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ASSESSMENT OF MATHEMATICS SKILLS AMONG GRADE 6 LEARNERS IN CAGAYAN DE ORO CITY

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ABSTRACT

Mathematics in elementary education helps learners develop creativity and the ability to think, communicate and solve problems. This study was conducted to determine the level of mathematics skills among Grade 6 learners in Southwest II District, Division of Cagayan de Oro City, S.Y. 2022- 2023. Specifically, this paper sought to identify the characteristics of the learners, find their level of mathematics skills among Grade 6 pupils, and determine the significant relationship between the learners' mathematics skills and each of characteristics. The respondents to the study were the one hundred fifty (150) Grade 6 learners in the elementary schools where this study was conducted. The instrument was the mathematics learning summative test on whole numbers, fractions, decimals, ratio, and proportion. This was patterned and modified from Grade 6 self- learning modules. Descriptive statistics such as frequency, mean and standard deviation were used to describe the variables in the study. Further, the Pearson Product Moment Correlation Coefficient(r) was employed to determine the significant relationship between the learner's mathematics skills and their characteristics.

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The findings revealed that learner characteristics indicate Beginning performance level, which impacts the assessment of Mathematics literacy. The content whole numbers, in particular, obtained the highest overall mean, indicating that learners had formerly learned the content and held the capabilities reflected in the overall number for this area. Still, the fraction got the smallest mean standing, indicating that learners found the content delicate and that they were unfit to acquire the capabilities under this content. The Grade 6 learners showed developing in the area of whole numbers, as they set it up easy to perform during the first and alternate diggings of the academy time. Parents' follow-up played a significant role in pupils' growth and helped to enhance pupil performance in the classroom. Learners felt more driven to learn and help to improve their grades. Study habits significantly had an impact on the test results and the academic performance of learners. It is recommended that teachers must give remediation to the learners, emphasizing the content of fractions. Above all, learning Mathematics may be empowering when learners are immersed in real- world events - problems and linked to their day-to-day life.

Keywords: Assessment of Mathematics Skills

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Introduction

In the elementary school curriculum, Mathematics is one of the disciplines that is given with emphasis. The subject matter covered in class and how it's presented are a direct result of how learners' attitudes regarding the subject gradually change over time, how society's requirements change and grow, and what literacy experimenters have discovered. At the moment, learners must acquire a wide variety of proficiency and generalities, including problem-solving, fractions, numbers, ratio, proportions, and other topics. They must also comprehend whole figures and their introductory operations. It is pivotal that learners are prepared with the fundamentals, especially on the five topics—whole numbers, decimals, fractions, ratio and proportion—which are the core focus of the four introductory operations. As a result, they must do their part to make Mathematics learning productive. For it is only through number proficiency that one can defy the complexity of today's society.

This study looked into the Mathematics skills among sixth-graders and identified the variables that affect mathematics skills. Understanding how Grade 6 learners perform and what factors contribute to their success or difficulty in the subject is crucial since mathematics education is crucial for developing fundamental cognitive and problem-solving skills. In order to offer helpful insights for improving mathematics education at this vital period of learning, the study will evaluate a variety of topics, including learners' cultural orientation, parents' follow-up, and study habits toward Mathematics.

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In accordance with DepEd Order No. 55 series of 2016, Policy Guidelines for the National Assessment of Student Learning for the K to 12 Basic Education Program, the Department of Education seeks to develop numeracy learners who can apply numeracy expertise for a variety of purposes through assessment, which is used to quantify judgments on learners' academic performance. To negotiate this, critical thinking and problem-solving must be emphasized in both Mathematics instruction and the design of assessment tools. Because numeracy proficiency is the foundation for learning all fine capabilities across grade levels, determining how important it is to learners is critical.

According to Blömeke and Delaney (2017), problems with Mathematics achievement persist not only in the Philippines but also in other countries. In the Philippine environment, educational modules in this order contain specific content and educational plan norms to enable understudies to produce the harmonious and numerical capacities needed to grasp introductory fine generalities. Still, low performance in this discipline persists.

The learners' performance in elementary Mathematics in the Division of Cagayan de Oro City requires enhancement. The result of the assessment is an index of the kind of medication we were making for learners to compete in global competition. Mathematical capability is in high demand currently, as it is a prerequisite for advancement. A strong grasp of fine proficiency will contribute to the development of man's awareness of possible remedies for issues that learners will face in day-to-day relationships and in the future. With this, the researcher is motivated to

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look into and find a solution to the foregoing difficulty. In agreement with the study, regular evaluation is essential to excellent tutoring since it helps preceptors prepare for fresh literacy and provides information about their learners' progress. To reach their maximum eventuality, learners must have their calculation problems linked as soon as possible.

