malita, Davao Occidental
8012

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RESOLUSYON SA PAGTUGOT

Kami manga miyembro sa IP Council of Elders/Leaders sa Barangay Lacaron, Malita, Davao Occidental, gipangulohan ni Barangay Tribal Chieftain UBANEN RODINO G. FERMIN, mihatag sa pagtugot sa pagpahigayun o pagconduct, validation ug pagpublish sa imong research kabahin sa Cultural Games nga ang mga sumasalmot niini mga Grade IP Leraners nga nagtungha sa Lacaron Elementary School. Kami kanunay mosuporta sa mga kalihukan sa DepEd nga malambigit ang Indigenous Knowledge Systems and Practices (IKSPs), ug sa Kabataang Lumad sa tulunghaan ug sa kumunidad. Kini ubos sa pagpahinumdom sa DepEd nga moagi sa pagtugot uban sa NCIP.

Kami nagatoo nga dako ang matabang niini nga research kay bahin man kini sa Cultural games, usa ka pamaagi sa pagtudlo gamit ang mga dula sa tribo aron mapasayon nga masabtan ang mga leksyon pinaagi sa dula. Ang maong pamaagi sa pagtudlo makapauswag sa abilidad sa mga kabataang lumad ug sa uban pa nga mga bata nga buot mokat-on pa niini.

Kini gawasnon namo nga gihimo ug gipirmahan karung petsa 24, sa Oktubre, 2021.

UBANEN RODINO G. FERMIN
Barangay Tribal Chieftain

UBANEN MYCO TONGON
Barangay Tribal Council

BAE LINDA TABERNERO
Barangay Tribal Council

UBANEN ROGELIO MACALO
Barangay Tribal Council

UBANEN HONORIO GUMANAYAN
IP ELDER

UBANEN IGNACIO PANOGOL
Barangay Tribal Council

UBANEN LORETO BANDILA
IP ELDER

UBANEN KIM TABERNERO
Barangay Tribal Council

UBANEN MEGILITO PANOGOL
IP ELDER

UBANEN ARMANDO BANDILA
Barangay Tribal Council

BAE CLAUDIA LEBIOS
IP WOMEN

UBANEN VICTOR QUITERIORE
Barangay Tribal Council

RODILYN FERMIN
IP YOUTH

PARENTAL CONSENT

PART I: INFORMATION SHEET

Tinahud namong ginikanan,

Ako si Lucilyn T. Sahibol, magtutudlo sa Lacaron Elementary School. Sa kasamtangan, nagpahigayon sa usa ka pagtuon kabahin kini sa pagkat-on kun unsaon sa pagkuha sa numero o subtracting numbers sa mga Grade I nga kabataan sa Lacaron Elementary School nga nagaulohan og "UNLOCKING DIFFICULTY IN SUBTRACTING NUMBERS OF GRADE 1 LEARNERS THROUGH CULTURAL GAMES." Kini adunay kinatibok-ang katuyoan nga makaresolba sa problema sa mga bata kabahin sa subtracting numbers. Dugang niini, aduna usab mga piho nga katuyuan nga mao ang mosunod:
Aku si Lucilyn T. Sahibol, magtuladaay ni Lacaron Elementary School. Sa pagkaadun, mig-imu aku na sambuk pagkalkal na pagsiling na awun bagi kun unun pag-uwa na gellang na lamidu sa Tagna pagsiling dun i kamangayseanan na Lacaron Elementary School sa talantang "UNLOCKING DIFFICULTY IN SUBTRACTING NUMBERS OF GRADE I LEARNERS THROUGH CULTURAL GAMES." Ini yeiy awun tud na katitibuwanna makaubad sa kapelek na mga ise sa bagi na pag-uwa sa gellang na manga lamidu. Awun pa uman tud sa ini yeiy kiten adi dalem:

1. **Sa paggamit niining konsepto sa mga dula sa tribo, nga ipailaila ug itudlo sa mga ginikanan ngadto sa ilang mga anak , usa ka interbensyon maabli ang kalisud sa "*subtracting numbers*"**
   Ini na paggamit sa katanem na kettal na danga, ipakilala aw itulada na manga matikadeng adti kanilan kamangayseanan, sambuk imuunun na mauwangan ya kapelek sa pag-uwa sa gellang na lamidu.
2. **Pagtino kun ang paggamit niining mga dula sa tribo nga mga kalihokan epektibo ba nga maabli ang kalisud sa "*subtracting numbers*"**
   Matinawen kun ya pagsiling sa kettal na danga na manga imuunun tengteng makatalaban mauwangan sa kapilek aw kalisudan sa pag-uwa sa gellang na lamidu,

PURPOSE OF THE RESEARCH

Ang resulta sa maong pagtuon maghatag og impormasyon kung makatabang ba kini sa mga kabataan sa Grade I sa ilang pagkat-on nga mapasayon ang pagsulbad kabahin sa *subtracting numbers.*

Ya kakawasan na pagsiling makataag na pagpaede kun makatlaban ha yeiy na manga kamangayseanan sa Tagna pagsiling sa kanilan pagbatbat na mapamulas pag-ubad sa gellang pag-uwa na lamidu dun i ugbung.

