



## Factors Affecting Language Performance in Literacy and Numeracy Drive Test at Grade 3

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### ARTICLE INFO

#### Article History:

Received: February 24, 2024

Revised: June 23, 2024

Accepted: June 24, 2024

Available Online: June 25, 2024

#### Keywords:

Factors

Affecting

Language

Performance

Literacy Numeracy Drive

Standardized Test

#### Funding:

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

### ABSTRACT

The purpose of this study was to find out the factors that affecting language performance in literacy and numeracy drive test at Grade 3 in public schools of district Lahore and Sheikhpura. Two objectives were made for this research as their aim was to evaluate the performance of Grade 3 students in LND test and to find out the teachers' views about factors affecting language performance in LND test. The survey research method was used for this study. The sample of the study consisted on 317 LND students of 4 schools and 225 LND teachers of 75 schools which were obtained through simple random sampling. Three LND teachers from each school were purposely selected. Data collection was done by using a standardized LND test and a closed ended questionnaire based on the factors developed by the researchers themselves. Quantitative analysis was used to analyse the data while using descriptive statistics (mean and standard deviation) and independent sample t-test, was used to find out the difference between genders. The results of this research indicates that there was high mean score of four language factors such as home based, basic skills, students' role in learning language and teachers' related factors affecting students' language performance in LND tests. The implications of the present study is of great importance for the English school teachers as they will get a thorough insight of these factors that affects the language performance of students of grade 3.

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## 1. Introduction

The national strategy for enhancing literacy, known as Literacy for Learning and Life, aims to elevate the literacy standards of children and young individuals within the education system. This initiative underscores the potential of our youth to cultivate essential literacy skills, enabling them to fully engage in the educational process, lead satisfying lives, and actively participate as dedicated citizens in our information-driven society (Thakur & Kumar, 2011). The Government of Punjab is consistently pursuing commendable efforts in the realm of quality education. As a demonstration of this dedication, a system has been implemented to assess the performance of third-grade students known as the Literacy and Numeracy Drive (LND) test. This evaluation, carried out on a monthly basis, involves Monitoring and Evaluation Assistants (MEA) utilizing tablets, playing a vital role in measuring the advancement of students. According to Khalid, Bashir, and Amin (2019), MEAs randomly select 6 to 7 students from class 3 for testing during school monitoring. The LND test encompasses two main categories: Literacy, which includes assessments in languages such as Urdu and English, focusing on the ability to comprehend and utilize spoken language, as well as proficiency in reading, writing, and digital media (Karakolidis, Duggan, Shiel, & Kiniry, 2021). The foundation of literacy serves as the initial stride towards liberation, freeing individuals from societal and economic constraints. It is a prerequisite for personal and collective advancement, playing a pivotal role in diminishing poverty and inequality while fostering prosperity. Additionally, literacy plays a crucial role in addressing issues related

to nutrition and public health, as highlighted by Kamyab, Mohammadi, Jahani, Salimi, and Shafiei (2021).

Moreover, literacy is intricately linked to language and learning, with conceptual frameworks connecting the development of fundamental skills to the broader societal characteristics of an individual and the community (Steen, 2001). In the realm of education, student performance stands as a paramount concern for educators. The aim is to effect positive change on local, regional, national, and global scales. Teachers, trainers, and researchers consistently seek to explore variables that significantly contribute to the quality of student performance. These variables, both internal and external to the school environment, exert influence on the academic achievements of students (Crosnoe, Johnson, & Elder Jr, 2004). There are many factors that influence student performance (Waters & Marzano, 2006). Students often encounter challenges in mastering fundamental concepts, particularly in basic reading and writing. Language factors further contribute to these difficulties, influencing students' abilities in reading, comprehending, constructing meanings from words and sentences, and acquiring language skills. Furthermore, the influence of parent training becomes apparent through the consistent use of English as a means of communication within the household. Given the interdependence of these factors, the researcher intends to conduct a study examining the effects of language-related variables on the academic performance of students in the Grade 3 Literacy and Numeracy Drive (LND) test.