Assessment should be viewed as a good experience that will help pupils during their posterior literacy rather than a bad one. Also, it gives learners the unequivocal and formative review they need to share laboriously in their continuing education (National Council for Curriculum and Assessment, 2015). It is on this basis that this study is conducted in Southwest II District, Cagayan de Oro City, where the learners' maturity is indigenous. The study aims to determine the assessment position of Mathematics learning among Grade VI learners. The idea is to make it possible for all learners, especially those from remote and distant barangays, both relatives and learners of all socioeconomic statuses, to grasp and admire Mathematics so they may use it in everyday life. In the midst of the epidemic, it used the tone-learning modules as the scholars' primary literacy resource.

Methodology

This study made use of the descriptive survey method of research. This is used to gather information about the current state of affairs and phenomena in order to describe what exists in terms of variables or conditions relevant to the study. It is used to determine the relationship

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between the study's independent and dependent variables. Data was collected using an adapted and modified questionnaire from the Self-learning modules of Grade 6 students. They would be analyzed and interpreted to describe the assessment results and responsibilities in Mathematics education.

The justification for the use of this method lies in the intention of the researcher to record, analyses and interpret the collected data through a questionnaire and a validated test in Mathematics VI learning assessment in 1st and 2nd Quarter.

The respondents of this study were the one hundred fifty (150) Grade 6 learners currently enrolled in Southwest II District of Cagayan de Oro City, S.Y 2022-2023. The Slovin's Formula, with a 7% margin of error and with a population of 575, was used to obtain the desired sample size for the study. Further, a stratified sampling procedure was utilized to get the percentage and the appropriate number of respondents in every school.

The instrument that was used in this study was a questionnaire that was adapted and modified from the DepEd Self- Learning Module to suit the needs and characteristics of the respondents. There were two parts in the instrument.

Part I dealt with the respondents' characteristics such as Sex, Cultural Orientation, Parents' Occupation, Parents' Highest Educational Attainment, Parents' Follow-up, Study Habits and Availability of Mathematics Textbooks at home.

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Part II elicited on the Mathematics Skills among Grade 6 learners on the areas of whole number, fraction, decimals, ratio and proportion. This is patterned and modified from Grade VI Self-Learning Modules in Mathematics used during Pandemic Time.

After collecting and recording the data gathered in this study, the researcher employed the following statistical tools: Descriptive statistics such as frequency, percentage mean and standard deviation were used to describe the variables in the study. Pearson Product Moment Correlation Coefficient (r) was utilized to determine the significant relationship between the Mathematics Skills and each of their characteristics.

Result

Table 1 shows the distribution of respondents' sex. Results display that the **highest** frequency of sex is **male** with 96 (64.00%). This means that majority of the respondents are males. It implies that there are more male learners enrolled in this School Year than female. This finding is aligned with the data in the Learning Information System (2022-2023), that there are more males than females registered in the system. As seen, one reason why women in rural areas are unable to attend school is because they are responsible for home and childcare responsibilities; these scenarios limit females' access to education and personal development possibilities. Males in these places are expected to attend school since they are expected to be the main source of income for the family. On the other side, the result shows that the **lowest**

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sex frequency are **females,** with 54 (36.00%). This indicates that there are fewer female learners than males. Learning Information System (2022-2023) supported the data that there are less in number of female learners this academic year. As observed, females in hinterland communities are involved in early marriage and are supposed to focus on marriage and family life, causing them to drop out of school. Furthermore, females may be involved in household or agricultural work, limiting their time and prospects for schooling.

Table 1. Distribution of Respondents in Terms of Sex

Sex	Frequency	Percentage
Male	96	64.00
Female	54	36.00
Total	**150**	**100.00**

Table 2 displays the distribution of respondents' cultural orientation with the **highest** frequency of 133 (88.7%) belonged to the **Higaonon**, which means that there are more Higaonon learners enrolled in the S.Y. 2022-2023 than other cultural orientation presented. It implies that schools in Cagayan de Oro City's Southwest II District are largely located in rural or remote places where Lumad people normally live, and the majority of these Lumads are Higaonon. As observed, Higaonon learners are more prevalent in the hinterland due to cultural preservation, limited access to urban schooling, and a strong sense of community and identity. On the other hand, the **lowest** frequency of 5 (3.30%) belongs to **Monobo** tribes. This means that at least one Manobo student was enrolled at the study's target school. It explains that the

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number of Manobo learners isn't veritably large. Only few of the said tribe settlers are living in Barangays where the study steered. As noticed, there are few Manobo learners in the school where the study was conducted, owing to their frequent poverty. Furthermore, Manobo students are placed far from the school, and their ability to regularly attend school is hampered by poor road networks and limited transit alternatives.

