Journal of Peace, Development and Communication

PEACE AND DEVELOPMENT

Volume 04, Issue 3, October-December 2020
pISSN: 2663-7898, eISSN: 2663-7901
Article DOI: https://doi.org/10.36968/JPDC-V04-I03-13
Homepage: https://pdfpk.net/pdf/
Email: se.jpdc@pdfpk.net

Article:	**Comparative Study of Cognitive Development of Students of Different School Systems in Pakistan**
Author(s):	Dr. Rukhsana Durrani Lecturer, Early Childhood and Elementary Teacher, Education Department, Allama Iqbal Open university, Islamabad
	Dr. Farkhunda Rasheed Choudhary Assistant professor, EPPSL Department, Allama Iqbal Open university, Islamabad.
Published:	30th December 2020
Publisher Information:	Journal of Peace, Development and Communication (JPDC)
To Cite this Article:	Durrani, Rukhsana & Farkhunda Rasheed Choudhary (2020). "Comparitive Study of Cognitive Development of Students of Different School Systems in Pakistan" *Journal of Peace, Development and Communication*, vol. Volume 4, no. Issue 3, 2020, pp. 232–250, https://doi.org/10.36968/JPDC-V04-I03-13.
Author(s) Note:	Dr. Rukhsana Durrani is serving as Lecturer as Early Childhood and Elementary Teacher, Education Department,Allama Iqbal Open university, Islamabad Email: *rukhsana.durrani@aiou.edu.pk*
	Dr. Farkhunda Rasheed Choudhary is serving as Assistant professor at EPPSL Department, Allama Iqbal Open university, Islamabad.

.

Abstract

This study was conducted to explore the cognitive development of students of Madaris, public sectors and private sectors of Islamabad. It was quantitative research. A sample of 716 students was selected randomly from three streams of education. To measure the cognitive development of students, a standardized tool was used to collect data. The tests were administered, scored, and was analyzed through SPSS. Results showed a significant difference among cognitive development of students of three educational systems. Analysis of the data showed a significant difference among scores in subtests i.e. analogies, the odd one out, and similarities. Similarly, students of the private sector had better overall means scores than the mean score of students of Madaris and public schools. As the three systems claim for development of cognitive abilities of students therefore it is recommended that the curriculum, teaching methodologies and learning resources of the three systems may be compared and streamline them for harmonious cognitive abilities of students.

Keywords: cognitive development, madrasah schools, private schools, public schools

Introduction

Education is the most significant development sector in all countries. It helps to make competent and productive citizens and offers avenues for skill development to the disadvantaged classes in society. Globalization has brought about several changes in every aspect of life. Due to education, businesses can be made more competitive and challenging and emphasis can be made on the human expertise in various areas of life. Therefore, only such countries can meet the globalization challenges that have developed a workforce with the modern skills. In Pakistan, there are different categories of educational institutions such as government sector schools and colleges, private sector institutions working under missionary organizations, commercialized private institutions sector English medium schools and colleges govern by various communities.

There are also regular schools with Urdu teaching facilities and model schools with English teaching facilities. Each of these schools have its own curriculum, funds, salary ranges and financial resources. The socio-economic status of students and their staff is also different. By contrast, religious institutions are also diversified. The categorization of religious institutions is not merely based upon their Islamic ideology and doctrine, but different sectarian views are also base of their difference. In Pakistan, the religious educational institutions are grouped as schools of "Barelvi thoughts", "Madaris of Deobandi sect", "Madrasah of Ahl-i-Hadees" and religious institutions of various sects (Ahmad et al., 2014).

All such classes of educational institutions in Pakistan, display that there is no uniform educational system at the national level. (Naviwala, 2016). Each of these educational systems has its own shortcomings and boundaries. Therefore, there is not only difference of perceptions, abilities, and personalities. But the difference in ideologies, philosophies, and attitudes also exists. These differences yield to the differences in thought,

opinion and ideas at the national level, that can hinder national solidarity, and resultantly the socio-economic development of country. Due to the rapid and diversified expansion, there is increase of disparity in the society. For a prosperous future, there is need of a uniform and an outcome-based education system that ensures our claims as a Muslim society. Our education system has not been successful in producing personalities such as Allama Iqbal, Abu Hanifa, Ibne Sina Alfarabi, and Jabir Bin Hayyan. Most of our education systems are not capable of meeting the demands and requirements of a respectable and free nation (Hussain, 1992).

