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Comparative Analysis of Literacy Skills, Writing and Numeracy Attained by the Students of Formal and Non-Formal Schools at Primary Level in Islamabad Capital Territory

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Abstract

The aim of the study was to compare the quality of literacy skills of 4th grade students at Formal primary schools and non-formal basic schools in Islamabad. A comparative analysis was conducted to compare the writing and numeracy skills among the 4th grade students of Formal and Non-formal schools. The research was descriptive in nature. The population of the study consisted of 100 students (50 students from formal primary school and 50 students from non-formal basic school).All the students taken for study were girls. The researchers adopted purposive sampling technique and collected data through a self-developed achievement test. The study concluded that the non-formal basic school students were lower in writing skill as compared to Formal primary school students, but they were equal in numeracy level. The study recommended that students at non-formal schools should be treated equally with Formal schools and training of teachers should be made mandatory in field of literacy specially in writing and numeracy skills. Gamification, playful pedagogy, pencil grip exercises, and using latest apps for writing and numeracy skills were recommended for both formal and non-formal schools.

Keywords: *Literacy, Writing skills, Numeracy skills, Formal school, non-formal school.*

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Introduction

Literacy is a mainstream and basic path to the progress. Literacy is a main element to communicate all over the world. It is the capability to translate data and helps to understand the data. Literacy is an art and proficiency (Karis, 2014). It is concern about the achievement of reading, writing and numeracy skills, and it's helped the growth of healthy nation, living standards, and gender equality. The purpose of literacy should be easy to understand (UNESCO, 2006).

Baguma and Okecho (2010) says that formal education is step by step designed and progressively promote the learner in education system, on the other hand formal institution provide the facility of specialization in different programmes. Ihejirika (2000) described that non-formal education helps to those people who cannot take a part in formal education system. It is also planned and organized learning system, but it's happened outside the formal school system. Non-Formal education framework offer to types of education to identified subpopulations (adults, adolescents or children) in the population. Constitution of the Pakistan stated that "the state shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law" (Article 25-A).

Literacy rate of Pakistan is very low. Pakistan's economic survey results mentioned that Pakistan's literacy rate is 60% to 58%. Pakistan did not reach to achieve the Millennium Development Goal, target of quality education, global primary school enrolment, increase literacy rate and expand school system (Alif Ailaan & SDPI, 2016). According to ASER Pakistan Report 2016,

- **English**: 86 % class 3 children cannot read English sentences (class 2 level)
- **Urdu**: 71 % class 3 children cannot read class 2 story.
- **Arithmetic**: 93 % class 3 children could not do two-digit division.

Ministry of Education (2001) testimony's outcome shows that students of primary level were very low in all subjects. It is a serious matter for nation's foundation if education system has been worthless on a basic stage. Many steps and projects have been started to upsurge the quality of education, but the outcome of the results have not been progressive, which is the sign of our failure system due to crumbly grounds at basic level.

"The ability to read, write and calculate simple symbols, digits, words, sentences, texts, with understanding at normal speed, and tackle everyday life problems related to citizenship, gender sensitivity, health, ethics and technical know-how to improve life and ultimately the society." Keeping in view the skills essential to succeed the above description, the National Literacy Curriculum (NLC, 2007) presented three stages of

literacy Level 1 equivalent to Grade 1of formal school education, level 2 equivalent to Grade 2 and Level 3 equivalent to Grade 4.

National Education Assessment system (NEAS) 2016 has been shown their assessment across the Pakistan to provide its feedback on practicality of fundamental education system by measuring the literacy achievement level of students. In this report NEAS used achievement test for the 4th class students based on national curriculum (Urdu, math, English) and student performance measure against learning outcome (SLOs) in given the national curriculum. The measurement scale used in NEAS is the same as in PISA, and TIMSS etc. The outcome of study shows that many aspects affect the student learning, and our education structure does not meet the projected standards of literacy.

Statement of the Problem

Literacy is a basic mandatory human essential to the country's development. It provides different ways of opportunities for individuals. Low literacy skills (writing and numeracy) can restrict a person's opportunities in life. The problem under investigation was to analyze the writing and numeracy skill of 4th Grade Students of Formal and Non-formal School System in Islamabad Territory. As writing and numeracy always remained neglected in research so this study was conducted to fill the gaps in research. This study focused on how much non-formal school students are different in attaining literacy skills (writing and numeracy) as compared to formal school students.

