

Effectiveness of Literacy and Numeracy Drive Program on Student`s Achievement; A Study of Public Primary School Multan

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Abstract: This study aimed to discuss the effectiveness of the Literacy and Numeracy Drive (LND), used in Public Primary Schools of Multan, Punjab, Pakistan. This tablet-based application is currently used to teach Grade 3 students for learning, English, Urdu, and Mathematics. The officials of the Education Department including the Monitoring Evaluation Assistant (MEA) visit every public school once a month and select 8-11 students randomly, to evaluate them on their tablets by recording answers to multiple questions related to English, Urdu, and Mathematics. After reevaluation, MEA upload the results on the official portal shortly. For this purpose, quantitative research was conducted in which 180 participants from Primary Public Schools of District Multan, were randomly selected to measure the effectiveness of LND. The result shows that the LND application was not that effective due to the issue of non-availability of technology at home towns, language, content, and assessment. Furthermore, students are more attracted to game-based learning; which consists of animation, phonics, interactive interface relevant content, and assessment.

Keywords: Student Perspective, Literacy and Numeracy Drive, EFL Beginner, Game-Based Learning

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1. Introduction

As of the twenty-first century, the globe has placed a strong emphasis on excellence in education, favoring it over other goals for education growth and improvement. Pakistan is signed to the Dakar Forum, Education for All (EFA), and the Millennium Development Goals (MDG). Pakistan's educational system is still in poor shape despite these promises and initiatives. Most children are not facilitated by educational reforms, and Pakistan has committed to eradicating illiteracy while there is a big gap between statement and practice Habib, [1]. The skills of literacy and numeracy are closely linked to high-quality education, particularly in the academic career, these abilities must be acquired. A thorough examination of a person's literacy and numeracy

proficiency level provides insight into the state of high-quality education. As part of the Dakar Framework for Action 2000, participants committed to enhancing all aspects of education and learning, to ensure proficiency in literacy, math, and essential life skills. The acquisition of fundamental skills such as literacy and numeracy is necessary to improve the quality of primary education Bilal, [2].

Students are now interacting with web-based games due to the development of new, modernized, and internet-based innovations. It is certainly possible for students to access the internet and register for specific types of online games to participate in interactive learning activities. An unfinished project in Pakistan is investigating how students use technology for both instructional and non-instructional purposes Funa & Talaue, [3].

Students of the modern day should be appropriately referred to as computerized locals or the net-age, as their use of technology in their daily lives has grown to such an extent. It is evident that there is a need to demonstrate to students, how modern innovations in teaching sentence construction using visual aids and pictures have been used by teachers for a considerable amount of time to teach the teaching of any language. Students use technology to improve their learning and work by using it to increase their associations with resources outside of the institution and to better understand the world Krushielnicki, [4].

The expansion of the tablet market in Pakistan has affected nearly every aspect of life, including education. It is important to remember that measuring the impact of these devices' introduction is required for policymakers to improve these devices' effectiveness in the future. Thereby, the purpose of this study is to determine how beneficial these gadgets are for the students of Public Primary Schools. According to UNESCO, other devices that can be used as mobile learning and teaching tools include laptops, Netbooks, tablets, smartphones, e-readers, portable game consoles, portable audio players, and consoles. One way to define Mobile Applications for Language Learning (MALL) is the use of mobile phones for language learning and teaching. These devices have opened up opportunities in the community that are relevant to language teaching Habib, [1].

1.1 Significance of the Study

The English language is as vital to states all over the world as blood is to their veins. As a result, the requirement for proficiency in the English language has grown to the point where modern society's citizens must meet certain requirements to succeed in their scholastic and professional endeavors.

To determine the qualifications and training methods for English language teachers to teach English, 23 were surveyed in 89 countries throughout the world. The survey's findings showed that teachers lack the specialized training needed to teach English and that this is a global issue rather than one that only affects one nation or region Hanif, [5].

The Pakistani government sought to improve the province's governance, quality, and accessibility of education to meet its goals. By regularizing the agents liable for performance, administrative leadership, and accountability measures are contributing to improved educational results.

The 18th Constitutional Amendment, ratified in 2010, abolished the Federal Ministry of Education and devolved education to the provinces. Planning, strategy development, policy formulation, and program execution fall under the authority of provincial governments. The School Reform Roadmap seeks to ensure that all students in the province have adequate access to high-quality education because the Punjab government has demonstrated strong interest in the EFA goals. The Punjab government has implemented several significant programs, including Danish Schools, the Punjab Educational Foundation (PEF), and the Punjab Education Endowment Fund (PEEF) Muzaffar, [6].