## **2. Review of Related Literature**

The Literacy and Numeracy Drive (LND) initiative stands as a joint project involving the Punjab government and the Punjabi Information Technology Council, aiming to evaluate school performance. In this initiative, each school is represented by a maximum of six students chosen from different classes. Literacy, a multifaceted concept, encompasses the proficiency, confidence, and inclination to use language effectively for comprehension, expression, and communication in daily life (Khatib, 2015). Furthermore, calculation involves the adeptness, assurance, and readiness to process quantitative or spatial information for making informed decisions in various aspects of daily life. In the contemporary context, literacy extends beyond traditional reading and writing skills. It includes the capacity to interpret and create diverse texts with accuracy and confidence, demonstrating control and efficiency in learning both within and outside the school environment. This proficiency in literacy is crucial for meaningful participation in work and society. Texts, ranging from every day and functional language to more intricate and technical language used in education and academic study, form an integral part of literacy in modern life National Institute for Development Education (Karakolidis et al., 2021). The ability to read and write is foundational to an individual's holistic development, contributing to a fulfilling life and enabling active participation in society (Hafees, 2017). The LND initiative, through its assessment of literacy and calculation skills, seeks to gauge and enhance students' capabilities in these vital areas, reflecting a commitment to the broader goals of education and societal engagement. Literacy comprises various sub-skills, including phonology, comprehension, translation, confidence, mental acuity, expression, writing, and mathematics. Achieving proficiency in these sub-skills necessitates the development of effective study habits, turning students into adept learners (NCHD, 2000). Mitra (2008) describes the 3R: approach to literacy: clear reading, involving a pronunciation rate of 30 words per minute and understanding simple paragraphs; comprehension, which involves interpreting signs, following basic daily life instructions, and reading newspapers at a rate of 7 words per minute; and writing, including blogging at 5 words per minute. Proficiency in writing entails mastering lettering style, sentence and paragraph spacing, alignment, independent composition of short messages and applications, and the ability to complete various forms relevant to daily life (Vietnam International Conference and Exhibition on Control and Automation, 2017). Mastery of these skills contributes to a comprehensive literacy skill set, empowering individuals to navigate various aspects of life successfully.

### **2.1. Factors Affecting the Performance of Language**

The home serves as the primary environment where students, whether residing with their parents or in boarding facilities, are nurtured and cared for. It is within the home that students acquire the societal rules and values of their surroundings. The family, a fundamental social unit, plays a crucial role in providing early motivation and experiences for children (Geske & Ozola, 2008). At home, parents and caregivers play an instrumental role in fostering English language proficiency among students. This involves encouraging them to articulate themselves effectively,

providing guidance on English homework, ensuring correct usage and pronunciation, and engaging in English conversations (E, 1995). This home-based language support establishes a strong foundation for self-expression and self-confidence, enabling students to communicate effectively in English, both in public settings and within the academic environment. The economic circumstances of parents are also recognized as influential in the academic performance of English-speaking students, with an emphasis on parents' capacity to provide the necessary facilities and resources for effective language teaching (United States Department of Labor, 2006). Reading, a fundamental literacy skill, holds significant importance. It opens doors to new worlds and opportunities for both children and adults. The ability to read facilitates the acquisition of knowledge, enjoyment of literature, and engagement in everyday activities like perusing newspapers, job postings, positions, maps, and more. While most individuals naturally learn to read in their mother tongue, the home environment plays a crucial role in extending this proficiency to additional languages, such as English (Bernhardt, 2000).