Table 2. Distribution of Respondents in Terms of Cultural Orientation

Cultural Orientation	Frequency	Percentage
Higaonon	133	88.70
Manobo	5	3.30
Bukidnon	6	4.00
Others (Muslim, Bagobo, etc)	6	4.00
Total	**150**	**100.00**

Table 3 illustrates the distribution of respondents in terms of their parents' occupations. Results indicate that the **highest** frequencies of 75 (50.00%) and 64 (42.70%) of the respondents' fathers and mothers were **farmers**, respectively. Because they reside in a mountainous environment, their main source of income is farming "mag-uuma," either on their own land or on other people's. Parents' occupation and efforts, as perceived, enable children to become more productive in their learning. As a result, parents' occupations, to some extent, determine the level of resources that they will be able to invest in their children's education. It goes on to say that parental occupation is thus regarded as ensuring or determining access to learning opportunities and resources. As observed, learners who perform better academically have parents who are employed as professional administrators and in higher clerical occupations.

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However, the **lowest** result in terms of fathers' occupation with the frequency of 1 (0.70%) is **Vendor.** This means they were not many parents with commercial vendors in the conducted area because of the mountainous terrain. As observed, it would be difficult to obtain basic resources such as water, electricity, and raw materials, making it unsuitable for this type of occupation. Vendors find it difficult to develop and maintain companies in such places due to the challenging terrain, lack of accessible roads, and constrained transit alternatives. Traditional subsistence farming or other locally relevant occupations are valued more and favored over this occupation.

On the other hand, the **lowest** result in terms of mothers' occupation is **Driver,** with frequency of 1 (0.70%). This means that driving jobs may be less common in this area. As noticed, the majority of the places where mountainous, and typically it has difficulty in driving conditions and terrain, which may be perceived as unsafe for female drivers and deter more women from choosing driving as a career owing to safety concerns.

Table 3. Distribution of Respondents in Terms of Parents' Occupation

Occupation	Father		Mother	
	Frequency	Percentage	Frequency	Percentage
Engineer	3	2.00	0	0.00
Teacher	0	0.00	0	0.00
Carpenter	16	10.70	0	0.00
Farmer	75	50.00	64	42.70
Vendor	1	0.70	16	10.70
Driver	24	16.00	1	0.70

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Businessman	4	2.70	13	8.70
Others (Brgy.Officials, Garbage collector, etc.)	27	18.00	56	37.30
Total	**150**	**100**	**150**	**100.00**

Table 4 unveils the distribution of respondents' characteristics in terms of parents' highest educational attainment. Results show that 53 (35.30%) fathers and 50 (33.30%) mothers of the learners were not able to graduate elementary education, respectively. This means that many of the learners' parents are elementary undergraduates. It implies that the learners' parents are unable to graduate from elementary school, and as a result, they are unable to assist their children in terms of mathematics academic matters. They struggle to support their children with any school-related activities. As observed, a parent's education is such a motivating force for a child that it paves the way for their child's future. It is a well-known fact that learners of educated parents are more confident, resourceful, and experienced. Furthermore, parental education is regarded as the most stable (permanent) aspect of socioeconomic status. It is well established that family plays an important role in a child's academic achievement and development.

Specifically, results show that the **highest** frequency of 53 (35.30%) of fathers' educational attainment is **Elementary Level**. This means that fathers in hinterland areas have limited educational attainment, often only finishing elementary school. As observed, the lack of nearby schools or the need to travel a considerable distance to do so can be a problem, especially if they originate from low-income families. Fathers in hinterland areas are more likely to leave

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school early because of familial obligations, financial strains, or the need to contribute to the household income through work or farming. On the other hand, the result shows that the **highest** frequency of 50 (33.33%) in terms of Mothers educational attainment is **Elementary Level**. This means that mothers had limited opportunities to further their education beyond the elementary level. As noticed, cultural norms in hinterland communities promote early marriage and childrearing for females, which can interfere with their educational pursuits. This can result in a higher number of mothers with limited education. They shoulder significant household and caregiving responsibilities. This can be a barrier to pursuing higher education, as they may prioritize their families' well-being over their personal educational goals.

On the other hand, the **lowest** frequency for both fathers, 15 (91.00%) and mothers, 4 (2.70%), were able to graduate at **College Level**. This means that only a few parents attain the highest level of education. As observed, cultural norms and common traditions in mountain communities can also play a significant role in parents' limited access to college education. It explains that the parents of these learners are reluctant to pursue their education due to a lack of financial support and resources. For parents, especially women, cultural expectations prioritize early marriage, taking care of the family, or physical labor over academic ambitions. Particularly, the result shows that the **lowest** frequency of 11 (7.30%) for fathers' educational attainment is **College Graduate**. This implies that fathers in the hinterland cannot seek a college education. Fathers in hinterland areas are known to start working young in order to support their families,

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which prevents them from continuing their education. This limited access makes it difficult for them to pursue higher education, especially if they cannot afford to relocate or commute to urban centers with educational institutions. Hinterland locations frequently lack colleges and universities within a reasonable distance. Male Higaonon communities value early labor and family commitments, which can obstruct their academic goals.