One of the reasons for the downfall of the education system is the misallocation of the budget, improper planning, loss of ideology and the shortage of qualified and trained teachers at all levels. Education contributes to the harmonious development of the citizens of every nation. It enhances individuals' cognitive capacities and makes them able to take part in the economic development of country. In other words, it can be said that through the process of education, people develop such attitudes, skills, abilities, and expertise that facilitate them changing their behavior according to social, economic, and political requirement. In Pakistan, different education systems are trying to improve students' cognitive capacities so that they can participate in national progress. (Shami & Hussain, 2005).

Each system of education in Pakistan claims for the cognitive development of their students, however there is a need to analyze that to what extent each system is fulfilling this claim, therefore, this research was designed to explore the level of cognitive development of students of each system of education. This research may provide the opportunity to the stakeholders to take strong measures for enhancing the cognitive development of the students of those systems who are lacked behind in the development of cognitive abilities of their students.

STATEMENT OF PROBLEM

There are several levels of education system in Pakistan. It includes elementary, secondary, higher secondary and higher education. There are different benchmarks associated with each level. There are several sectors that are contributing towards enhancement of educational level of students; it includes private sector and government sector. There are various kinds of schools in Pakistan, Madaris, private school and government schools. All three educational systems have their own philosophy, curricula, and programs. Therefore, there is disparity in the cognitive and intellectual abilities of students. There is greater significance of cognitive development for the intellectual development of students. For this reason, the present study was framed out to study and make comparison of cognitive development of students from three kinds of schools at secondary level.

OBJECTIVE

To explore the similarities and differences of cognitive development of students of three systems of education (Madaris, private sector and public sector schools) at secondary level.

REVIEW OF LITERATURE

The cognitive branch of psychology got importance due its nature of a scientific inquiry, its scope for practical implication and to serve as a foundation for different fields of social sciences. The history of cognitive psychology has traced back to more than 2000 years ago, but the last 100 years are famous for the proper scientific research in the study of cognitive psychology. The philosophical discussion of cognitive psychology shows that Plato and Aristotle both had discussed human memory and thoughts (Morgan & Harris, 2015). The Antagonists and empiricists school of thought believed that the individual knowledge is the result of experiential learning while the nativists and rationalists believed that the children have enough innate knowledge when they come to this world. But nineteen centuries was the

period of emerging of new directions in the field of understanding of cognition (Anderson, 1990).

The mental operations which involve in individual thinking are called cognition. It is the intellectual capacity of human mind which reasons on new information, learns few parts from it and then retains them. The abilities of cognition are different in different individuals "Cognition contains those skills which are necessary for encoding, memorization, and retaining information." (Schraw et al., 2006). Cognition is also an attainment of knowledge (Reed, 1982). Goswami (2000) describe cognition as, "the set of processes that enables us to gain information about our environment (p.1)." Ashworth (2000) explain cognition as, "perception, remembering, thinking, reasoning, imagining, and learning (p.8)."

Cognitive development and education both are essential parts of each other. Education serves as a mean for enhancing the cognitive development of students at any stage or level of education. It is the education system which enhance the thinking and analytical abilities of individuals. So, the role of education system cannot be ignored in the process of the development of cognitive abilities of individuals (Jabr & Cahan, 2014).

The system of education of any country is the reflection of their society, culture, and tradition along with ideology. The education system of Pakistan has a huge variation in terms of curriculum, medium of instruction, resources and plans of implementation. The tiers of education in Pakistan are divided into pre-primary primary, middle, high, Secondary School Certificate or SSC, intermediate or Higher Secondary (School) Certificate or HSC); and university programs leading to graduate and advanced degrees **(**Peter, 1994). The pre-school education or early childhood education in Pakistan is commonly run by private sector comparatively with better facilities. Early years schooling is more common in big cities while majority of the remote areas of the country have not an established system of early childhood education yet (Shakil, 2002). The curriculum of school level of education is not uniform in

Pakistan. It is varying from system to system such as the curriculum of public sector is different from that of private sector. Similarly, the medium of instruction also varies from system to system. There is also a discrepancy among public and private schools' systems in Pakistan at middle and secondary level of education. Every sector has their own plans and policies (Amir et al., 2020).

School plays an important role in accelerating the cognitive development of students. Schools and teachers together developed the cognitive abilities of students by changing the behavior inside the cognitively stimulating classrooms. The studies published during the last two decades on the cognitive development and effects of schooling has concluded that schools are one of the major factors which influence the cognitive abilities of individuals (Cahan & Cohen, 1989; Cliffordson & Gustafsson, 2008; Gambrell, 2013; Wang et al., 2016).