Objectives of the Study

1. To compare the writing skills among 4th grade students at non-formal basic school and formal primary school.
2. To compare the numeracy skills among 4th grade students at non-formal basic school and formal primary school.

Hypotheses of the Study

H_0^1 There is no significance difference between formal and non-formal education school system regarding attaining writing skills in 4th grade students.

H_0^2 There is no significance difference between formal and non-formal education school system regarding attaining numeracy skills in 4th grade students.

Significance of the Study

Literacy proficient in writing and numeracy skill students are better able to achieve their goals and play a variety of roles in their daily routine life. They can analyze and utilize information effectively, Literacy is essential, we will be expanding Pakistan literacy rate

if we will do deep analysis of education system and students understanding. Although there is a lot of literature on literacy (writing and numeracy) worldwide, but in Pakistan's concept is very limited. In other words, students do not have basic capabilities to survive in the modern world. Students who go to school must learn writing and numeracy skill to become able to cope. Current study focused on the comparison of literacy skills of 4th grade students of formal and non-formal school system which may help to understand the present situation of literacy in formal and non-formal institutions. This study may also be helpful for educational institutions to provide appropriate innovative strategies for learning literacy skills of writing and numeracy.

Literature Review

There is no simple, universally known explanation for "literacy". However, over time, the term has begun to address a more complex understanding of "literacy" as defined by literacy (Forster, 2009). Literacy is imperative for every child, youth and adult. They need to attain the basic skills to deal with challenges that they meet in their lives and are also a crucial step in basic education. Literacy is the core of basic education for all, providing a well-educated environment and culture that is numerous significances to achieving the goal of eliminating inflation, achieving gender equality, reducing child mortality, reducing population growth, sustainable development, harmony and consensus (United Nations, 2002). “A person is literate who can with full understanding, both read and write a short, simple statement on his/her everyday life” (UNESCO, 2008). According to Global Monitoring Report (2006), France embraced the word “littérisme” which refers “the ability to read and understand”. A direct word uses to transmission and write daily life information'.

Literacy has several dimensions of individual and communal needs. It is an essential and legal human right. Literacy is a basic tool and main step in the direction of progress. Illiteracy raises a ruthless cycle i.e., the illiterate is underprivileged, underprivileged are helpless and the helpless are illiterate (Shami & Hussain, 2005). The capability to read and write helps the student to identify, classify, understand, communicate, create, and compute, with the help of printed materials, in addition the capability makes the individual try to be perfect and able to sort out the difficulties in the practical situation. Literacy is a key source to constructing people’s knowledge, abilities and capacities to deal with all lifetime complications (UNESCO, 2015b). Some basic skills are necessary to obtain like reading, writing and numeracy to solve daily life problems (Burrus et al., 2013).

Literacy in Pakistan is defined by the competency of an individual to be aware of a simple statement in a regional or national language, along with the capability of doing several simple calculations (UNESCO 2003b). Following table also shows that Literacy definitions and percentage in different census periods in Pakistan.

Table 1

Year of census	Definition of being literate	percentage	Age group
1951	A person who can clearly read prints in any language.	16.4%	All Ages
1961	A person who can read simple letters of any language	16.3%	5 years and above
1972	A person who can read and write in a certain language with comprehension.	21.7%	10 years and above
1981	A person who can write a simple letter and read newspapers.	26.2%	10 years and above
1998	A person who can read newspapers and write a simple letter.	45%	10 years and above
2002	A person who can read and write in any language and can add or subtract.	45%	10 years and above
2008	A person who can write a simple letter and read newspapers in any language.	53%	10 years and above
2018	A person who can understand and read simple texts in any language from newspapers or magazines, write a simple letter and perform basic numeracy skills (i.e., counting and addition/subtraction).	62.3%	10 years and above

Source: Government of Pakistan (2007). Islamabad: academy of Education, Education Planning and Management, Ministry of Education. UNESCO (2004). Pakistan Economic Survey 2018-2019.

"Literacy is the achievement of basic skills of reading, writing and numeracy. In other words, literacy is the meaningful acquisition development and use of the written language" (GOP, 2007). Literacy training is usually classified as a primary education activity. A country's literacy statistics normally reflect its definition by classifying people who have attended primary school (Wagner, 1999). Literacy includes development skills that Pioneers of reading, as well as phonological awareness, Letter, and sound knowledge, as well as speaking (Lonigan, 2000).