On the other hand, the result shows that the **lowest** frequency of 4 (2.70%) for mothers' educational attainment is also **College Level**. This indicates that mothers in this area were not college graduates. As preserve, cultural expectations or financial circumstances may lead to early marriages for girls. This profoundly impacted a woman's educational opportunities because they were expected to take on domestic and family responsibilities at a young age, reducing their chances of pursuing higher education. Lack of awareness about the importance of higher education or limited support systems to encourage individuals, especially women, to do so.

Table 4. Distribution of Respondents in Terms of Parents' Highest Educational Attainment

Occupation	Father		Mother	
	Frequency	Percentage	Frequency	Percentage
College Graduate	11	7.30	10	6.70
College Level	15	10.00	4	2.70
High School Graduate	30	20.00	30	20.00
High School Level	19	12.70	29	19.30
Elementary Graduate	22	14.70	27	18.00
Elementary Level	53	35.30	50	33.30

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Total	**150**	**100.00**	**150**	**100.00**

The data in Table 5 shows the distribution of respondents' parents' follow-up with an **overall** mean of 2.39 (SD=1.067), described as **Seldom**. This means that parents are not persistent in following up with their children, and it suggests that parents of Grade 6 students in Southwest II District conduct parental follow-up in a seldom manner. This could be because their parents are preoccupied with farming or other sources of income to meet their daily needs. As observed, parental factors such as a lack of interest in Arithmetic subjects and inadequate Mathematics comprehension were among the reasons why parents only rarely followed their children's lessons. Parental participation in a child's education is essential for influencing academic achievements and cultivating a love of learning, especially in the subject of Mathematics. Parents who have unfavorable mathematical experiences or attitudes may feel unprepared to help their child in Mathematics. Parental involvement in their child's math education can also be influenced by socioeconomic class. Lack of access to educational resources, such as textbooks or extra materials, may prevent parents from fully assisting their children's learning. And so, parents' involvement in their children's education, particularly in Mathematics, can be hampered by financial limitations.

The indicator **My parents assist me in my Mathematics projects** obtained the **highest** mean rating of 2.72 (SD=1.043), described as **Most of the Time**. This means that parental assistance is provided for all Mathematics projects and tasks. This implies that parental encouragement inspires pupils to work on projects. Math projects include worksheets and activity

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sheets, which are given to learners after the subject has been covered. Parents are more motivated to help their children with Mathematics projects because they perceive them to be helpful and realistic, as has been seen. Parental involvement in their child's education is widely acknowledged to improve academic achievement and overall learning outcomes.

On the other hand, the indicator **My parents provide me with Mathematics textbook every time I study** got the **lowest** mean rating of 1.94 (SD=1.076), described as **Seldom**. This means that one of the reasons parents were unable to support textbooks for their children was a lack of resources. The reason also is that most parents cannot find value in Mathematics textbooks because it is difficult for them to read and grasp Mathematics lessons. Many parents, however, find difficulties in providing these tools to help their children's Mathematics education. Financial constraints and low socioeconomic level are two of the key reasons parents may struggle to provide Mathematics books for their children. Textbooks and additional materials may be difficult to obtain for families with limited financial means.

Table 5. Distribution of Respondents in Terms of Parents' Follow-up

Indicators *My parents…*	Mean	SD	Description
check and follow up my assignment in Mathematics every day.	2.38	0.974	Seldom
help me in solving Mathematics problems at home.	2.32	1.076	Seldom
teach and guide me how to solve Mathematics problems	2.57	1.013	Most of the time
explains to me how to formulate number sentence in solving problems in Mathematics.	2.27	1.146	Seldom
provide me with Mathematics textbook every time I	1.94	1.076	Seldom

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study.			
inspire me to do my Mathematics homework.	2.59	1.127	Most of the time
encourage me to participate every Mathematics activity in school.	2.45	1.115	Seldom
ask updates about my Mathematics grades.	2.29	1.046	Seldom
assist me in my Mathematics projects.	2.72	1.043	Most of the time
help me when I achieve low in Mathematics.	2.39	1.061	Seldom
Overall	**2.39**	**1.067**	**SELDOM**

Legend:

3.26 - 4.00	At All Time / Very High	1.76 - 2.50	Seldom / Low
2.51 - 3.25	Most of the Time / High	1.00 – 1.75	Never / Very Low

Table 6 exhibits the respondents' characteristics in terms of study habits with an **overall** mean of 2.36 (SD=1.001), described **as Seldom**. This means that many students are reluctant to study Mathematics. As observed, learners' aversion to studying Mathematics is a multifaceted issue with multiple contributing variables. Addressing this issue involves a comprehensive approach that includes adjustments in teaching methods, curriculum design, and dealing with fear and negative impressions. Teachers can foster a greater appreciation and enthusiasm for Mathematics among students by cultivating a positive learning environment, emphasizing the relevance of the subject, and lifelong engagement with Mathematics.