The study of Sinha (1977) revealed that the schools administered by government are different in many aspects of cognitive development from those schools which are administered by private institutions. The development of abilities of a child inside the schools determined his or her future potential for utilization of cognitive processes and skills in life (Borghans et al., 2015).

In Pakistan, the multiple systems of education are claiming for the overall personality and cognitive development of students. Although these systems are promoting education and contributing to the literacy development of the country but there are some issues and problems which are taking place due to these multiple systems of education. Some of these problems are enlisted as: The existing system of education classified the society into groups of religious and secular sects. It also further grouped the citizen in terms of languages, social status, and traditions. These are such type of issues which bifurcate the society and hinder to achieve the national objectives on certain matters (Bashir & Haq, 2019). Besides the variation

in cognitive development of multiple systems students, another issue which needs more attention is the bifurcation of religious knowledge from worldly knowledge, although being a Muslim we have believe that revelation is the source of knowledge. Similarly, the commercialization of education is also one of the factors which arise from the multiple systems of education. The schools all over the country reflects the different social status of students and social classes. So, there is a need of uniform schools' systems which based on Islamic ideology (Shami & Hussain 2005).

The religious institutions in Pakistan are called Madaris. These institutions have also variations based on the different sects' religious communities. Although various reforms have been brought in Madaris but still there is a need of more improvement in these institutions in the form of teachers training, revision of curriculum, methods of assessments and examinations and inclusion of technical and vocational education (Shah, 2003; Rehman, 2001). The research of Cinquepalmi & Picciarelli (2007) conducted on school level students to identify the correlation between cognitive development and academic achievement, recommended that the primary focus of the schools should be on cognitive development of students and it needs to be reflected in the final grades of the students. The research further suggested that the teachers needs to be more focus on the development of higher level of cognition rather to emphasize on factual knowledge.

Methodology

This study was descriptive in nature. The population of the study was students of grade 10^{th} of public, private and Madaris. Those Madaris were under the study which were under administration of Wafaqul-Madaris Pakistan. Stratifies sampling technique was used to select the students from three systems of education. Total 716 students were selected through stratified sampling. A nonverbal test was used to find the cognitive development of students.

Research Tool

The tool of the research was a standardized test called Indigenous Test of Intelligence (INTI). This test instrument has five sub-tests i.e. are Matrices, Analogies, series, Odd one out and similarities. Every sub-test has its specific time limit to attempt. Basically, the sub tests were in the form of nonverbal figural MCQs. The question was in the form of different figures with figural answers. Each sb test was assigned marks according to the number of items in the sub test. similarly, the time allocation for each test was also different and was according to the number of items.

Table 1.

Descriptive statistics of overall test score of cognitive development of sampled students

(N = 716)

Statistics	Series (20)	Analogies (20)	Matrices (20)	Odd One Out (15)	Similarities (15)	Cognitive development Test (90)
Range	17	18	17	15	13	64
Mean	6.17	7.05	6.54	8.28	6.71	34.72
SD	3.40	3.52	3.47	3.02	2.78	12.44

Table 1 shows range mean and Standard deviation of scores of all subtests of sampled students. It shows that the total score of tests “series”, “analogies” and “matrices” is 20 while total scores of “odd one out” and “similarities” is 15 each. The table reflects that there is a wide range between the scores of the tests of analogies and similarities with 18 and 13 values respectively. While the means score for the odd one out and analogies tests is comparatively higher with SD of 3.02 and 3.52 respectively.

Table 2.

Inter correlation among sub-tests of test

Sub test	Series	Matrices	Analogies	Odd one out	Similarities
Series	1	.580**	.507**	.479**	.317**
Matrices	.580**	1	.582**	.488**	.442**
Analogies	.507**	.582**	1	.498**	.432**
Odd one out	.479**	.488**	.498**	1	.470**
Similarities	.317**	.442**	.432**	.470**	1

** at 0.01 level (2-tailed).

In table 2, inter correlation between the scores at all sub-tests has been presented. There "series" subset has highest or strong correlation 0.580 with "series" subset. Whereas subtest "similarities" has low or weak 0.317 correlation with "series" subtest.

Table 3.

