

# REGRESSION ANALYSIS USING MEAN AND WEIGHTED SOME TO EXAMINE THE LEARNING SUPPORT ASSISTANTS' EDUCATIONAL METHODS

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## Abstract

The educational methods of learning support aides and the reading performance of students being supported by those aides. Purposive sampling was used to identify the respondents, and the results of that sample yielded 45 LSAs as respondents and 192 kids in Grade 2 as subjects. This was carried out in Kidapawan City District II, Kidapawan City Division, using a self-made questionnaire that was validated and verified its reliability using Cronbach's Alpha, which obtained a value of 0.941 as a result of the test.

It employed mean and weighted mean statistics, respectively, in order to define the degree of pedagogical practises of learning support aids and the reading performance of learners. In addition to that, it utilised the Pearson Product-Moment correlation as well as the multiple linear regression analysis in order to assess the hypotheses. The pedagogical methods of the learning support aids (LSA) involved intensive practise of teaching techniques, learning activities, and nurturing in order to improve the reading performance of learners. In addition, the practises of the LSAs in terms of teaching methodologies, learning activities, and nurturing capabilities showed a strong connection with the reading performance of the learners. The development of these three qualities was correlated with the improvement in their reading skills. Learners' reading performance in terms of word recognition was significantly impacted by the pedagogical approaches used by the LSAs with regard to the activities and development of skills for learning. The methods of instruction have a significant impact on the students' ability to comprehend what they read.

In conclusion, the direct engagement that the LSA had with the learners helped them to create beneficial study habits as well as socialise with their other classmates. Helping students connect with one another and learn, as well as giving them relevant comments, is a great way to boost students' reading abilities and their self-esteem.

**Keywords:** Pedagogical Practices, Learning Support Aides, Teaching Approaches, Content Delivery, Philippines.

## 1. INTRODUCTION

Education must continue amid the Covid-19 pandemic. In the new normal, teachers face new tasks, challenges, and expectations. Thus, relevant programs in schools must be employed to provide collaborative learning opportunities for learners' reading performance. The Basic Education-Learning Continuity Plan, mandates that parents, guardians, and other stakeholders play a larger role in supporting students' learning at home. As a result, the Department of Education recommended that teachers and parents hire Learning Support Aides (LSAs) to help with learning. (Briones, 2020). LSAs support the academic and social learning needs of children (Ward, 2011). They collaborate with teachers to provide learning opportunities that help students achieve their goals and improve their reading performance (MacArthur, 2009). Thus, the use of self-learning modules become a common phenomenon (Siperstein & Rickards, 2004).

Employing teacher aides to support students has become a common situation internationally. Their tasks can be extremely rewarding. However, these can also be stressful due to the challenges that likely add stress to their daily

work (Malmgren & Causton-Theoharis, 2006). Aside from the fact that many people are not aware of the rigorous preparation of LSAs to obtain more knowledge in understanding the learning needs of students, negative opinions surround them such as the misconception that the LSAs' work is easy and in tracking the reading performance of each learner (Tuncay 2019). Expectedly, reading skills must have been developed through the early education of every child to expand their vocabulary and learn about the world. Reading leads to success in the mastery of pre-literacy skills, including phonemic awareness (Luz, 2017). However, in the Philippines, the progress of students in reading comprehension has been lagging over the past decades (Citcheria 2016 & Cristobal 2015).

To reinforce the implementation of the BE-LCP during the pandemic, the DepEd issued the Engagement Guidelines that are enclosed of Learning Support Aides Services. DepEd ensures uninterrupted delivery of basic education services, which can be accomplished via

distance or blended learning, as well as home-schooling, with the goal of safeguarding the health and safety of both the teacher and learners (DepEd Memo No. 032, S. 2020).

Considering the views presented, the researcher conducted this study to determine the level of contribution of employing learning support aides. It determines the level of the reading performance of pupils based on their pedagogical practices.