The indicator **I study mathematics when there is examination** obtained the **highest** mean rating of 2.91 (SD=0.958), described as **Most of the Time**. This means that when an exam is approaching, students make time to study Mathematics. This implies that students are

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motivated to study Mathematics during examinations. As has been observed, students rush to study Mathematics during examinations because they believe they will get a higher score if they study the material that will be covered in the examination for the first time.

The indicator **I study Mathematics books during my free time** got the **lowest** mean rating of 1.95 (SD=1.012), described as **Seldom**. This means that students are not interested in reading mathematics books in their spare time. It implies that students in Grade 6 do things other than read books. This could be the reason for the lack of resources, and at their age, they simply want to play or assist their parents in farming to support the family. The result of the finding corroborates the opinion of Onu (2017), who opined that time allocation for study has to do the process of organizing one's activities to achieve the best results within the available times.

Table 6. Distribution of Respondents in Terms of Study Habits

Indicators	Mean	SD	Description
I study Mathematics even if the learning environment is not fine.	2.67	0.939	Most of the Time
I study Mathematics when there is an examination.	2.91	0.958	Most of the Time
I study Mathematics for 50 minutes and then take a 10-minute break.	2.25	0.948	Seldom
I study Mathematics when told by my parents.	2.38	1.109	Seldom
I prefer to study Mathematics than another subject.	2.47	1.053	Seldom
I study Mathematics before attending the class.	2.16	1.030	Seldom
I study Mathematics continually.	2.23	0.979	Seldom
I spent most of my time studying Mathematics.	2.07	0.939	Seldom
I study Mathematics books during my free time.	1.95	1.012	Seldom
I study how to solve Mathematics problems after class.	2.46	1.047	Seldom

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Overall	**2.36**	**1.001**	**SELDOM**

Legend:

3.26 - 4.00	At All Time / Very High	1.76 - 2.50	Seldom / Low
2.51 - 3.25	Most of the Time / High	1.00 – 1.75	Never / Very

As shown in Table 7 shows that the availability of mathematics textbooks has the **highest** frequency of 76 (50.7) with **Mathematics in Everyday Life** textbook at home. This means that majority of the respondents have Mathematics in Everyday Life textbook at home. This suggests that the majority of the Southwest II District's schools give their students access to the textbook Mathematics in Everyday Life as a source of information and instruction. As can be seen, the department provides more copies of the textbook in titled Mathematics in Everyday Life.

On the other hand, the book entitled **Mathematics in Action,** with frequency of 1 (0.70), got the **lowest** number. This means that this book is not usually used as a reference in Mathematics subject. It implies that this book is already outdated and not used anymore as a resource. As has been observed, the Department of Education has no longer distributed this book in every school. Textbooks are essential in Mathematics education because they provide structured content and exercises to educate both teachers and pupils. Textbooks that are well-designed provide a systematic way to learn mathematical ideas, making them an essential resource for curriculum planning and implementation.

Table 7. Distribution of Respondents in Terms of Availability of Mathematics Textbook at Home

Textbook	Frequency	Percentage
Mathematics in Everyday Life	76	50.70

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Let's Learn Mathematics	4	2.70
Mathematics in Action	1	0.70
Discover Math	5	3.30
Math for Life	2	1.30
Others (21st century skills, math success et. Al)	62	41.30
Total	**150**	**100.00**

Table 8 illustrates the distribution of learner's skills. Results show that **Whole Number** obtained the **highest** frequency of 162 (33.3). This means that the learner was already grasped the concept of whole numbers. It implies that students in Grade 6 have a basic understanding of the competencies shown in this domain. As observed, students in Grade 6 excel in the field of whole numbers because they find it simple to do so in the first three months of the academic year. Students' engagement and knowledge can be increased by using word problems that include whole numbers and real-world applications. When learners can apply their knowledge to real-world situations and connect mathematics with their everyday lives, they may think that whole numbers are simple.

Nevertheless, **Fractions** obtained the **lowest** frequency rating of 109 (20.37). This means fractions are challenging for learners to understand and solve. The learners in the Southwest II District's Grade 6 class do not understand the basic idea of fractions. As can be seen, learners perceive fraction issues to be challenging and complex, which prevents them from being able to solve them. Due to their abstract nature and the necessity of understanding part-to-whole relationships, fractions pose difficulties. The ways that fractions are introduced and taught greatly impact how well pupils grasp them. Effective teaching methods that address

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widespread misconceptions and establish a solid conceptual foundation must be adopted by educators.