Pakistan's government, officially approved the definition of literacy as: "The ability to read, write and calculate simple symbols, digits, words, sentences, texts, with understanding at normal speed, and tackle everyday life problems related to citizenship, gender sensitivity, health, ethics and technical know-how to improve life and ultimately the society." (NLC, 2007)

Literacy Skills

Literacy skills are as under:

Writing Skills

Writing can be defined, encouragement or precise knowledge of self-expression. In a theoretic circumstance, writing is useful for understanding of document or rational about a particular topic. Learning to write is an unbelievable accomplishment because writing usage a variability of cognitive possessions, authors make ideas, organize them, complete corporal actions of writing and make variations (Kulikowich et al., 2008). Writing is necessary for basic literacy skills, it precisely improves reading achievement and school accomplishment (Gerde, et al., 2012). Writing capability is very necessary for school children because they spent 50% of their school time in writing activity (Mackenzie et al., 2013).

Several studies explain that how to measured writing skill, using a certain degree of language techniques such as three stages of writing: discourse, sentences, and words (Abbott & Fayol 2010; Nelson & Meter, 2007; Puranik et al., 2008, Sanders & Schilperoord, 2006; Whitaker et al., 1994). Definition of Writing NAEP 2011 "Writing is a multifaceted, complex, and purposeful action of communication that is proficient in a different situation, under several limitations of time, and with the variation of languages resources and scientific tools."

Attainment of writing, ability is the initial stage to sovereign learning or learning through the use of print media. Relatedly, the official definition of literacy used by Pakistan (1998) for census, and other states in the region have incorporated this important ability into their literacy definitions (NEP, 2017).

Numeracy Skills

The word numeracy is used in many states, like Australia, New Zealand, and South Africa (Goos et al., 2012). The Oxford English Dictionary (OED, 2011) defines numeracy is "the quality or state of being numerate; ability with or knowledge of numbers." According to Pakistan's National curriculum Literacy (2007) acquiring numeracy and literacy skills are the basic step to individuality and lifetime learning. This includes basic skills that form the basis of basic education. It is one of the most significant mechanisms for providing awareness and skills to help people to contribute to the country's socio-economic growth. In the perspective of numeracy and literacy skills, we can describe literacy as: "The ability to read, write and calculate simple symbols, digits, words, sentences, texts, with understanding at normal speed, and tackle everyday life problems related to citizenship, gender sensitivity, health, ethics and technical know-how to

improve life and ultimately the society." This explanation describes the numeral and literacy skills elements. The overhead narration covers entire stages of literacy and can provide individuals with problem-solving and critical thinking skills, new technology information, social responsibility, and skills to improve themselves and the environment. In 2008 that the numeracy was officially added to the definition of literacy in Pakistan.

Steen, College and Northfield (2001) stated that literacy of numeracy is the ability to: Deal with numerical features of life, and planned that its components included: assurance with calculation; obligation of the antiquity of calculation and its importance for understanding matters in the community realm; logical thinking and decision-making; mathematics use to solve daily life problems in different prospect; number sense and symbol sense; reasoning with data; and the capability to draw on a series of pre required mathematical understanding and tools"(as quoted in Goos, Dole & Geiger, 2012).

Pattern of Literacy in Formal School System in Pakistan

Formal learning is usually a systematic, ordered, and planned activity according to Pakistan's economic survey. Intentionally this education is provided by qualified and competent teachers in schools, colleges, or universities. The formal education system of Pakistan consists of 260,903 institutions. Hence, 31% formal education institutions run by private sector and other 69% institutions run by public sector (PES, 2018).

Formal education system relates to well-organized, systemized, and managed educational approach that is arranged and planned procedure to a specific set of instructions and principles, providing an equally attentive curriculum in term of content, objectives, and procedures. It labelled as continuous educational process, as Sarramona (1975) states, "presential education" essentially includes students, teachers, and institutions.

In Formal education system different institution (school, college, and university) provide an education to a learner in different stages and play a role as a ladder (Eurostat, 2006). Formal education system is a preplanned education model, organized and managed by laws and standards, and constituent to strict curriculum goals, policies, and content (Todaro, 1995). Formal institute education programs embrace the training and progress of students' understanding, abilities, ways of philosophy and behavior in an organized and skilled manner in an environment of school. Formal education school is consisting of the classroom learner and qualified teachers. In general, formal system is a organized education method that is succeeded by the private and public education sector for teenagers and adolescents. In many countries, the formal education school system is fully supported and operated by the government (Ololube, 2013).