## 2. STATEMENT OF THE PROBLEM

This study determined the correlation of pedagogical practices and learning support aides with the reading performance of pupils, which will specifically endeavor to respond to the following questions.

1. What is the extent of pedagogical practices of learning support aides in terms of teaching approaches, learning activities, evaluation, giving feedback, and nurturing skills?
2. What is the level of reading performance of pupils in terms of word recognition and reading comprehension?
3. Is there a significant relationship between the level of practices of learning support aides and the level of reading performance of the pupils?
4. Do the pedagogical practices of learning support aides significantly influence the learners reading performance?

## 3. THEORETICAL FRAMEWORK

This study anchored its concept on Behaviorism and Cognitive Theory in Educational assistants. Theory of behavioral learning believes that every teacher knows how every student responds in class. It can be difficult to get them to pay attention and stop distracting others because their behavior is usually difficult to control. It will assist you in learning classroom management techniques that will help you deal with challenging students. Learning about learning theories and recognizing that different methods and perspectives on how people learn are also extremely beneficial (Miltiadou, M. & Savenye, W.C., 2003).

The popular concept of behaviorism, or behavioral learning theory, focuses on the learning styles of students. According to behaviorism, all behaviors are learned through interaction with the environment. Behaviors are learned from their environment, according to this learning theory, and innate or inherited factors have very little influence on behavior. Teachers have complete control over their students' behavior. It also assists teachers in recognizing how a student's home environment and lifestyle influence their behavior, allowing them to examine it objectively and work to improve it (Zhou, M. & Brown, D. 2015). Due to a shortage of teachers, the Department of Education employs paraprofessionals. The majority of the time, paraprofessionals provide educational instruction and support to students with learning disabilities. They assist the regular teachers to provide physical care and management of students.

The primary Observable and measurable aspects of human behavior are the focus of behaviorism. Behaviorist learning theories emphasize changes in behavior as a result of the learner's stimulus-response associations.

Stimuli control our behavior. Prior to conditioning and psychological drives, an individual chooses one response over another (Parkay & Hass, 2000).

## 4. CONCEPTUAL FRAMEWORK

This study conceptualized those pedagogical practices of learning support aides relate to the learners' reading performance. The independent variables in this study are the pedagogical practices of learning support aides. The LSAs' teaching practices measured teaching approaches, learning activities, evaluation, giving feedback, and nurturing skills. The dependent variable is the reading progress measured in terms of word recognition and reading comprehension. It is assumed that pedagogical practices of learning support aides affect the reading performance of pupils (Blatchford et al., 2012).

Further, the best strategy for creating supportive and inclusive learning environments, according to support staff, is to ensure that all students, regardless of their needs, receive adequate support that is tailored to their difficulties and individual paces (Takala, 2007). Furthermore, the use of teaching assistants had the greatest positive impact on reading achievement, and the use of support staff had a positive impact on achievement in classes with special needs students (Brown and Harris, 2010).

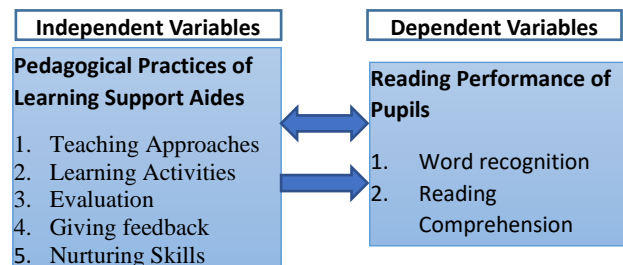


Figure 1 The schematic diagram showing the relationship of the variables

## 5. METHODS

### Research Design

This study utilized descriptive-correlation design with the use of survey instruments (Routledge, 2013). This design fits the objectives if the research is largely fact-finding and needs analysis, interpretation, and description of research from the point of view of the objectives and purpose of the study.