ANOVA for overall score on cognitive development tests

Sub tests		Sum of Squares	df	Mean Square	F	p-value
Sum	Between Groups	38906.539	2	19453.270	193.018	.000
	Within Groups	71859.338	713	100.784		
	Total	110765.877	715			
Series	Between Groups	3060.335	2	1530.167	209.157	.000
	Within Groups	5216.217	713	7.316		
	Total	8276.552	715			
Matrices	Between Groups	1687.758	2	843.879	86.772	.000
	Within Groups	6934.067	713	9.725		
	Total	8621.825	715			
Analogies	Between Groups	1540.562	2	770.281	74.815	.000
	Within Groups	7340.917	713	10.296		
	Total	8881.479	715			
Odd one out	Between Groups	1762.226	2	881.113	131.469	.000
	Within Groups	4778.571	713	6.702		
	Total	6540.797	715			
Similarities	Between Groups	882.377	2	441.189	67.713	.000
	Within Groups	4645.616	713	6.516		
	Total	5527.993	715			

In the table 3, results of ANOVA have been shown. It shows that there is significant difference among students of three educational sectors on the overall test. moreover, there is significant difference in each subtest among students of three educational sectors.

Therefore, for a detailed analysis, LSD test was applied.

Table 4. *Post Hoc test of cognitive development test*

Sub tests		School College (I)	School College (J)	Mean Difference (I-J)	Std.Error	Sig.
Sum	Tukey HSD	Public School	Private School	-8.549*	.822	.000
			Madrassah	12.798*	1.084	.000
		Private School	Public School	8.549*	.822	.000
			Madrassah	21.347*	1.100	.000
		Madrassah	Public School	-12.798*	1.084	.000
			Private School	-21.347*	1.100	.000
Series	Tukey HSD	Public School	Private School	-3.773*	.221	.000
			Madrassah	1.292*	.292	.000
		Private School	Public School	3.773*	.221	.000
			Madrassah	5.065*	.296	.000
		Madrassah	Public School	-1.292*	.292	.000
			Private School	-5.065*	.296	.000
Matrices	Tukey HSD	Public School	Private School	-2.159*	.255	.000
			Madrassah	2.148*	.337	.000
		Private School	Public School	2.159*	.255	.000
			Madrassah	4.307*	.342	.000
		Madrassah	Public School	-2.148*	.337	.000
			Private School	-4.307*	.342	.000
Analogies	Tukey HSD	Public School	Private School	-1.298*	.263	.000
			Madrassah	3.000*	.346	.000
		Private School	Public School	1.298*	.263	.000
			Madrassah	4.299*	.351	.000
		Madrassah	Public School	-3.000*	.346	.000

			Private School	-4.299*	.351	.000
Odd one out	Tukey HSD	Public School	Private School	-1.033*	.212	.000
			Madrassah	3.542*	.280	.000
		Private School	Public School	1.033*	.212	.000
			Madrassah	4.576*	.284	.000
		Madrassah	Public School	-3.542*	.280	.000
			Private School	-4.576*	.284	.000
Similarities	Tukey HSD	Public School	Private School	-.231	.209	.510
			Madrassah	2.869*	.276	.000
		Private School	Public School	.231	.209	.510
			Madrassah	3.100*	.280	.000
		Madrassah	Public School	-2.869*	.276	.000
			Private School	-3.100*	.280	.000

*at the 0.05 level.

The table 4 indicates that there was significant difference between systems of education in all the sub test s of cognitive development except similarities subtest where there was found there was no significant difference in the mean score of the students at the private schools and public school in similarities sub test.

Discussion

This study was conducted to explore cognitive development of students at different school systems in Pakistan. The scores of cognitive development test showed that there was significant difference among the students of three streams in overall tests. The private school students were found more developed cognitively than public and madrasah students. Similarly, the public-school students were found comparatively more cognitively developed that those of madrasah students. There was also significant difference in all the sub tests of cognitive development test where private school students were found more cognitively developed than private and madrasah school students. Moreover, while comparing cognitive development of public school students and Madrasah school students, the public school

