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Prof. Jose P. Mattam  
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## ACHIEVING PEACE AND NATIONAL UNITY THROUGH SCIENCE AND ICT

Amatullahi Muhammad Sanusi\*  
Nabila Nasir Zahradeen\*\*

### Abstract

*This paper focuses on conflict confronting peace and national unity. The problem was solved through the following: science education and peace, science education and technology development, science education technological development peace and national unity, ways through which information and communication technology can achieve peace. It concluded that the conflicts of Nigeria was as a result of poverty, illiteracy and unemployment. Recommendations were proffered that the best approach for solving the problem of poverty and unemployment is government should make invest more in the practical aspects of science, information and communication technology, rather than the theoretical part that is read and forgotten.*

### Introduction

Conflict is a word we are now very familiar with in Nigeria. In the north there is Boko Haram insurgency, in the south east it is the indigenous people of Biafra (IPOB) which is agitation for break up, while in the south south is Niger-Delta insurgency. The country is grappling with enormous security related problems that are threatening its mutual existence as a nation and united entity.

From 2010 to date, Boko Haram insurgency has claimed the lives of many innocent people. In February 2017 the Borno

state governor Kashim Shettima declared in News that more than 100 thousand people have been killed as a result of Boko Haram insurgency with the displacement of 2.4 million people. In 2017 UNICEF announced that about 51 Percent of schools in Borno state were closed as a result of Boko Haram, affecting 3 million children. With the abduction of more than 200 schools girls at Chibok in Borno State, the Boko Haram insurgency has tremendously affected education in Nigeria.

Kano state had at its own share of the insurgency, that led to the death of

\* Assistant Professor, School of Early Child Care and Primary Education, Kano, Nigeria

\*\* Assistant Professor, Federal College of Education, Kano, Nigeria.

many people in schools at churches and in mosques. In September 2014, at federal college of education Kano, suicide bombers raided the school campus killing 20 and injuring 50 people.

In the Niger-Delta regions there are many militant groups that are busy vandalizing pipelines and other key oil installations which is creating a lot of economic problems for the country. There are also the Fulani-Herdsmen and farmers clashes which has also caused lives. Kendra (2010) posits that “it has been observed with few exceptions most conflicts since the world war two are mainly intra state in nature. Umaru (2015) opined that the lack of unity in Nigeria was born out of the interest of the colonial masters whose sole interest was not for the sake of unity in Nigeria, rather to pave way for their exploitive missions.

Science education is the relation to mathematics and to technology and an understanding of the nature of science should also be part of their education. An explicit goal of the National Science Education Standards is to establish high levels of scientific literacy. It is also the field concerned with sharing science content and process with individuals not traditionally considered part of the scientific community.

Information and Communications Technology – or technologies (ICT) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and

applications associated with them, such as videoconferencing and distance learning.

ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries. The term is somewhat more common outside of the United States. (Margaret Rouse 2005). ICT is the digital processing and utilization of information by the use of electronic computers. It comprises the storage, retrieval, conversion and transmission of information (Ifueko, 2011).

Information technology (IT) is the integration of computer technology, mainly in the form of internet and information management (Baikie, 2003). It provides opportunities for the use of hand texts and images, numbers and graphs, sound and music as well as enable them process information in the following ways: storage and organization, retrieving, storing and analyzing, presenting and communicating. In other words access to information is increased through computer based technologies (Nwagbo and Okoli, 2008). World Bank (2002) stated that the internet is a Powerful tool for improving the efficiency, quality of range of Public service, unity of countries and the world at large.

ICT is the branch of engineering that deals with the use of computers and telecommunications equipment to store, retrieve, transmit and manipulate data. (Daintith, 2009). ICT covers all forms of computer and communications equipment

and software used to create, design, store, transmit, interpret and manipulate information in its various formats. Personal computers, laptops, tablets, mobile phones, transport systems, televisions, and network technologies are just some examples of the diverse array of ICT tools.

### **Definition Of The Concepts**

#### ***Science***

Science is the study of the nature and behaviour of natural things and the knowledge that we obtain about them. Science is also the systematic study of the nature and behaviour of the material and physical universe, based on observation, experiment, and measurement, and the formulation of laws to describe these facts in general term.