### Data Gathering Methods

The researcher prepared a letter addressed to the Superintendent of Schools Division's office requesting permission to conduct the study in the Schools of Kidapawan City Division. The granted permission was the passport of the researcher to coordinate with the principal together with the teacher to facilitate the conduct of the survey (Tuhoy, 2011). The researcher immediately proceeds in administering the survey questionnaire. The researcher gave enough time to the respondents to think and analyze every item in the questionnaire. After the data was completely gathered, these were tallied and tabulated properly in preparation for statistical analysis and interpretation.

### Participants of the Study

The researcher respondents were the Learning Support Aides (LSAs) and identified Grade 2 pupils of District II. Currently, there will be 45 Learning Support Aides and 387 pupils in School of Kidapawan City District II.

Table 1 Shows the number of Learning Support Aide (LSA) and Grade 2 Pupils within District 2 of Kidapawan City Division

Schools	# of Learning Support Aide	# of Pupils
1. CAJMES	2	20
2. Datu Ambas manib	1	4
3. Datu Igwas IPs (Elem & HS)	2	23
4. Datu Umpan IPs	1	20
5. Ginatilan ES	4	40
6. Gulanay Maangue ES	3	30
7. Habitat ES	5	40
8. Lake Agco IS	4	40
9. Lapan ES	2	16
10. Manongol CES	2	20
11. Meohao ES	2	20
12. Mu-an IS	5	20
13. Perez ES	2	20
14. Sayaban ES	4	27
15. Sibug MES	4	30
16. Sumayahon ES	2	4
<b>Total</b>	<b>45</b>	<b>387</b>

**Statistical Tools and Data Analysis**

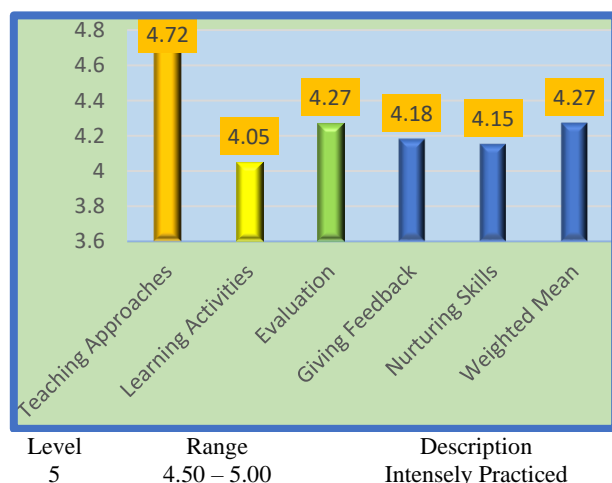
Considering the nature of the study which is descriptive-correlational, a quantitative approach is used in the analysis of the data (Patton, 2014). The data were tallied through a coding sheet and processed, analyzed, and interpreted using statistical tools with the assistance of the statistician. Mean and weighted mean (Garambas, 2011) were used in describing the pedagogical practices of learning support aides. It was also used in rating the reading performance of pupils.

Pearson Product Moment/ correlation method (Pearson, 1896) was employed to find out if there is a significant relationship between the levels of pedagogical practices of learning support aides to the reading performance of pupils. On the other hand, Multiple Linear Regression Analysis was used to determine the significant influence of the independent and dependent variables of the study.

**6. RESULTS AND FINDINGS**

**Summary of Results and Discussions**

*Research Problem No. 1*



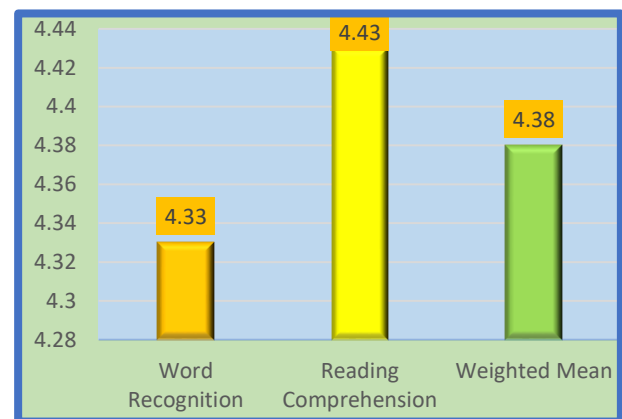
4	3.50 – 4.49	Practiced
3	2.50 – 3.49	Moderately Practiced
2	1.50 – 2.49	Slightly Practiced
1	1.00 – 1.49	Very Slightly Practiced

Extent of pedagogical practices of learning support aides in terms of teaching approaches, learning activities, evaluation, giving feedback, and nurturing skills.