The process of learning to read varies among individuals, with some acquiring this skill effortlessly during childhood, while others, both children and adults, may require additional assistance. Some individuals may be in the process of acquiring literacy in a second, third, or subsequent language, unique needs of different students. Research suggests a significant shift from learning to read in one language to developing literacy skills in a second language (Kamil, Mosenthal, Pearson, & Barr, 2016; Taylor, Pearson, Clark, & Walpole, 1999). The significance of reading extends beyond the individual; it plays a central role in the broader reading and writing community (Fusaro & Shibley, 2008). Azikiwe (2008) argued the pivotal role of student engagement in language learning, stressing the influence of a student's interest and regularity in studies. Regular student engagement tends to yield better results compared to irregular participation. The interactions between adults and children are influential in language learning, with peer interactions forming a foundational aspect of literacy development. Social activities, including the presence of computers, television, and radio in students' homes, have been shown to positively impact language performance. Ekanem (2004) states the importance of a harmonious home environment in fostering emotional stability for a child, influencing their academic performance throughout their school life. Given these considerations, the researcher delves into an in-depth study of the impact of individual parenting circumstances, including family abandonment, death, widowhood, and a healthy home environment, on the academic performance of pupils in the English language. This approach aims to provide a nuanced understanding of the various factors influencing language acquisition and academic success. The role of teacher is crucial in facilitating language and enhancing overall learning outcomes for students. Research by Krasin (2005) found that students whose parents had received education tended to perform better on standardized tests compared to those whose parents had not. Educated parents are better equipped to engage in effective communication with their children regarding schoolwork, extracurricular activities, and information presented at school. This ability to communicate enables them to assist their children in navigating their academic responsibilities and fosters a positive environment for educational engagement (Fantuzzo, Tighe, & Childs, 2000). In essence, the involvement of educated parents in the educational process contributes significantly to the academic success and overall development of students.

### **3. Methodology**

The study was quantitative in nature and survey was used for data collection from the sample of the study. Standardized LND test was collected by the students of grade 3.

#### **3.1. Population of the Study**

The target population were public schools of Lahore and Sheikhpura districts.

#### **3.2. Sample of the Study**

The sample were consisted of 317 students from four public schools of Lahore and Sheikhpura district for LND test. And questionnaire data were collected from 225 teachers from 75 schools of both districts while using purposive sampling. The conveniently and multi stage random sampling technique were used to select sample.

#### **3.3. Instrumentation**

Two instruments were used for this research, one was LND test for students and the other was questionnaire for teachers.

### 3.4. LND Test

A standardized LND test having 100 marks was selected.

### 3.5. Questionnaire

A questionnaire was based on LND test and it was developed on five points Likert scale by the researchers. The questionnaire consisted on two parts first was about demographic variables such as name, school, gender and second part consisted on 20 items which were divided into sub factors such as home based, basic skills, students' role in learning language and teacher related factors were related to language performance.

### 3.6. Validity and Reliability of the Instruments

The instrument reliability was checked by Cronbach's Alpha and it was found 0.919. The instruments were validated by expert opinions

### 3.7. Data Collection

Data was collected personally through questionnaire. Ethical considerations were diligently observed during the data collection process. All collected data were treated with utmost confidentiality and utilized exclusively for research purposes.

## 4. Data Analysis

Data was analyzed by using descriptive statistics in the form of (mean, standard deviation), An Independent-sample t-test was to find out differences between genders.

### 4.1. Results and Discussion

The summary of data is presented and discussed in following section.

**Table 1: Percentage of students' performance of LND test**

Criteria	Good	Average	Poor
Number of students	16	68	233
Percentage	5%	21%	74%

This table illustrates the scores achieved by students in the LND test, reflecting their performance. The research question "Is the performance of LND test of Grade 3 students is according to the criteria as purposed by Government of Punjab?" related to students' test scores. The proposed benchmark for marks was set at 81%. The data on the number of students and their respective percentages suggest that only 5% of students demonstrated strong performance, achieving high marks in the LND test. Consequently, the performance of Grade 3 students in the LND test does not align with the specified criteria. The study's findings highlight that the performance of Grade 3 students in the LND test falls below the expected standard. Specifically, it was observed that merely 5% of students attained commendable scores in the test, indicating a deviation from the criteria outlined by the Government of Punjab.