TYPE OF RESEARCH INTERVENTION

Ang maong pagtuon maoy pinaagi sa *cultural games.* Ang mga datos nga akong makuha sa maong assessment gikan sa maong pagtuon dili makaapekto sa ilang *record* sa tulunghaan.

Ya yeiy pagsiling silingen ya kettal na danga. Ya manga datus na kanak mankamang kanilan lekat na manga imuunun sa pagsiling dili alag maapektuwaan ya kanilan "record" ni tuladaanan.

PARTICIPANT SELECTION

Ang mga partisipante mao ang pito (7) ka mga magtutungha sa Grade I nga mga nagpuyo sa Barangay, Lacaron, Malita, Davao Occidental.

Ya manga mapil sa pagsiling kay pitu (7) ka mag-iskwelaay sa Tagna pagsiling na mig-eya ni Banwa, Lacaron, Malita, Davao Occidental.

VOLUNTARY PARTICIPATION

Ang pag-apil sa mga bata sa pagtuon usa ka boluntaryo. Busa, akong irespeto kun unsa man ang imong desisyon sa pagtugot sa imong anak, nga moapil niini nga pagtuon. Kung imong pagbuot nga dili tugtan ang imong anak, dili kini makaapekto sa iyang *record* sa pagtuon sa Grade I.

Ya pag-apil na manga kamangayseanan sa pagsiling wala legesa, lekat ni pusu ya kalim. Yan agaw, kun wan alag ya kanmu disisyon sa pagtumbay na ise, atag ku ya pagdeyen, manang kun dili kaliman mapil ya kanmu ise, dili kaw magkapelek kay ya pigbetang sa tagna pagsiling dili malagak aw maapiktuwan.

PROCEDURES

Ang mga datos sa pagtuon, kuhaon sa una nga pamaagi nga pagpahibalo sa mga ginikanan nga og *parents' orientation, Free-Prior Informed Consent sa NCIP, ug Barangay Tribal Chieftain and Tribal Council alang sa pagtugot.* Dayon, ipahigayun mga *Math activities* nga may kalabotan sa *subtraction* aron mahibaloan kun kabalo sila sa *subtracting numbers* o dili makabalo, kini gitawag pre-assessment. Mosunod niini ang pagpahigayun sa maong leksyon pinaagi *cultural games* nga ilang pagadulaon. Maghatag usab kami ug mga materyales para sa buluhaton nga adunay kalambigatan sa pagtuon sa mga bata sa balay nga gitawag og *assignment.* Pagkahuman sa usa (1) ka bulan sa pagpahigayun sa maong pagtuon magpahigayon na usab ko og kataposang pagsulay nga gitawag nga *post-assessment* kung kini pagtuon ipektibo ba sa mga bata sa ilang pagtuon ug pagkat-on sa *subtracting numbers.*

Ya manga datus na ini pagsiling, tagna kamangen sa pagpaede na manga matikadeng kun wan alag ya manga paede, eped ya Free-Prior Informed Consent sa migdala sa tribu NCIP, manga matikadeng na banwa aw palibedan kun atag ba nilan ya pagtumbay sa pagkalkal na pagsiling. Pagkatigkas, imuunun da uman ya manga imuunun na batillo na nyakaapil ya pag-uwa sa gellang na duwa ka lamidu na ugbung, aw kaedean kun nyakalabet ba o wala sa pagsiling, ini pigtawag na pre-assessment. Gumuyud da uman ya pagsiling gamit ya kettal na danga. Pagkatigkas, awun da uman atag na mga gamitenen na imuunun sa pagsiling dun i balay tawag seiy assignment. Pada kaedean kun kyalbetan nilan ya pagsiling matag aku kanilan tyamanan na imuunun, kun ya pagsiling tengteng makaatag na kadyawan sa bagi na pag-uwa sa gellang na manga lamidu.

DURATION

Ang maong pagtuon ipahigayon sulod sa usa ka bulan nga pagpahigayun sa among leksyon pinaagi sa *cultural games.*

Ini na pagsiling imuun seled na sambulan lekat na pagsiling na mga imuunun gamiten ya kettal na danga.