Worldwide importance of formal education has become a powerful tool for social progress. Without this tool, no one can achieve professional development (Ololube,

2011). Schools are distributed in all geographical areas and in a specific environment. They have boundaries, inputs, outputs, processes, and information mechanisms supported by social laws. School education refers to all the efforts made to help teachers deliver knowledge to learners (Dorgu, 2015). In Pakistani context Formal education system at primary level may be aligned with international standards.

Pattern of Literacy in Non-Formal School System in Pakistan

According to Pakistan economic survey, in non-formal education system, all learning and training activities take place outside the school. Developing countries, including Pakistan, have adopted non-formal basic education (it includes different NGOs like NCHD, BECS etc.) as cost-effective system to cover the unreached school child. About 1.24 million students are enrolled in this education system with 30,653 teacher (PES, 2018). In the 1960s and 1970s, non-formal education was got load of to provide “another opportunity education” to individuals who were "dropped out" in the formal system. The government has formulated a vocational education program to train young people to master relevant skills (Sharma, 1989).

Some learning programs that around the world may have several names or terms but may be classified as “non-formal” in their context. For exemplar, adult education, community education, alternative learning, correspondence education, community learning center (CLC), distance learning, open learning, lifelong learning, continuous learning, lifelong education etc. are categorized as non-formal education. The following definition explain the flexibility and ecofriendly features of non-formal education: The characteristic of non-formal education is that it has a high degree of adoptability and openness in the transformation and innovation of organization, pedagogy, and delivery methods. Non-formal education can be diversified according to the needs of the learners. The defining feature of non-formal education is that it is a complement, substitution, and alternative to formal education in the process of personal lifelong learning. It is usually provided to protect everyone’s right to education (UNESCO and UNICEF, 2014).

In Pakistan non-formal basic education was originally started the literacy programs of adults in the 1950s. In the 1970s, this idea was implemented more dynamically, but the consequences were not cheering. Over the years, some literacy programs of non-formal have been initiated, such as the village aid program in 1953, the literacy plan in basic democracies in 1964-69, the experimental pilot program in 1977-78, Quranic Literacy Project (1992-94), Roshni. Schools (1987-89) and the Iqra pilot project in 1987 but despite common concepts, common strategies, common literacy training and common materials lack novelty and did not take into account the social factors and the culture. The key issue is that no institutional connection has been made among formal learning courses and non-formal learning courses (UNESCO, 2004). Formal education

system will play an essential role in cultivating modern economic literacy rates and educated human resources. Nevertheless, it must be admitted that formal education cannot complete the goals of school learners and dropped out from formal education system. Here, non-formal education has chance to fill up the literacy gap (Kedrayate, 2012).

Methodology of the Study

A causal comparative research design was used to conduct this study. It is used to examine differences among two or more groups, it is frequently used for student assessment and educational progress, itis also known as ex-post-facto research. Causal comparative research design contract with those events that already had been occurred (Ragin & Zaret, 1983). In this study, researcher have three independent variables (formal school, non-formal school and students), and literacy skill subcategories writing, and numeracy is a dependent variable. Literacy skills of students were measured according to the skills proposed in national curricula.

Instrument

Data was collected through an achievement test. Literacy skill test was consisting of two sections writing and numeracy (The writing test was further divided in three parts like: 1. read the paragraph and give the answers; 2. to make sentences; 3. words dictation, and the numeracy test was based on different basic operations like place the number value, addition, subtraction, division, and multiplication).Test was developed by researcher with the help of experts, and school class teachers. National curriculum course book of 4^{th} class was used in experiment. The population of the study consisted of those students who have completed the 4^{th} class and presently were enrolled in 5^{th} class so that it may be confirmed that all students have studied the content used in achievement test. Literacy test was developed based on national curriculum; the following process was adopted to develop instrument.

1. Those questions were considered for test from the course books which could measure literacy skills. (Select a simple and random paragraph from 4^{th} class national curriculum book).
2. Test focused on multiple choice questions, constructed response and dictation items for better marking.

Population and Sample

Population of the study was consisting for comparison of 4^{th} grade 50 students (girls)at formal primary school and 4^{th} grade 50 students (girls)of non-formal basic primary school from Islamabad. Purposive technique was used to select the sample. Researcher took

whole population as a sample based on same characteristic (age, skill, class, gender and knowledge) whose ages were between 9-12 years.