#### ***Information***

Information is an Instructions in a formalized manner, which should be suitable for communication, interpretation, or processing by human or electronic machine. It is a stimuli that has meaning in some context for its receiver.

#### ***Communication***

Communication is all of the procedures by which one's mind may affect another". Their communication model consisted of an information source: the source's message, a transmitter, a signal, and a receiver: the receiver's message, and a destination. Shannon and Weaver, 20 ). It is true that communication can be used as a medium of peace building. Since communication in all its forms can be used to create and exchange meaning, it can be used to achieve

peace through peace talks and negotiations. Although other forms of communication can be exploited to achieve peace in societies.

#### ***Technology***

Technology is a body of knowledge devoted to creating tools, processing actions and extracting of materials. The term 'Technology' is wide and everyone has their own way of understanding the meaning of technology. We use technology to accomplish various tasks in our daily lives, in brief; we can describe technology as products, processes or organizations. We apply technology in almost everything we do in our lives, we use technology at work, we use it to, extract materials, we use technology for communication, transportation, learning, manufacturing, creating artifacts, securing data, scaling businesses and so much more.

#### ***Peace and Unity***

A state or period in which there is no war or a war has ended is called Peace. In a behavioural sense, "Peace" is generally understood to be a lack of conflict and freedom from fear of violence between heterogeneous social groups. Unity is the state or quality of being one or united into a whole. The word "Unity" means the condition of being one, a totality of parts, a state of harmony. Unity adds the most important dimension of successful living – the spiritual dimension.

#### ***Peace and Science Education***

Peace is amongst humanities most cherished values. David (2006) defined peace as the absence of war, fear, conflict, anxiety, suffering and violence (as cited in Ekanem, 2013, p. 5). In a nut-shell, peace is when there



is no violence or conflict among people, and Peace leads to unity and national stability.

Science education is a way through which a nation can gain peace. Where peace is sustained national unity is achieved. As Cincotta(2003) asserted that as the level of unemployment or illiteracy goes up, more crisis will arise. In light of this it is wise to say that unemployment plays a key role in intra-state conflicts in developing countries (as cited in Christophe, 2010, p.3). When people are engaged or busy with their day to day activities they have no time for creating chaos. There is a proverb that an Angry man is a hungry man and also an idle mind is devils advocate. To avoid conflict, a nation has to keep it's youth engaged and this can be achieved through science education.

### **Science Education and Technological Development**

Science education and technological education go hand in hand. While science is obtaining the information, technology is applying that information technically into something worth. Science through technical education aims in producing development to a country as well producing self empowerment to individuals of the society. Science and technical education also helps people in decision making. The focus on science and technological education will equip individuals with skills in high tech manufacturing information and communication technology, in the ICT driven economy. As the world becomes globalized, the future depends on people with technological sophistication. Technology has become the key agent of development nowadays.

Woodhall(1997) contended that investment in technological education and training produces benefits for individuals and for the society as a whole (ascited by Peter,2014). The role of science and technological education is very important for self empowerment among youths since the government cannot employ every graduate.

Oboada& Jerome (2012) stated that development is used in measurement of human comfort and satisfaction. Also Ekanem(2013) opined that development occurs when technological change either through the transformation or transfer among sectors positively and spontaneously impact development.

The scientific and technological revolutions of the 21st century is coming from a new dimension based on micro-processor, telecommunications, biotechnology, nanotechnology etc. Countries that have people who specializes in these fields will open ways for job creation that will minimise unemployment which in turn will lead to peace and unity.

### **Science Education, Technological Development, Peace and National Unity**

Through science and technology as nation can achieve development. Development yields peace and peace brings about national unity and stability. Histoshi (2014) stated that scientific research is a true peace maker. For mankind, Basic science unifies people from all nations. If we look at China and the ways through which the Chinese invested in science and technology to develop their economy and national prestige which after year of hard work has yielded a positive outcome. The Chinese government placed



emphasis through funding and reform on science and technology as a fundamental part of the socio-economic development of the country.