To sum up the level of pedagogical practices of learning support aides, teaching approaches obtained the highest weighted mean of 4.72 described as intensely practiced followed with evaluation (4.27), giving feedback (4.18), nurturing skills (4.15), and learning activities (4.05) which are described as practice respectively. The pedagogical practices of learning support aides gained a general weighted mean of 4.27 which is described as practiced.

*Research Problem No. 2*

Level of reading performance of pupils in terms of word recognition and reading comprehension



Level	Range	Description
5	4.50 – 5.00	Excellent
4	3.50 – 4.49	Very good
3	2.50 – 3.49	Good
2	1.50 – 2.49	Poor
1	1.00 – 1.49	Very Poor

To summarize the level of reading performance of pupils, the graph revealed that reading comprehension obtained a 4.43 weighted mean described as very good and is higher compared to word recognition which obtained a 4.33 weighted mean having the same description. The reading performance of pupils obtained a general weighted mean of 4.38 which is described as very good.

*Research Problem No. 4*

Table 2 Relationship between the pedagogical practices of LSAs and the reading performance of pupils

Pedagogical Practices		Word Recognition	Reading Comprehension
Teaching Approaches	Pearson R	0.415**	0.418**
	Probability	0.004	0.004
Learning Activities	Pearson R	0.405**	0.438**
	Probability	0.005	0.002
Evaluation	Pearson R	0.178	0.226
	Probability	0.236	0.132
Giving Feedback	Pearson R	0.185	0.140
	Probability	0.219	0.355
Nurturing Skills	Pearson R	0.425**	0.414**
	Probability	0.003	0.004

\*\*Correlation is Significant at 0.01 level.

The significant relationship between the pedagogical practices of LSAs and the reading performance of pupils implies that the learning assistants focused their time on closely helping the learners to improve their reading performances. The LSAs also focus on their teaching approaches in reading by choosing the suited one for the learners. When the teaching approaches are meaningfully chosen based on the reading capability and grade level of learners, the reading performance of learners will have substantial results. This implies further that teaching approaches relate to the pupils' reading performance.

The concept explained in this study pertaining to the relationship between the pedagogical approaches in reading and pupils' reading performance matches with what Short et al., (2018) put forward that reading ability and language proficiency are associated. Learners tend to expand their vocabulary and develop higher-order thinking skills (Karademir & Ulucinar, 2017). The significant relationship between the pedagogical practices of LSAs and the reading performance of pupils implies that the learning assistants focused their time on closely helping the learners to improve their reading performances. Hence, they focus on the suited learning strategies and to improve reading comprehension, use text comprehension strategies. It includes awareness of using the structure of a text to aid comprehension (Folett, F., 2017). Learners are to be taught over a long period of time to develop comprehension skills since it's an important part of functional literacy (Stone, B., 2016).

The significant relationship between the nurturing skills of LSAs and the reading performance of pupils implies that the learning assistants focused on the best strategy in assisting the learners closely to improve their reading performances. They focus on the suited learning strategies and text comprehension strategies to develop reading comprehension. It includes awareness of using the structure of a text to aid comprehension (Folett, F., 2017). Learners are to be taught over an extended time with patience on the part of the teacher (LSA) or parents to develop comprehension skills since it is a critical component of functional literacy (Stone, B., 2016).