Analysis of Formal and Non-Formal School

Table 2
Literacy skill comparison between formal primary school & non-formal basic school.

Variable	Group (School)	N	Mean	SD	t	df	Sig
Literacy Skill	Formal school	50	17.46	3.61	2.66	82.4	.009
	Non-Formal School	50	14.90	5.75			

*p<0.05

The above table 2 shows the literacy skills comparison of both schools' formal primary school and non-formal basic school. The value of t =2.66, df= 82.4, p<.009 was statistically significant. It means there is statistically significant difference between formal primary school and non-formal primary school regarding attaining 'Literacy skills' in 4th grade students. Formal school respondents scored (Mean=17.46, SD=3.61) and non-formal respondents scored (Mean=14.90, SD=5.75). It shows that formal primary school respondents were good achiever in literacy skills as compared to non-formal basic school respondents.

Analysis of Writing Skill

Table 3
Writing skill-based comparison between Formal and Non-Formal schools.

Variable	Group (School)	N	Mean	SD	t	df	Sig
Writing Skill	Formal school	50	7.64	2.34	2.76	84.1	.007
	Non-Formal School	50	5.96	3.60			

*p<0.05

The above table shows that value of t = 2.76, df = 84.1, p<0.007(it is below from p value p=0.05) was statistically significant. It means that there was a major difference between formal and no-formal respondents of sub-scale 'Writing Skill', formal school respondent (Mean=7.64, SD=2.34) and non-formal school respondents (Mean=5.96, SD=3.60) respectively. It shows that formal school respondent was higher in writing skill as compared to non-formal school respondents. So, the null hypothesis 'There is no

significance difference between formal and non-formal education school system regarding attaining writing skills in 4th grade students.' is rejected.

Analysis of Numeracy Skill

Table 4
Numeracy skill-based comparison between Formal and Non-Formal schools)

Variable	Group (School)	N	Mean	SD	t	df	Sig
Numeracy Skill	Formal school	50	7.82	1.66	1.73	98	.086
	Non-Formal School	50	6.64	2.00			

*p<0.05

The above table shows that value of t = 1.73, df = 98, p>0.86 that is above from p value (p=0.05). It was shows that p value is not statistically significant, which means that there was no significant difference between formal and non-formal respondents of sub-scale 'Numeracy skill', formal school respondents (Mean=7.82, SD=1.66) and non-formal school respondents (Mean=6.64, SD=2.00) respectively. Mean score showed minimum difference but it was not statistically significant. So, the null hypothesis 'There is no significance difference between formal and non-formal education school system regarding attaining numeracy skills in 4th grade students.' could not be rejected

Discussion and Conclusion

Current research was primarily concerned with literacy skills (writing and numeracy) of the non-formal basic schools and formal primary schools. First objective of the study was to comparison of writing skills of formal and non-formal students who have accomplished the 4-year primary education. The analysis shows that the students at formal schools are higher in writing skills as compared to non-formal students. According to Essays (2018), that is due to the circumstances that formal schools are more resourceful, while non-formal education has continuous learning process and does not have sufficient resources for students to acquire skills and knowledge. Equally, outdated workbooks that neither endorse the importance of a writing skill, nor give any chances, too subsequently fail to turn to an audience (Haider, 2012).

Some other studies review that incompetent teachers are mostly promote rote learning rather than creative skills (Mansoor, 2005; Rahman, 2002; Siddiqui, 2007). Students' writing skill can be developed by their interest, inspiration, and pleasure for writing, through technology (Graham & Perin, 2007). Similarly, some metacognitive, intellectual, and socio-

affective tactics could also be used for permitting the students to know and practically exercise the writing process (O'Malley & Chamot, 1990) Most notably, it is necessary that attitudes towards writing and dealing with its problems are changed. Teachers must employ new strategies and ideas from students to be penned down on a piece of paper to endorse their writing ability. Besides, instant and critical response needs to be given on their output, so that their confidence is raised (Haider, 2012).

The second objective of the study showed that no significant differences were found in non-formal basic schools and formal primary school students among numeracy skills. The study conducted by Archer and Cottingham, (1996) stated that, most adult learners already know oral counting and some mathematical structures and have an art of mental arithmetic adequate for their daily life; in fact, many 'illiterate' adults (especially those involved in trade) are better at mental arithmetic than are more 'educated' people.