Calvin & Geoff (2010) stated that between 2000 and 2008 the number of engineers and scientists doubled to 1.5 million. The number of doctorate awards in science and engineering have increased to 10 folds since the early 1990's. In 2009 alone, China produced over 1000 PhD graduates in engineering, Mathematics, information, communication technology and computer science more than any other country.

Poverty and unemployment are the major factors that cause conflicts in Nigeria. Nigeria should look at ways through which China has reformed its economy by investing more into science and technology. Nigeria should broaden or widen areas such as space science, military technology, Nano technology, drone tech, bio-technology, genetics, nuclear science and other science related areas. This will improve our economy as well as help reduce unemployment. The government should also invest in factories so that we will be manufacturing and at the same time exporting our manufactured items to other countries to gain foreign income.

### **The Role of Information and Communication Technology in Nurturing Peace and Unity**

Information Communication Technology (ICT) had been proved to be a significant instrument in peace building. The contributions of ICT in fostering Peace and National Unity in any country can not be overemphasized. Peace and national

unity can be achieved through the following processes:

#### **Socialisation**

In an organizational setting, socialization refers to the process through which a new employee 'learns the ropes,' by becoming sensitive to the formal and informal power structure and the explicit and implicit rules of behaviour. In education, ICT hold out the opportunity to revolutionize educational methods, expand access to quality education and improve the quality of the system (World Bank, 2002).

#### **Collaboration**

By collaborating, coordinating a lot of activities into both social media and online blogs to disseminate and understand other people way of life. Therefore it is an agent of unity because of the ideology of knowing other people's norms values, skills as well as their way of life. This streamlines and promotes love among people globally, locally, internationally, regionally as well as continentally.

ICT provide organized collection of people and promote awareness to understand set of things, analyse it in order to hold a specific goal, outcome or reach a decision.

#### **Security**

Security is an indispensable part of our lives. With ICT, automated security surveillance system, national security can be ensured. Security brings protection of the citizens of a nation, presumably against premature death, avoidable ill health, the massive handicap of illiteracy etc. Also the avoidance of various indignities likely to confer injury, insult and contempt, on

our lives destitution, penury, incarceration, exclusion, geographical displacement, extortion as in robbery and police harassment and the corrupt practices of bureaucrats in public service provides agencies of government (Sen, 2002 in Onyishi, 2012).

When the security situation of a country is ensured, the citizens of the country therefore strive for healthy competition among themselves and other nations which promotes national unity. ICT-based multi-agency security room of the entire country situated in strategic places such as in Police headquarters, State Security Service, Presidency etc. where the totality of the automated security monitoring activities across the country are displayed online with video, audio, data and graphics with command and rapid response channels (Nkanga, 2010). Computer surveillance involves the monitoring of data and traffic, example; Cell phone and broadband internet traffic (e-mail, web traffic, instant messaging etc.) required to be available for unimpeded real time monitoring by Federal Law Enforcement Agencies. Many forms of technologies can be used such as surveillance cameras, social network analysis, biometric surveillance, data mining profiling, corporate surveillance, satellite imagery etc., to control armed robbery, terrorist, etc. on major highways (Gbolade, 2011). When the security of a Nation is ensured, it will help usher in national unity and peaceful coexistence among citizens.

## **Reconciliation**

Information campaigns to promote reconciliation can take many forms. ICT can be used to influence political leaders and audiences at an international level. Influencing political elites is vital, since it is such groups that usually generate and sustain organized violence; tactics to influence them may include political or financial incentives; and political and military deterrents; however, ICT can also be used to promote information exchange and dialogue between local communities. Rather than seeking to promote a solution from outside, the goal is simply to create space for collective problem solving between the protagonists. Local exchanges can be supplemented by linking people to people, both in country and in Diaspora populations. Sometimes this must be done with the acquiescence of local political elites; at other times it must bypass those elites and speak directly to the communities involved.