students were found more cognitively developed than madrasah school system. Therefore, there was significant difference between systems of education in all the sub tests of cognitive development except similarities subtest, where there was found no significant difference in the mean score of the students of the private schools and public school. The difference may arise due to different curricula being practiced in three streams. It might also be due to emphasis on learning outcomes. This inference is in line with Spady (1993) as described by Jazeel (2020) that this is because the curriculum is being developed from the desired outcomes that are required from students to demonstrate, instead of writing "objectives for the curriculum" which are already there. Studies from madrasah revealed that the primary objective of the Madrasah education is to practice religious obligations. This objective is the most top priority objective, and all activities are planned for the attainment of these objectives. Therefore, one of the most significant objective of madrasah education is "to train and develop true custodians and protectors of Islam". Traditionally, religious education aimed at training religious leaders, religious officials, and religious teachers of the community of Muslims. Due to non-emphasis of curriculum on such traits of cognitive development, madras students were found far behind than private and public sector schools. There is need to bring reforms in the curricula of public sector and madrasah so that these students be at par with private sector schools. The revision of curricula requires to focus on competencies and skills which are helpful for the cognitive development of children. Mokhtar (2010) emphasized that there is need to make madrasah education relevant. The lower score on tests of cognitive development may also be due to the reason of learning environment available in there systems of education as the study of Ranjitkar et al., (2019) revealed that poor socio economic status of children and unsatisfactory learning environment such as physical punishment caused lower level of cognitive development.

The significant difference was also found between the students of public school and madrasah school system. Similarly, there was significant difference between the private school students and madrasah school system on the overall test of cognitive development test. The difference may arise due to teaching style and teaching methodology. Sabki and Hardaker (2013) also described "that the heartfelt interactions between the teacher and learner through orality facilitating memorization and the didactic approach towards sacred texts. The analysis shows that the madrasas most likely apply traditional teaching methods, in which the content of the subjects important and teacher or the textbook of the subject is vital. The teachers are of authority to the students in terms of content which must be transmitted. Students get every bit of information from the teacher and did not involve in active learning. In absent of the recruitment policy, teachers are appointed on basis of personal links to the madrasah. The qualification and professional outlook of the teaching staff is not up to the mark. Most of them are those who completed the studies in a such madrasah. The staff development programme and continuous professional training is not place". By improving curricula, teaching methodologies and assessment techniques (Shah, 2003; Rehman, 2001), the cognitive development of Madrasah students can be improved, resultantly, quality of education will be improved that will ultimately benefit community and the nation at large.

CONCLUSION

The results of this research show that the students of the multiple systems of education have variation in their cognitive development. There is a significance difference between the cognitive development of the students of public, private and Madaris schools. The students at the private school were found to have a higher level of cognitive development as compare to the students of the public school while the students of Madaris were having low level of cognitive development as compare to both public and private schools. The significance difference between the students of three systems was found on all sub tests of

cognitive development except "similarities" subtest, where there was no significant difference in the mean score of the students at the private schools and public school.

Recommendations

Based on the results of this research it is recommended that there is a need to find out the reasons of higher level of cognitive development of the students of both public and private school systems and the lower level of students of Madaris. It may be recommended for future researches also. This is also suggested that there may be the need to align the curriculum, teaching methodologies and instructional materials of three systems of education.

References

Ahmad, I., Rehman, K., Ali, A., Khan, I., & Khan, F. A. (2014). Critical Analysis of the Problems of Education in Pakistan: Possible Solutions. *International Journal of Evaluation and Research in Education*, *3*(2), 79-84.

Amir, S., Sharf, N., & Khan, A. (2020). Pakistan's education system: An analysis of education

Anderson, J. R. (1990). *Cognitive psychology and its implications* (3rd ed). Freeman and company.

Ashworth, P. (2000). *Psychology and human nature*. Psychology Press.

Bashir, M., & Haq, S. (2019). Why madrassah education reforms don't work in Pakistan. *Third World Quarterly, 4*(93), 595–611.

Borghans, L., Bart, H., Golsteyn, H., & Zolitz. (2015). School Quality and the Development of Cognitive Skills between Age Four and Six. *PLoS One. 10*(7), 413-422.

Cahan, S., Jurges, H., Jabr, D., & Abdeen, Z. (2019). Student's SES and the Effect of Schooling on Cognitive Development. *Journal of Education and Human Development, 8* (4),199-209.

Cahan. S., & Cohen, N. (1989). Age versus schooling effects on intelligence development. *Child Development, 60*(4), 1239–1249.

Carlsson, M., Dahl, B. G., Ockert, B., & Rooth, D. (2015). The Effect of Schooling on Cognitive Skills. *The Review of Economics and Statistics, 97*(3), 533–547.

Cinquepalmi, R., Muciaccia, F., & Picciarelli.V.(2007). Cognitive development in relation to secondary school final examination results in the Italian school system. *International journal of Science, 7*(2), 215-219.

Cliffordson, C., & Gustafsson, J. E. (2008). Effects of age and schooling on intellectual performance: Estimates obtained from analysis of continuous variation in age and length of schooling. *Intelligence, 36*(2), 143–152.