The conclusion of the study clearly depicts that the results of literacy skill regarding writing and numeracy skill of non-formal and formal primary schools. The results showed statistical difference between non-formal basic school students and formal primary school students in writing skill. The formal schools' students have more confidence on writing skills as compared to non-formal students. However, no difference could be found in both, formal and non-formal schools' students about attaining numeracy skills.

Recommendations

- By keeping in view findings of the study, in a formal school system, training of teachers may be based on new and innovative techniques according to writing and numeracy skills.
- In a non-formal school system, training of teachers may be done according to the recognition of words and develop creative writing skills in students.
- In a formal school system, assignments and quizzes are advised conduct for the development of numeracy skills in students. Game based teaching may be introduced for writing and numeracy skills.
- In a non-formal school system, different events, quizzes and games are suggested to arrange for the development of numeracy basic skills in students. Curriculum of 4^{th}. Grade may be developed keeping in view the new trends in writing and numeracy skills.
- Gamification, playful pedagogy, pencil grip exercises, and using latest apps for writing and numeracy skills were recommended for both formal and non-formal schools.
- Further research may be conducted taking a larger sample consisting gender based and different geographical locations.

References

AlifAilaan & SDPI. (2016). *AlifAilaan Pakistan district education rankings 2016.*Islamabad: AlifAilaan.

Abbott, R. D., Berninger, V. W., & Fayol, M. (2010). Longitudinal relationships of levels of language in writing between writing and reading in grades 1 to 7. *Journal of Educational Psychology, 102*, 281-298.

Article 25-A. (1973). Constitution of Pakistan.

ASER. (2016). *Annual status of education report*. Pakistan report. Retrieved from http://aserpakistan.org/report.

Baguma, G., & Oketcho, P. (2010). *Linking formal and non- formal education: Implications for curriculum.* A Paper presented at a stakeholder meeting on the need for a national qualifications' framework held at Fairway hotel on August 6, 2010Kampalaijh.

Burrus, J., Jackson, T., Xi, N., & Steinberg, J. (2013). *Identifying the most important 21st century workforce competencies: An analysis of the Occupational Information Network (O*NET) (ETS Research Report No. RR-13-21*). Princeton, NJ: ETS. Retrieved from http://www.ets.org/research/policy_research_reports/ publications/report/2013/jrkj

Dorgu, T. E. (2015). Different teaching methods: A panacea for effective curriculum implementation in the classroom. *International journal of secondary education*: *Special Issue: Teaching methods and learning styles in education, 3*(6),77-87.

Eurostat. (2006). *Classification of learning activities - Manual*. Luxembourg: Office for official publications of the European communities.

Forster, M. (2009). *Literacy and numeracy diagnostic tools: An evaluation.* Australian council for educational research.

Gerde, H. K., Bingham, G. E., & Wasik, B. A. (2012). Writing in early childhood classrooms: Guidance for best practices. *Early Childhood Education Journal,40* (6), 351- 359.

GMR. (2006). *Literacy for life: Education for all.* UNESCO.

GOP. (2007). Academy of Education. Education Planning and Management, Islamabad Ministry of Education. Government of Pakistan.

Goos, M., Dole, S. & Geiger, V. (2012). Numeracy across the curriculum. *Australian Mathematics Teacher, 68*(1), 3-7. Australia: Australian Association of Mathematics Teachers Inc.

Graham, S., & Perin, D. (2007). Writing next-effective strategies to improve writing of adolescents in middle and high schools. *The Elementary School Journal, 94* (2), 169–181.

Haider, G. (2012). An insight into difficulties faced by Pakistani student writers: Implications for teaching of writing. *Journal of Educational and Social Research, 2 (3), 17–27.*

Ihejirika, J. C. (2000). *Fundamentals of adult education delivery: A sociological perspective* Owerri: Springfield Publishers.

Karis. M. (2014). The common core of literacy and literature. *Journal of English, 103*(4), 46-52.

Kedrayate. A. (2012). Non-formal education: Is It relevant or obsolete? *International Journal of Business, Humanities and technology, 2(4).*

Kulikowich, J. M., Mason, L. H., & Brown, S. W. (2008). Evaluating fifth- and sixth-grade students' expository writing: Task development, scoring, and psychometric issues. *Reading and Writing, 21*, 153-175.

Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: evidence from a latent-variable longitudinal study. *Developmental Psychology, 36*(5), 596-613.