Table 8. Distribution of the Assessment Results in Mathematics Skills

Competencies	Frequency	Percentage	Mean	SD	Description
Whole Numbers Visualizing and representing whole numbers up to 100000000	86	14.33	44.78	1.195	Developing
Solves routine and non-routine problems involving factors, multiples, and divisibility rules for 2,3,4,5,6,8,9,10,11, and 12.	76	19.00	33.79	0.995	Developing
overall			**78.57**	**2.190**	**Developing**
Fractions adds and subtracts simple fractions and mixed numbers without or with regrouping.	43	7.17	39.01	0.950	Beginning
multiplies simple fractions and mixed fractions.	30	6.00	17.61	0.771	Beginning
divides simple fractions and mixed fractions.	36	7.2	11.74	0.861	Beginning
overall			**68.36**	**2.582**	**Beginning**
Decimals adds and subtracts decimals and mixed decimals through ten thousandths without or with regrouping.	56	11.2	41.57	1.631	Beginning
multiplies decimals and mixed decimals with factors up to 2 decimal places.	48	9.6	20.36	1.318	Beginning

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divides: a. whole numbers by decimals up to 2 decimal places and vice versa b. decimals/mixed decimals up to 2 decimals places	27	4.5	12.30	1.003	Beginning
overall			**74.23**	**3.952**	**Beginning**
Ratio and Proportion expresses one value as a fraction of another given their ratio and vice versa	40	8.00	44.10	1.401	Beginning
finds a missing term in a proportion (direct, inverse, and partitive).	39	13.00	29.40	0.932	Beginning
overall			**73.50**	**2.333**	**Beginning**
OVERALL			**73.66**	**2.76**	**BEGINNING**

LEGEND:

90 % - 100 %	Advanced	75 % - 79 %	Developing
85 % - 89 %	Proficient	Below 75 %	Beginning
80 % - 84 %	Approaching Pruriency		

Table 9 illustrates the respondents' assessment level of Mathematics Learning Assessment, with an **overall** mean of 73.66 (SD=2.76), described **as Beginning**. This means that Grade 6 learners in Southwest II District perform as beginners in Mathematics. It implies that Grade 6 learners require more intervention in this subject in order to improve and develop the necessary skills and competencies. As can be observed, the students' performance in mathematics is low, which could be attributed to two (2) years of distance and modular education, during which the students received less guidance, less motivation, and had fewer follow-ups on their lessons. Teachers find it difficult to teach the topic and its competencies without returning

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to basic Mathematics skills. Students in grade 6 experience major cognitive and emotional changes. These developmental difficulties might affect their capacity to understand abstract mathematical ideas. Students' performance in mathematics may be hampered by difficulties with higher-order cognitive abilities like problem-solving and critical reasoning.

In particular, respondents' performance on the topic of **Whole Numbers** obtained the **highest** mean rating of 78.57 (SD = 2.190), described as **Developing.** This means that the learners had already comprehended the topic of whole numbers; this unit includes counting numbers, place value, and solving four fundamental operations, all of which are considered basic competencies for Grade 6 learners. It implies that Grade 6 learners master a little about the competencies reflected in this area. Based on observations, Grade 6 learners perform the best in the area of whole numbers because they find it easy to perform during the first quarter of the school year. Their cognitive development and mathematical readiness are important factors that affect how easily Grade 6 pupils comprehend whole numbers. As observed, pupils were more likely to have an easier time understanding whole number ideas if they had good basic mathematics skills and logical reasoning abilities from previous grades. Students in Grade 6 who have a good attitude about mathematics were more likely to tackle the subject with vigor and assurance. It is important to take into account a number of interrelated aspects, such as cognitive development, instructional strategies, early experiences, attitudes, and individual differences, in order to understand why Grade 6 learners, find whole number concepts in Mathematics easy.

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The respondents' performance on the topic **Fractions** obtained the **lowest** mean rating of 68.36 (SD=2.582), described as **Beginning**. This means that fractions are difficult for students to answer and comprehend. It implies that Grade 6 learners have not mastered and have not acquired the necessary competencies for this area. It implies that the fundamental concept of fractions has not visible to Grade 6 learners in the Southwest II District. As noticed, learners were unable to solve fraction problems because they found them complicated and difficult. For students in Grade 6, understanding fractions requires abstract reasoning and a knowledge of how different components of a whole work together. Grade 6 pupils encountered difficulties with the language and notation utilized in fraction concepts. Learners struggle with fractions because they have placed more emphasis on the memorization of procedures than developing a profound relational understanding of the concepts. Understanding the difficulties that Grade 6 students have when learning fraction concepts is critical for establishing effective interventions and improving mathematics instruction.