In a different research, children learned English vocabulary using both verbal and visual annotation. The post-tests final results demonstrated that learners with a higher visual and lower verbal recall capacity benefited from the graphical annotation's assistance with word recall Lim, [7]. To practice grammar and vocabulary, a researcher created a straightforward mobile application for peers. The application consisted of language, idioms, and short sentences that appeared on the page. After the respondent typed their response, the screen displayed the correct or incorrect response, and the discussion continued with the correct response Heil, [8]. This research was conducted previously in Rawalpindi, Faisalabad, and Sheikhpura but not in Multan, that's why Multan is not familiar with this research.

1.2 Objectives

1. To investigate the challenges under retard effect of the current system for students in Public Primary Schools, Multan, Punjab.

1.3 Research Questions

2. What are the challenges under retard effect of the current system for students in Public Primary Schools, in Multan, Punjab?

1.4 Research Method and Technique

The data was collected quantitatively, using a descriptive survey design. The data was collected from respondents. The questionnaire was developed to inquire about the effectiveness of the Literacy and Numeracy drive (LND) with the descriptive option; "yes or no" answers because respondents do not have such understanding competence, using the Likert scale option after little guidance by the researcher.

1.5 Findings

Table: Age of Respondent

Age (Respondent)		
Age	Frequency	Percentage
5-7	10	4%
8-10	155	76%
10-13	15	20%

According to Table 1, the Age of 6 responds to 4%, while the majority of respondents are under the age of 10 having a higher percentage as well 76%, lastly, only 20% belong to the age of fewer than 13.

Table2: Gender of Respondent

Gender (Respondent)		
Gender	Frequency	Percentage
Female	95	58%
Male	85	42%

According to Table 2, female students are doing more responses than male students, out of 18085 are male respondents while 95 are female students. So the majority of respondents were female students.

1.6 Statistics of Technological Improvement

Figure 1 Source: Technological Improvement

Technological Improvement					
Sr.	Item	Frequency		Percentage	
1	Do you have a PC at your home to use?	Yes	No	Yes	No
		60	120	33.33%	67.7%
2	Do you have a smartphone to use?	53	127	29.44%	71.6%
3	Do you have a regular Classroom activities?	21	159	11.6%	89%

1.6.1 Interpretation

The Figure 1 source described that students of Public Primary Schools are not going to facilitate as much because the majority of respondents show their opinion regarding denying position towards technical advancement and management, which shows how the

Academic work is not reformed as well. In the first item of the question, 33% of students agree while 67% of students do not which means the majority do not find it to be beneficial due to the poor structure of academic performance as well.

1.7 Statistics of Quality Improvement

Figure2Source: Quality Improvement

Basic Questions about Quality Improvement					
Sr.	Item	Frequency		Percentage	
1	Do you believe that LND is effective?	Yes	No	Yes	No
		53	127	29.33%	71.7%
2	Do you believe that it Enhances learning?	21	159	11.44%	89.6%
3	Do you believe that it Enhances creativity and teamwork?	30	150	16.6%	84%

1.7.1 Interpretation

According to Figure 2, the quality not going to improve because it's not doing to show such effectiveness, which seems above in statistics. The majority of the students are not satisfied with such software programs because of the improper availability of technology. In the first question

where students ask about effectiveness, they do not support as much that's why the percentage of denying is 71% that shows LND does not support as such because it needs first the implementation of technical availability.

1.8 Required Features in Literacy and Numeracy Drive (LND)

Figure sources: Feature required in LND application

Required Features in LND		
Items	Responses	Percentage
Do you think interactive screens are effective for learning?	158	87%
Do you think activity-based exercises are not available in the LND application?	163	90%
Do you think visual learning is not available in this application?	173	96%
Do you think voice application	151	83.9%

1.8.1 Interpretation

Figure 3 source required features in LND shows that most of the respondents are not completely satisfied because some features required or applications need to be modified or updated. In questionnaire 1, when asked about interactive screen or visualization availability the students denied it, which means they expect more from it. That's why the percentage is high, and why the Department of Education is responsible for reforming it.

2. Conclusion

To understand the requirement, it confirmed that LND applications were not very effective for students of Grade 3.

The majority of the students belong to rural areas where they are not aware of portable technology, or if they were aware of it they are not allowed to use it. The language is also a major concern of difference, including the mother tongue which makes it difficult to learn English, and Urdu as such, that'll show students get offended so soon. The other reason is method of assessment is not suitable, and that's why the results after not show any improvement.

And features of the application are not modified as well, it needs to be updated with various features like visualization, voice pronunciation animation, etc.

3. Recommendations

After surveying students, several problems were identified and students also recommend some

improvements as follows:

1. A game-based learning program should be used to enhance the user experience. It should be explained that the game's difficulty shouldn't affect usability and that usability must be the primary consideration when developing a game-based learning application.
2. Educational interventions that enhance classroom instruction have a greater impact on student learning than those that focus on structural or accountability issues.
3. The fact that most students are more involved in all of the activities taught utilizing the modern method as opposed to the traditional method approach is another significant benefit of employing LND.

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