Mackenzie, N. M., Scull, J., & Munsie, L. (2013). Analyzing writing: The development of a tool for use in the early years of schooling. *Educational Research, 23*(3), 375- 393.

Mansoor, S. (2005). *Language planning in higher education: A case study of Pakistan*. Oxford University Press Karachi.

Ministry of Education. (2001*). Learning achievement in primary schools of Pakistan: A quest for quality education. Islamabad.* UNESCO and ministry of education, Pakistan.

NEP. (2017). *National education policy*. Ministry of education government of Pakistan.

NAEP, (2011). *Writing 2011 National Assessment of Educational Progress*. Institute of education sciences. U.S: Department of Education.

NEAS. (2016). *National assessment report 2016*. National education assessment system (NEAS); Ministry of federal education & professional training Islamabad, Pakistan.

Nelson, N. W., & Van, A. M. (2007). Measuring written language ability in narrative samples. *Reading and Writing Quarterly, 23*, 287-309.

NLC. (2007). *National curriculum for literacy basic literacy and numeracy, functional literacy and income generating skills*. Curriculum wing: Government of Pakistan, Islamabad.

O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition.* Cambridge University Press, United Kingdom.

OED. (2011). *Oxford English dictionary (3rd ed.)*. Retrieved from http://dictionary.oed.com

Ololube, N. P. (2011). *Professionalism, school effectiveness and quality improvement: potentials and issues surrounding school effectiveness*. Saarbucken, Germany: Lambert Academic Publishers.

Ololube, N. P. (2013). *Educational management, planning and supervision: model for effective implementation*. Owerri, Nigeria: Spring field publishers.

Pakistan Economic Survey 2018-2019. (2019). *Department of Finance*, Government of Pakistan.

Puranik, C. S., Lombardino, L. J., & Altmann, L. J. P. (2008). Assessing the microstructure of written language using a retelling paradigm. *American Journal of Speech-Language Pathology*, 17, 102-120.

Ragin, C., & Zaret, D. (1983). *Theory and method in comparative research: two strategies*. Social Forces, 61(3), 731-754. doi:10.2307/2578132

Rahman, T. (2002). *Language, ideology and power (Vol. 1)*. Oxford University Press, United Kingdom.

Siddiqui, S. (2007). *Rethinking education in Pakistan: Perceptions, practices, and possibilities*. Paramount Publishing Enterprise, United States.

Sanders, T. J. M., & Schilperoord, J. (2006). Text structure as a window on the cognition of writing: How text analysis provides insights in writing products and writing processes. Inc. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research.* New York: Guilford. 386–402.

Sarramona, J. (1975). Distance Learning Technology. CEAC editions, Barcelona.

Shami, P. A., & Hussain, Kh. S. (2005). *Development of education in Pakistan.* Islamabad: AEPAM.

Sharma, A. (1989). *Multi-craft in Fijian Secondary Schools: An Evaluative Study of A Non-formal Education Programme*. Unpublished Thesis, Armidale, The university of New England.

Steen, A. L., College. &, Northfield, M. (2001). Mathematics and numeracy: Two literacies one language. *Journal of the Singapore Association of Mathematics Educators*, 6(1), 10-16.

Todaro, M. (1995). *Reflections on economic development* . Edward Elgar publishing.

UNESCO. (2003b). *Literacy: A UNESCO Perspective.* UNESCO: Paris. Available online at: http://www.unesco.org/education/litdecade/

UNESCO. (2004). non-formal education in Pakistan issues in resource development and capacity building: UNESCO Islamabad.

UNESCO. (2006a). *Global Benchmarks for Adult Literacy.* Global campaign foreducation/action aid international.

UNESCO. (2008). Good practices in literacy & non-formal education programmes: Asia Pacific Region. UNESCO, Islamabad.

UNESCO. (2015b). *World Education Forum2015: Final report*. UNESCO: Paris.

UNESCO & UNICEF. (2014). *Non-formal education as a means to meet learning needs of out-of-school children and adolescents*. UIS, Montreal, Canada.

United Nations (2002). *Resolution 56/116 on United Nation literacy decade: Education for all*. General assembly.

Wagner, D. A., Venezky, R. L. & Street, B. V. (1999). *Literacy: an international handbook.* Boulder, Colo.: Westview Press.

Whitaker, D., Berninger, V. W., Johnston, J., & Swanson, L. (1994). Intra individual differences in levels of language in intermediate grade writers: Implications for the translating process. *Learning and Individual Differences, 6*, 107-130.