Table 9. Summary of the Assessment Results on Learners' Mathematics Skills

Indicators	Mean	SD	Description
Whole Numbers	78.57	2.190	Developing
Fractions	68.36	2.582	Beginning
Decimals	74.23	3.952	Beginning
Ratio and Proportion	73.50	2.333	Beginning
Overall	**73.66**	**2.76**	**BEGINNING**

Legend:

90 % - 100 % Advanced 75 % - 79 % Developing

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85 % - 89 % Proficient Below 75 % Beginning
80 % - 84 % Approaching Pruriency

Table 10 illustrates the relationship between the respondents' assessment level in Mathematics skills and their characteristics. Overall, the respondents' sex, the parent's follow-up, and their study habits showed a significant relationship on their Assessment of Mathematics Skills as indicated by the correlation r-value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis. This means that there is a linear relationship, although a weak one, between the learner's sex, parental follow-up, and study habits and their Assessment of Mathematics Learning. This suggests that learners' Mathematics learning assessment may be influenced by their sexual orientation, how frequently a parent checks in on them, and their study habits. It has been found that a child's motivation to learn mathematics depends on their sex. Data showed that females are more than males to thrive in this subject.

According to research, there are typically no innate cognitive differences between men's and women's mathematical aptitudes. However, cultural beliefs and gender conventions may have an impact on pupils' Mathematics motivation and self-confidence. Girls may accept preconceptions that present math as a male-dominated field more readily, which will likely result in a decline in interest and involvement. A more inclusive learning environment and improved math achievement for both sexes can be achieved by addressing these prejudices and giving equal chances to all pupils. Similar to this, when parents check in on where their children are, especially when it comes to school, it encourages them to study harder and pay attention in class.

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Supporting a student's learning in Mathematics is greatly aided by parental involvement and follow-ups. Parents that are involved in their children's education tend to instill a love of learning in their children. Students are more likely to feel motivated and secure in their mathematical ability when parents routinely check in on their child's development, offer academic support, and promote mathematical research at home. Last but not least, the children's study habits are also very important in determining how well they learn because they cannot receive high marks if they do not find time to study. Effective study habits and time management abilities are required for mathematical achievement. Students who adopt consistent study routines, set aside enough time for practice, and seek assistance when needed are more likely to learn mathematical concepts and retain information. Poor study habits, such as procrastination and inconsistent practice, on the other hand, can lead to difficulties in learning complex mathematical topics.

In particular, the respondents' cultural orientation showed a significant weak positive relationship on their Assessment of Mathematics Skills on the topic of whole numbers and decimals as indicated by the correlation r-value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis. This means that the teacher must educate the Higaonon tribes, who are the most dominant learners on contextualized bases. Use examples in teaching Mathematics that are based on how they use it on a daily basis or in practical ways; as a result, learners may feel that their ownership of mathematics motivates them to learn Mathematics. It implies that contextualized ethnomathematics may aid in identifying the

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relationship between school Mathematics and mathematical knowledge in a society that allows for imagination and the application of mathematics in daily life. As a result, cultural contextualization of Mathematics aids students' motivation to learn mathematics. To create culture-friendly Mathematics, curricula must shift away from traditional teaching-learning processes and toward ethnomathematics.

Next, the respondents' mother occupation showed a significant weak positive relationship with their performance on the Mathematics Learning Assessment on the topic of decimals as indicated by the correlation r-value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis. This means that mothers' occupations play a role in Mathematics learning assessment, as indicated by the fact that farmers are the most common occupation for mothers. They can use this knowledge to teach their children in decimal persi. The application is obvious because they will relate the topic to their occupation. It implies that parental occupation, particularly motherhood, has an impact on their child's academic performance. However, if the mother obtained the highest level of education and was able to obtain a high-paying job, it may have an impact on the children's grades. They discovered that current maternal occupational has positive associations with children's Mathematics scores, with stronger associations for sons. As discover a mixed relationship between early maternal employment and children's academic achievement, implying that the impact of early maternal employment on child development diminishes as children get older.

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Furthermore, respondents' fathers' highest educational attainment showed a significantly weak positive relationship with their performance on the Mathematics Learning Assessment on the topic of ratio and proportion as indicated by the correlation r-value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis. This means that the occupation of the father influences the child's mathematics learning assessment. The higher the compensated occupation of the father, the higher the pupils' scores or grades. This implies that the majority of fathers work as farmers, which, like maternal occupations, may help them when teaching their children mathematics topics, particularly ratio and proportion. It implies that parental occupation has a significant impact on how they assist their children in mathematics. The more knowledgeable those who are, the more information they can provide to their children.