## **Good Governance**

Today, society is demanding more transparency on the part of the governments, more decentralization, and more independence to express demands, desires, Prerogatives and priorities. Citizens Participation is one of the most important components of good governance, where leaders are effectively concerned and engaged in the satisfaction of the needs of the citizens. Good governance is understood to denote an interaction process between government and society. Good governance is safeguarded as long as governmental processes are transparent, individuals organize themselves, express

their priorities and demands to government officials.

Good governance promotes national unity. The use of ICT in promoting National unity has necessitated the government innovative policy to provide facilities and necessary infrastructure for the promotion of ICT at all levels of government (FGN, 2004). According to Mani (2001), innovative policy are those efforts by Government that encourage the accumulation, diffusion, commercial use of new products, processes and services by security agents, education ministries and commerce at both federal and state levels.

### **Job Opportunities**

Poverty brought about by unemployment is one of the major causes of insecurity and lack of unity in Nigeria. ICT sees to the preparation of individuals for paid employment and self employment. It is regarded as an instrument for promoting environmentally sound, sustainable development and a veritable tool for alleviating poverty (FGN, 2004). For instance, deployment of first class information technology solution and services can make significant contribution to efficiency of business operations and the overall productivity and profitability of business.

When young people are trained and encouraged by the government at all levels, on basic computer application in various aspects of entrepreneurship, unemployment would be a thing of the past and national unity will be entrenched. True knowledge of computer skills prepares an individual for paid

and self-employment. It provides for the opportunity for individuals to express their creativity, boast esteem, instil discipline and breaks social vices (Olinya and Ukwungwu, 2007). For instance, individuals can establish computer centres after training or be employed by big computer establishments, thus promoting national unity. The support by government at all levels immediately after computer training by provision of computer and its accessories is a step in the right direction, as this will help the unemployed graduate to establish call centres, business centre and cyber café, which will provide employment, thereby reducing poverty and unemployment in the country.

### **Recommendations**

1. The best approach for solving the problem of poverty and unemployment is government pay more attention on the practical parts of science and technological education. Rather than the theoretical part that's read and forgotten. This will enable students to be self reliant and earn money through their innovative ideas.
2. Infrastructures should be provided for all levels of Education. In the sense that primary school should have labs and be conducting practicals more than theory.
3. Adequate supervision of government set committee on all science schools and teachers to standardized science and technological education.
4. Highly trained and qualified teachers in areas of manufacturing should be provided at schools. So that at the primary stage they will be able to know the basic methods.

5. There is need a needfor organizing seminars, conferences and workshops that will help in understanding hoe ICT can be used to promote peace and national unity.
6. Government at all levels should ensure full utilization of ICT in Governance.

## Conclusion

In conclusion Nigeria is a country full of conflict and violence that arises as a result of poverty, illiteracy and unemployment. Science, informationand communication technology will significantly reduce or totally eliminate conflict.For National Unity to be entrenched in modern Nigeria, a solid base in science, Information and Communication Technology istobe provided. The paper suggests that the government innovative policy to provide facilities and necessary infrastructure for the promotion of ICT at all levels of governance should receive full implementation.