RISKS, BENEFITS, AND REIMBURSEMENTS

Walay nahibal-an nga mga peligro sa pag-apil sa maong pagtuon. Wala usab kini direkta nga mga benepisyo, gawas sa imong kontribusyon sa kahibalo bahin sa gihisgotan nga pagtuon.

Walay kyaedean na kapelek aw malat sa pag-apil na ini pagsiling. Wala uman yeiy paglong awun "direkta" na manga binispisyo, ya kanmu olo pag-atag aw makabatbat adti katalangtangan na katadeng na yeiy pagsiling.

CONFIDENTIALITY

Ako ra ang adunay kopya sa bisan unsang kasayoran o impormasyon nga nakuha gikan sa imong anak ug kini ikapadayag lamang ubos sa imong pagtugot.

Aku lang olo ya awun kopya na pangkay walan na pagpaede lekat sa kanmu ise, aw ini kiten na kadeg kun atag mu ya kanmu pagtumbay.

SHARING THE RESULTS

Wala kami intensyon nga ipaambit ang resulta ngadto sa ubang magtutudlo.

Dili na tud na ipaede o iatag ya kakawasan na ini pagsiling adti eped magtuladaay.

RIGHT TO REFUSE OR WITHDRAW

Kini usa lamang sa sulat alang sa imung pagtugot. Aduna kay katungod sa pagbalidad kung dili ka gusto mopartisipar.

Ini yeiy olo sulat na paede pada sa kanmu pagtumbay. Manang kun dili kaw malim, maimu uman na dili mu paapilen na mapil sa ini pagsiling.

WHO TO CONTACT

Kun aduna kay pangutana, mamahimo nimong kontakon kining numero nga maoy nagpahigayon sa pagtuon.

Kun awun kaw manga usip, maimu tawagen ini na lamidu na yan ya mig-imu sa pagkalkal na ini pagsiling.

LUCILYN T. SAHIBOL

Lacaron Elementary School, Lacaron , Davao Occidental

Mobile phone number **09361217589**

PART II: CERTIFICATE OF PARENTAL CONSENT

Nabasa nako ang nahisgotang mga kasayoran o gibasa na kini sa akoa. Adunay higayon nga nakapangutana ako bahin niini ug ang akong mga pangutana natubag og sakto. Boluntaryo akong motugot nga mopartisipar ang akong anak sa maong pagtuon.
Nyabasa da ku ya katitibuwan na manga paede aw basen uman nilan kanak. Awun lugal nga makausip kun bagi seiy aw awun pa uman usip na pigtubag nilan umba. Yalim aku na mapil ya kanak ise sa ini na pagsiling.

Sa imong pagpirma niini, ikaw nagahatag og pagtugot nga mopartisipar ang imung anak sa maong pagtuon.
Sa magpilma mu seiy, pigtumbay mu ya kanmu ise na mapil sa ini na pagsiling.

Palihug sa pagmarka sa kahon kabahin sa imong pagtugot nga kuhaan og video/audio recording panahon sa interview kun kinahanglan.
Kun maimu, butangi na kulis ya kaban kun pigtumbay da mu na kamangan na video/audio recording sa allaw na pag-usip kun ini kailangan.

☑ Nagahatag ako og pagtugot nga kuhaan og video/audio recording ang akong anak.
Pigtumbay daku nga kamangan na video/audio recording ya kanak ise.

☐ I do not give permission for my child to be audio/videotaped.
Dili aku malin atag ya kanak pagtumbay na kamangan na video/audio recording ya kanak ise.

Pangalan sa imung anak: [redacted]
Ngalan na kanmu ise: _____
Pangalan sa ginikanan: [redacted]
Ngalan na matikadeng: _____
Pirma sa ginikanan: Jocelyn B. Abarra
Pilma na matikadeng: _____

Petsa[MM/DD/YYYY]: 11/18/2021
Allaw[MM/DD/YYYY]: _____

STATEMENT BY THE RESEARCHER OR PERSON TAKING CONSENT

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:
1.Brief one on one interview regarding the research study

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Print Name of Researcher or person taking the consent:

LUCILYN T. SAHIBOL

Signature of Researcher or person taking the consent:

Date [MM/DD/YYYY]: 11/19/2021

LUCILYN T. SAHIBOL
Researcher, Division of Davao Occidental

Manga Kettal na Danga

Labo-Labo

Ya kakawasan na danga na labo-labo pada maalut lahat ya magdangaay dun i sangkilid ugbung, magbabintuway na bula pada kelegan adti sambuk na ugbung. Unu ya pingyayadu: asimuna na bula gamit ya dawun na iyug

Ya Tud na danga:

1.Ya sambuk na ugbung talamanen nan degen adti na sangkilid ugbung. Sagwa ya idtu eped ugbung talamanen nan bintuwen.