Finally, the respondents' available Mathematics textbook at home showed a significant weak positive relationship on their performance on the Mathematics Learning Assessment on the topic of ratio and proportion and problem solving as indicated by the correlation r-value and probability value less than 0.05 alpha level, which led to the rejection of the null hypothesis. This indicates that having books available can aid in honing and developing a student's appraisal of their arithmetic learning. Department of Education gave the students a book so they could perform practical procedures. This suggests that textbooks are the most significant learning tool for elementary school Mathematics instruction. As seen, students who had a book at home had

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the best chance of doing well since they could review it and use references to further their comprehension of the subject

Table 10. Result of the Test on Relationship between the Assessment Results of Learners' Mathematics Skills and their Characteristics

Learner-Respondents' Characteristics	Mathematics Learning Assessment				OVER ALL
	Whole Numbers *r-value p-value*	**Fractions** *r-value p-value*	**Decimals** *r-value p-value*	**Ratio and Proportion** *r-value p-value*	*r-value p-value*
Sex	0.149 (WPR) 0.068 NS	**0.214 (WPR)** **0.009* S**	**0.272 (WPR)** **0.001* S**	0.101 (WPR) 0.217 NS	**0.193 (WPR)** **0.018 * S**
Cultural Orientation	**0.270 (WPR)** **0.001* S**	0.040 (NLR) 0.630 NS	**0.177 (WPR)** **0.030* S**	0.005 (NLR) 0.951 NS	0.047 (NLR) 0.571 NS
Father Occupation	0.039 (NLR) 0.634 NS	0.022 (NLR) 0.790 NS	0.086 (NLR) 0.297 NS	0.012 (NLR) 0.884 NS	0.025 (NLR) 0.765 NS
Mother Occupation	0.071 (NLR) 0.391 NS	0.118 (WPR) 0.152 NS	**0.324 (WPR)** **0.001* S**	0.105 (WPR) 0.199 NS	0.115 (WPR) 0.161 NS

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Father Highest Educational Attainment	0.011 (NLR) 0.894 NS	0.143 (WPR) 0.081 NS	0.014 (NLR) 0.866 NS	**0.237 (WPR)** **0.003* S**	0.081 (NLR) 0.322 NS
Mother Highest Educational Attainment	0.077 (NLR) 0.349 NS	0.014 (NLR) 0.869 NS	0.101 (WPR) 0.219 NS	0.036 (NLR) 0.658 NS	0.020 (NLR) 0.809 NS
Parent's Follow-up	**0.100 (WPR)** **0.025* S**	**0.359 (WPR)** **0.001* S**	**0.177 (WPR)** **0.030* S**	**0.320 (WPR)** **0.001* S**	**0.186 (WPR)** **0.022* S**
Study Habits	0.036 (NLR) 0.665 NS	**0.134 (WPR)** **0.012 S**	**0.208 (WPR)** **0.011* S**	**0.147 (WPR)** **0.027* S**	**0.109 (WPR)** **0.014* S**
Availability of Mathematics textbook at home	0.137 (WPR) 0.095 NS	0.081 (NLR) 0.326 NS	0.057 (NLR) 0.487 NS	**0.185 (WPR)** **0.024* S**	0.067 (NLR) 0.415 NS

Legend: *significant at p<0.05 alpha level S – significant NS – not significant

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Conclusion

Based from the findings of the study, the researcher was able to draw some conclusion: There are more male learners than female learners. The greatest number of learners in the Southwest II District are Higaonon. The learners were Beginning level in Mathematics skills, where whole numbers show a developing level and fraction shows a Beginning level. Parents' follow-ups are beneficial and necessary for a student's growth. It also helps to enhance student conduct in the classroom. The learners feel more driven to learn, and their grades increase. Learners feel more motivated in their classes when parents and teachers communicate more; as a result, their attitudes and self-esteem in the classroom increase. Study habits significantly impact test results and the academic performance of the learners.

Recommendations:

Given the findings and conclusions of the study, the following recommendations are presented:

1. Teachers should use inclusive teaching methods that accommodate different learning styles and abilities and gender. It can help to break down preconceptions and promote an inclusive learning environment. Encourage parents to engage in a positive Mathematics outlook

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at home to develop a supportive learning environment and children's confidence in the subject. Motivate learners to read more Mathematics books by providing enough textbooks and resources.

2. Mathematics teachers should implement an intensive remediation program and reteach common concepts to assess learners' difficulty in mastering the competencies, particularly in fraction like simplifying fraction, adding, subtracting, multiplying, and dividing dissimilar fractions.

3. Parents, Teachers and administrators should find time to do extend guidance to help develop the mathematical skills of learners in regards to their Cultural Orientation, and Parents' Educational Attainment.

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