#### Research Problem No. 4

Table 3 Influence of the pedagogical practices of LSAs on the reading performance

Pedagogical Practices of LSAs		Reading Performance	
		Word Recognition	Reading Comprehension
Teaching Approaches	t-value	0.883	1.129
	probability	0.382	0.086
Learning Activities	t-value	1.364	1.571
	probability	0.049*	0.044*
Evaluation	t-value	-0.710	0.178
	probability	0.482	0.221
Giving Feedback	t-value	-0.731	-1.612
	probability	0.469	0.042*
Nurturing Skills	t-value	1.753	1.501
	probability	0.044*	0.046*

Taking the result separately, learning activities ( $t=1.364$ ;  $p=0.049^*$ ) and nurturing skills ( $t=1.753$ ;  $p=0.044^*$ ) appeared as the significant predictors of word recognition. The finding implies that learning activities and nurturing skills are vital factors in obtaining a useful foundation in word recognition. Further, the teacher selects the learning

activities that suit the interest and learning levels of pupils. It also denotes that by preparing the reading activities, the teacher knows the reading capacity of the learners and their reading experiences including vocabulary learning experiences.

The finding in this study supports the result of the study by Campbell (2015) that teachers and teaching methods have a significant impact on students' school experiences and outcomes. Moreover, he affirms that the teacher's commitment to nurturing the learners must be sustained. The variation in teachers of learning styles of specific groups of students must be identified.

In addition, taking the result separately, learning activities ( $t=1.364$ ;  $p=0.049^*$ ) and nurturing skills ( $t=1.753$ ;  $p=0.044^*$ ) appeared as the significant predictors of word recognition. The finding implies that learning activities and nurturing skills are vital factors in obtaining a useful foundation in word recognition. Further, the LSAs selects the learning activities that suit the interest and learning levels of pupils. They prepare reading activities based on the learners' reading capacity, reading experiences, and interests. This standpoint supports the perspective of Blatchford et al., (2009) that the LSAs must manifest care and physical support for children. It is their essential role to manifest support and care in varying ways depending on the needs of a child (Hammersly-Fletcher & Lowe 2011).

LSAs support children to develop self-help skills and social and communication skills The LSAs' role is to help children develop a range of key life skills that will allow them to integrate into society in the future, not just in school (Farrell, P., Alborz, A., Howes, A. & Pearson, D. 2010).

## 7. CONCLUSIONS

Based on the foregoing findings, the study concludes that the pedagogical practices of LSA would greatly help teachers and parents in facilitating the learning activities of children most especially the learners as they directly deal with learners. They help nurture the children in their learning habits and in socializing with their peers. The pupils feel comfortable with LSAs due to their nurturing ways of dealing with them.

Encouraging students' creativity, facilitating student interaction, asking students to read, giving suitable feedback, and fostering naturally self-esteem and resilience among learners are all important elements in leveraging learners' reading performance. Successful and effective practices of the LSA to the learners' performance depend upon the teaching approaches in reading by choosing the suited one for the learners, learning activities, and nurturing skills are to be chosen to enhance the reading performance of learners both in word recognition and reading comprehension.

Giving much weight to the provision of a conducive learning environment for children is necessary for learners to concentrate on doing their learning activities to obtain the desired skills in reading.

## 8. RECOMMENDATIONS

Considering the findings and conclusions. This study offers the following recommendations:

1. Principals and teachers must help the LSAs to monitor pedagogical practices of LSAs by giving technical assistance to them. This will help to improve their practices in handling struggling readers.
2. LSAs ought to continue to implement the pedagogical practices religiously because it gives a great impact on the pupils' reading progress. They should focus on vocabulary building, decoding, and phonemic awareness.
3. Learners should cooperate with the LSAs on the reading performance like decoding and listening skills.
4. Schools have to consider stratifying the LSAs facilitating skills such as enhancing learners reading performance.
5. Researchers are encouraged to conduct a similar study in other divisions including variables and indicators in order to validate the results of the study.

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