2. Magladyawan sa batu agbel, kun singan ya mawat kaagbelan yan ya dumeg.

3.Ya tenga na magbabintuway mindeg palekat adti sangkilid ugbung, ampulu tag depa kawat dun i kanan eped.

4. Ya tumameng suminan adti naunlinanpagdangan.

5.Ya duwa ka iyap, ya tumameng nan pakelegan sakmiten ya idtu bula, aw ya sambuk bula gamiten, pagkatigkas na duwa ka iyap.

6. Ya idtu kyelegan na migdanga paluwaen da na danga.

7.Talamanen nan tamukon ya bula aw katagan ya pagdegnan, kaepedanan nan nga yakaluwa.

8.Ya sambuk magdadangaay madti seled na dadanganan aw ya sambuk eped maluwa.

9. Ya danga matigkas, kyaliman nyakalagpas na tulu ka iyap.

10. Ya ugbung na idtu tabay kyelegan yan ya dyumeg.

Tamok-tamok

To-o pigkilala ya danga ini adi banwa tadun. Ini yeiy ya danga mabatug dengen na eseg aw bubay lekat na umay 7 taman 16.

Ya Tud na danga:

1.Ya kada magdangaay maninaw sa kanan na enem o sampulu aw pangkay pila ya makayanan dangaen na seled na tanem, magkayantek na batu, tuway o tayaku aw libukuk.

2. Ya manga magdangaay yan ya magpatenga kun singan alag ya muna dumanga.

3.Yan ya magpatenga, yan da uman ya magtulli kun yan ya magdangaay, ibutang ya manga batu adi kanan palad, agbel patas, aw tamukon, tigkan buliskaden ya palad, agbel da uman patas ya batu aw tamulad da uman palad na kamaw.

4.Pulban nan to-o, na dili mataktak nan pangkay sambuk na batu ya yeiy kapupusan da.

5.Ya magdangaay na wala pakataktak yan tagbi lang ya mataktak na batu sa pagdanga nan yan ya magpalekat na danga.

6.Ya duwa magdangaay mig-insaungon, aw magpalekat da magdanga dun i tenga nilan.

7. Ya kada magdangaay ibetang ya mag-unaw ya lamidu na batu sa danga.

8. Ya lekatan na danga, to-o tinunan ya palabtig na batu ya duen yataktak dun i bantal makaduwa kada tingeg na udas.

9. Ya tagna magdangaay mangamkam nan ya lahat batu na eped magdangaay.

10.Ya magdangaay, tigkan nan patilingen ya batu patas aw tamukon nan gamit ya bagakwang na palad, patilinge salut aw tamukon gamiten ya palad.

11. Ya magdangaay awidan nan ya batu aw tigkan tamukon gamit ya sambuk palad.

12. Kun awun batu yataktak ni bantal,ya magdangaay maninaw sa "*matu na batu"* aw ibetang dun i babakel lantu na datu tullo aw tigkan palabtiga ya batu pada maawidan ya eped batu.

13.Pagkatigkas na danga , ianggin ya sambuk batu pigtawag *"taku"* aw tigkan da uman magpalekat likuon ya danga.

14.Kun ya tagna magdangaay yatigkas da nan ya kanan danga aw pagkay sambuk walay yalagak batu ya sunud magdangaay magpalekat da uman na bagu danga.

15.Kun ya tagna magdangaay yakasayep kelegan ya eped manga batu, ya sunud magdangaay pulutun nan patas dun lekat patenengen da ya danga taman tagna libed na danga ya tigkas da.

16.Ya magdangaay na yakakamanang na madeg batu yan ya dyumeg aw yan ya tagbi yakamang na batu yatalu.

Igwasay sa Umagakan

Ya kakawasan

Ya tud na danga:

1.Ya sambuk na un kumamang na eped dun i ugbung kaliman nan kamangen ya kanan sambuk kyapesaan.

2. Ya balagen yan ya ladyawan na magbebeklasay.

3.Kun madeg magdangaay madyaw to-o. Ya danga magpalekat na sambuk olo aw tigkan da uman maninaw sa kaepedanan magdangaay. Kun madeg mawid ya magbebeklasay sa balagen pakadyawen.

4. Ya danga palekatan na sambuk magdangaay aw pulban adti sambuk ugbung.

5. Kun ya sambuk magdangaay makatigkas, aw tumalaban da ya eped magdangaay taman na wala day kaayawan na magdangaay, kun singan ugbung madeg yakamang nan eped lekat adti sangkilid ugbung yan ya dyumeg.

MEANS OF VERIFICATIONS