## References

- Akudolu, L. (2002). Information and Communication Technology (ICT) Centered Education: *A Necessity for National Development. Nigeria Journal of Computer Literacy*. Retrieved from [https://www.google.com.ng/url?q=http://www.lilianrita.com/lr2/journals.htm&sa=U&ved=2ahUKEwifzPjZr4zYAhUIPVAKHbY8AeIQFjADegQIGBAA&usg=AOvVaw2LlqiGWULqVLgw1Ai\\_fcBN](https://www.google.com.ng/url?q=http://www.lilianrita.com/lr2/journals.htm&sa=U&ved=2ahUKEwifzPjZr4zYAhUIPVAKHbY8AeIQFjADegQIGBAA&usg=AOvVaw2LlqiGWULqVLgw1Ai_fcBN).
- Calvin, J., Geoff, D. (2010, July 29). The rodeo engineers in China is e the US behind. *Cnn*. Retrieved from Cnn.com.
- Castells, M.(2001). Information Technology and Global Capitalism. In W. Hutton and A.Giddens (eds). *On the Edge Living with Global Capitalism*. London: Vintage. Retrieved from [https://www.google.com.ng/url?q=https://www.scribd.com/mobile/document/152650993/MANUEL-CASTELLS-Information-Technology-and-Global-Capitalism-in-Will-Hutton-Anthony-Giddens-eds-2001-On-the-Edge-Living-with-Global-Cap&sa=U&ved=2ahUKEwjsg8egsIzYAhUCaFAKHZ1NCOQQFjAAegQIDhAA&usg=AOvVaw2On eF\\_PFwhBgC7oyzQ3V4V](https://www.google.com.ng/url?q=https://www.scribd.com/mobile/document/152650993/MANUEL-CASTELLS-Information-Technology-and-Global-Capitalism-in-Will-Hutton-Anthony-Giddens-eds-2001-On-the-Edge-Living-with-Global-Cap&sa=U&ved=2ahUKEwjsg8egsIzYAhUCaFAKHZ1NCOQQFjAAegQIDhAA&usg=AOvVaw2On eF_PFwhBgC7oyzQ3V4V).
- Christopher, C. (2010). *Unemployment and participation in violence*. Paper presented at oriental and African studies conference. Retrieved from [https://openknowledge.worldbank.org/bitstream/handle/10986/9247/WDR2011\\_0022.pdf?sequence=1&isAllowed=y](https://openknowledge.worldbank.org/bitstream/handle/10986/9247/WDR2011_0022.pdf?sequence=1&isAllowed=y).
- Eminem, N. (2013). Peace and development. *Science education peace and national unity*, 1. Retrieved <http://www.globalacademicgroup.com/journals/world%20educators%20forum/SCIENCE%20EDUCATION%20FOR.pdf>.
- Federal Republic of Nigeria, (2004). *National Policy on Education*. Lagos: Federal Government Press.[https://www.google.com.ng/url?q=http://wbfiles.worldbank.org/documents/hdn/ed/saber/supporting\\_doc/AFR/Nigeria/TCH/National%2520Policy%2520on%2520Education.pdf&sa=U&ved=2ahUKEwiUv7bnsIzYAhVNPFAKHRnECI4QFjABegQIFhAA&usg=AOvVaw2ofhdPFcOIBwG9bFtvj7xd](https://www.google.com.ng/url?q=http://wbfiles.worldbank.org/documents/hdn/ed/saber/supporting_doc/AFR/Nigeria/TCH/National%2520Policy%2520on%2520Education.pdf&sa=U&ved=2ahUKEwiUv7bnsIzYAhVNPFAKHRnECI4QFjABegQIFhAA&usg=AOvVaw2ofhdPFcOIBwG9bFtvj7xd).
- Gbolade, (2011). ICT Application can reduce Unemployment, Crime rate in Nigeria. Retrieved on 7/12/2013 from <http://www.tribune.com.ng/index>.
- Histoshi, M. (2014). Science for peace and development today and tomorrow. *Berkeley news letter*. Retrieved news.berkeley.edu/2014/10/23/science-for-peace-development-today-and-tomorrow.

Kendra, D. (2010). *Building Peace and Transforming Armed Conflict*. Paper presented at international Peace Research Institute. Retrieved from [http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1050/Education\\_for\\_Peace\\_Building\\_Peace.pdf](http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1050/Education_for_Peace_Building_Peace.pdf).

Margaret R. (2015) What is ICT (information and communications technology - or technologies)? [Online] Available from: <http://searchcio.techtarget.com/definition/ICT-information-and-communications-technology-or-technologies> [Accessed: 9th April 2015]2).