**Table 2: Mean score of teachers' views about the factors affecting language performance of Grade 3 students in LND test**

	Mean	Std. Deviation
Home Based	4.07	.585
Basic Skills	4.14	.546
Student Role	3.99	.533
Teacher Related	4.04	.538

N=225

This table tells the mean scores of all four factors influencing the language performance of Grade 3 students in the LND test. The mean scores of three factors were gone into strongly agreeing option with 4.14 which falls in highest category. Its mean that majority of teachers were strongly agree on this. Only one factor mean score were gone into 3.99 its means that majority of were agreeing on agree option. The finding of the research indicates that all factors are very important and have a great affect on language performance of Grade 3 students.

**Table 3: Independent Sample t-test on language performance in LND test for Gender Difference**

	Gender		Female		T	df	p
	Male	SD	Mean	SD			
Language Proficiency	4.10	.353	4.07	.417	.573	223	.567

Table 3 indicates that there was no statistically significant difference between males and females in terms of language performance in the LND test ( $p > .05$ ). To know the difference between male and female teachers through data analysis t-test was used to check language performance in LND test. This table illustrates that equal variance is assumed, and there is no significant difference in scores for males ( $M = 4.10$ ,  $SD = .353$ ) and female, ( $M = 4.07$ ,  $SD = .417$ );  $t (.573)$ ,  $p = .56$  (two-tailed).

## 5. Discussion

In the present study aimed to investigate the factors which are affecting language performance in LND test were found in educational institutions. Language factors were divided into sub categories and significantly affected on the performance of LND test. The first research question was "Is the performance of LND test of Grade 3 students is according to the criteria as purposed by Government of Punjab?" This research question was rejected and showed that the scores of students were not according to the required criteria. The second research question what are the teachers' views about the factors affecting language performance of Grade 3 students in LND test? About this research question there were found four factors like home based, basic skills, student role and teacher related. All factors were gone into strongly agree option. The results of these factors indicates that all the factors have a great affect on language performance like wise Ogbemudia and Aiasa (2013) explored that influence of home language has positive significant effect on students' language proficiency. Suleman and Gul (2015) find out those students' related factors affecting students' performance. Hafees (2017) explored that the role of teachers in primary education is significant.

## 6. Conclusion

It was concluded on the basis of findings that the performance of Grade 3 students in LND test was not up to the mark. The criteria of "Good" performance in LND test is above 80% as proposed by the Government of Punjab. But findings indicated that only 5% students of Grade 3 could fall in these proposed criteria about LND test. The researchers conducted the same LND test which was conducted by the monitoring officers for the month of November 2019. The analysis clearly revealed that language factors affected the language performance of LND test. In this regard it was concluded that home language factors affected on the learning a new language. The results also indicated that basic skills (reading, writing, listening and speaking) factors affected language performance in LND test. Similarly, students' role in learning language also affected language performance in LND test. Finally, the findings showed that teachers' related factors in teaching a language was also affecting language performance in LND test.

### 6.1. Recommendations

1. Parents and teachers should concentrate on exploring language factors such as home language, basic skills, students' role, and teachers' related factors. These aspects significantly impact the language performance reflected in the LND test scores for Grade 3 in public schools.
2. To enhance language performance in the LND test, teachers are encouraged to instruct and teach students using the target language.
3. It is recommended that a thorough and high-quality study be conducted to comprehensively understand the causes and propose effective solutions for the language factors influencing the performance of the LND test.
4. To validate the findings of the current research, a similar study could be conducted in various districts of Punjab.