Gambrell, J. (2013). *Effects of age and schooling on 22 ability and achievement tests*. [Doctoral dissertation, University of Iowa]. Retrieved from http://ir.uiowa.edu/etd/2498/

Goswami, U. (2000). *Cognition in Children*. UK: Psychology Press.

Hussain, I. (1992). *Pakistan educational & cultural perspective*. Nadeem book house.

Iqbal, M. A. (1997). *A study on the effectiveness of intervention methodology on the cognitive development of science students*.[PhD thesis, University of the Punjab, Pakistan].Retrieved on 24-10-2010 from http://eprints.hec.gov.pk/1524/1/1406.HTM.

Jabr, D., & Cahan, S. (2014). Schooling effects on cognitive development in a difficult environment: the case of refugee camps int he West Bank. *International Studies in Sociology of Education, 24*(2), 165–188.

Jazeel, M.I. (2020). Application of Outcome-Based Curriculum in Religious Studies: The Case of Madrasas in Sri Lanka. *Journal of Politics and Law*,*13*(3), 196-202.

Mokhtar, I. A. (2010). Madrasahs in Singapore: Bridging between their Roles, Relevance and Resources. *Journal of Muslim Minority Affairs, 30*(1), 111-125.

Morgan, T. J. H., & Harris, P. L. (2015). James Mark Baldwin and contemporary theories of culture and evolution. *European journal of developmental phsychology*,*12*(6), 666–677. doi: 10.1080/17405629.2015.1074068

Naviwala, N. (2016). *Pakistan education crisis: the real story*. Wilson Centre Asia program.

Parka, J., & Niyozovb, S. (2008). Madrasa education in South Asia and Southeast Asia: current issues and debates. *Asia Pacific Journal of Education, 28*(4), 323–351.

Peter, B. (1994). *Pakistan Education: A Country Study*: *GPO for the Library of Congress*. Retrieved on 1 -04-2010 from http://countrystudies.us/pakistan/42.htm.

Ranjitkar, S. Hysing, M. Kvestad, I. Shrestha, M. Ulak, M. Shilpakar, J. Sintakala, R. Chandyo, K. Shrestha, L., and Strand, T. (2019). Determinants of Cognitive Development in the Early Life of Children in Bhaktapur, Nepal. *Front. Psychol*. 10:2739. doi: 10.3389/fpsyg.2019.02739

Reed, S.K. (1982). *Cognition: Theory and applications*. California: Brooks Cole.

Rehman, A. (2001). *A study of relationship of self-concept with classroom environment, gender role, cognitive development and academic achievement of the students at secondary school level*.(PhD thesis, Allama Iqbal Open University, Department of Teacher Education, Islamabad).Retrieved on 12-10-2010 from http://eprints.hec.gov.pk/273/2/3.htm.

Sabki, A. A., & Hardaker, G. (2013), The madrasah concept of Islamic pedagogy. *Educational Review, 65*(3),342-356, DOI: 10.1080/00131911.2012.668873.

Sami, P. A., & Hussain, K. S. (2005). *Basic Education in Pakistan*. Islamabad: Academy of Educational Planning and Management.

Schraw, G., Crippen, K. J., & Hartley, K. (2006). Promoting Self-regulation in science education: Meta-cognition as part of a broader perspective on learning. *Research in Science Education, 36*(2),111-139.

Shah, D. (2003). *Country Report on Decentralization in the Education System of Pakistan Policies and Strategies.* Islamabad: Academy of Educational Planning and Management.

Shakil, S.(2002). *An Overview of Early Childhood Care and Education in Pakistan: An Initial Survey and Situational Analysis*. Islamabad: Agha Khan Foundation.

Retrieved on 20-06- 2010 from http://www.ecdpak.com/publications/Sofia-Shakil.pdf

Shami, P.A., & Hussain, K.S.(2005). *Development of education in Pakistan*. Islamabad: Academy of Educational Planning and Management.

Sinha, D. (1977). Social disadvantages and development of certain perceptual skills. *Indian Journal of Psychology, 52,* (2), 115-132.

Spady, W. (1994). Choosing Outcomes of Significance. *Educational Leadership*, 51*(6),* 8–22.

UNESCO, (2000). *Report of the education for all*. Islamabad: Ministry of education Government of Pakistan

Wang, T., Ren, X., Schweizer, K., & Xu, F. (2016). Schooling effects on intelligence development: Evidence based on national samples from rural and urban china. *Journal of educational psychology,36*(5), 831-844.