## References

- Bernhardt, E. B. (2000). Second-language reading as a case study of reading scholarship in the 20th century. *Handbook of reading research*, 3, 791-811.
- Crosnoe, R., Johnson, M. K., & Elder Jr, G. H. (2004). School size and the interpersonal side of education: An examination of race/ethnicity and organizational context. *Social Science Quarterly*, 85(5), 1259-1274. doi:<https://doi.org/10.1111/j.0038-4941.2004.00275.x>
- E, J. (1995). *Multilingualism*. London: Pnglin Books Ltd.
- Ekanem, T. (2004). The school as a substitute home in QI Obinaju (Ed), Theory and Practice in Early childhood Education. *Calabar: Bon Ltd*.
- Fantuzzo, J., Tighe, E., & Childs, S. (2000). Family involvement questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of educational psychology*, 92(2), 367.
- Fusaro, J. A., & Shibley, I. A. (2008). Learning Disabilities and Reading/Mathematics Achievement of Eighth Graders in the USA. *Journal of the International Association of Special Education*, 9(1).
- Geske, A., & Ozola, A. (2008). Factors influencing reading literacy at the primary school level. *Problems of Education in the 21st Century*, 6, 71.
- Hafees, S. (2017). Factors affecting the quality Of primary education In Kerala. *Research Scholar, School of Foreign Languages, IGNOU, New Delhi, ISSN(2319-7129)*.
- Kamil, M. L., Mosenthal, P. B., Pearson, P. D., & Barr, R. (2016). *Handbook of reading research, Volume III*: Routledge.
- Kamyab, R., Mohammadi, M., Jahani, J., Salimi, G., & Shafiei, M. (2021). Principal's Educational leadership literacy in Education System: A Mixed-method Approach. *School Administration*, 9(1), 539-498.
- Karakolidis, A., Duggan, A., Shiel, G., & Kiniry, J. (2021). Educational Inequality in Primary Schools in Ireland in the Early Years of the National Literacy and Numeracy Strategy. *The Irish Journal of Education/Iris Eireannach an Oideachais*, 44, 1-24.
- Khalid, M., Bashir, S., & Amin, H. (2019). Effectiveness of Literacy and Numeracy Drive at primary level in Punjab: A trend analysis. *Journal of Educational Research*, 22(2), 169-183.
- Khatib, D. F. (2015). *Focused teacher professional development to improve the literacy performance of middle school students in Alberta, Canada*. City University of Seattle,
- Mitra, A. (2008). India Non-formal Education: Country Profile Prepared for the Education For All. *Global Monitoring Report*.
- NCHD, N. I. o. C. H., & Human Development (US). (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. Washington, DC: Government Printing Office. Retrieved from
- Ogbemudia, M., & Aiasa, M. (2013). Influence of home environment on the academic performance of primary five pupils' in English Language in Orhionmwon Local Government Area of Edo State. *Merit Research Journal of Education and Review*, 1(5), 120-125.
- Steen, L. A. (2001). *Mathematics and democracy: The case for quantitative literacy*: NCED Princeton, NJ.
- Suleman, Q., & Gul, R. (2015). Challenges to Successful Total Quality Management Implementation in Public Secondary Schools: A Case Study of Kohat District, Pakistan. *Journal of Education and Practice*, 6(15), 123-134.
- Taylor, B. M., Pearson, P. D., Clark, K. F., & Walpole, S. (1999). Center for the improvement of early reading achievement: Effective schools/accomplished teachers. *The Reading Teacher*, 53(2), 156-159.
- Thakur, J., & Kumar, N. (2011). DES, AES and Blowfish: Symmetric key cryptography algorithms simulation based performance analysis. *International journal of emerging technology and advanced engineering*, 1(2), 6-12.
- Vietnam International Conference and Exhibition on Control and Automation, V. (2017). Numeracy learning progression. Retrieved from <http://vcca.engineer/vcca2017/publication/>
- Waters, J. T., & Marzano, R. J. (2006). *School district leadership that works: The effect of superintendent leadership on student achievement*: Mid-continent Research for Education and Learning (McREL) Denver.