Nkanga, E. (2010). Defending National Security with ICT. *This DayLive*. Nov. 17. <https://www.google.com.ng/url?q=http://journals.aphriapub.com/index.php/JOSCED/article/>



## DIFFERENT STRATEGIES TO OVERCOME DYSGRAPHIA

Dan George\*

### Abstract

*Dysgraphia is a specific learning disability in which the ability to express oneself through written language is impaired. Dysgraphia describes difficulty with writing. Dysgraphia is not the result of an intellectual impairment, nor is it dependent upon your ability to read. Dysgraphia causes problems with spelling, organizing words on a page, and putting your thoughts on paper. Dysgraphia is a learning disability that affects writing, which requires a complex set of motor and information processing skills. It can lead to problems with spelling, poor handwriting and putting thoughts on paper. People with dysgraphia can have trouble organizing letters, numbers and words on a line or page. There are many reasons for handwriting problems. They are brain damage, physical illness or deformity, intentionally poor penmanship or inadequate instruction, disorientation, multiple mental images and inadequate natural orientation. Kids with dysgraphia have unclear, irregular, or inconsistent handwriting, often with different slants, shapes, upper- and lower-case letters, and cursive and print styles. They also tend to write or copy things slowly. With proper instruction and tools, writing can also be improved and with the use of assistive technology and keyboarding, the need for writing can be reduced or eliminated.*

**Key Words:** *Dysgraphia, Overcome, Strategies, etc.*

### Introduction

Dysgraphia is a specific learning disability that affects written expression. Dysgraphia can appear as difficulties with spelling, poor handwriting and trouble putting thoughts on paper. Dysgraphia can be a language based, and/or non-language based disorder. If your child struggles with writing, you might hear some people call it dysgraphia. This term refers to challenges

in the skills needed to produce writing. That includes handwriting, typing, and spelling. Many people have poor handwriting, but dysgraphia is more serious. Dysgraphia is a neurological disorder that generally appears when children are first learning to write. Experts are not sure what causes it, but early treatment can help prevent or reduce problems. This is a nervous system problem that affects the fine motor skills needed

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\* Research Scholar, Department of English, Goa University, Goa



to write. It makes it hard for a child to do handwriting tasks and assignments.

Writing requires a complex set of motor and information processing skills. Not only does it require the ability to organize and express ideas in the mind. It also requires the ability to get the muscles in the hands and fingers to form those ideas, letter by letter, on paper. A person with this specific learning disability may have problems including illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time. Because writing requires a complex set of motor and information processing skills, saying a student has dysgraphia is not sufficient. A student with disorders in written expression will benefit from specific accommodations in the learning environment, as well as additional practice learning the skills required to be an accomplished writer.

Dysgraphia that is caused by a language disorder may be characterised by the person having difficulty converting the sounds of language into written form (phonemes into graphemes), or knowing which alternate spelling to use for each sound. People with dysgraphia can often write on some level and may experience difficulty with other fine motor skills, such as tying shoes. However, dysgraphia does not affect all fine motor skills. People with dysgraphia often have unusual difficulty with handwriting and spelling which in turn can cause writing fatigue. They may lack basic grammar and spelling skills (for example, having difficulties with the letters p, q, b, and d), and often will write the wrong word when trying to formulate their thoughts

on paper. The disorder generally emerges when the child is first introduced to writing. Adults, teenagers, and children alike are all subject to dysgraphia.

A person with dysgraphia may write their letters in reverse, have trouble recalling how letters are formed, or when to use lower or upper case letters. A few people with Dysgraphia lack only the fine motor coordination to produce illegible hand writing, but some people have physical tremor that interferes with writing. A person with dysgraphia may struggle to form written sentences with correct grammar and punctuation, with common problems including omitting words, words ordered incorrectly, incorrect verb and pronoun usage and word ending errors. People with dysgraphia may speak more easily and fluently than they write. Some experts believe that dysgraphia involves a dysfunction in the interaction between two main brain systems that allows a person to translate mental into written language.

## **Types Of Dysgraphia**

### ***Dyslexic dysgraphia***

With dyslexic dysgraphia, spontaneously written work is illegible, copied work is fairly good, and spelling is bad. Their written work is difficult to read. Finger tapping speed (a method for identifying fine motor problems) is normal, indicating the deficit does not likely stem from cerebellar damage. A Dyslexic dysgraphic does not necessarily have dyslexia (dyslexia and dysgraphia appear to be unrelated).

### ***Motor dysgraphia***

Dysgraphia is due to deficient fine motor skills, poor dexterity, poor muscle tone, and/



or unspecified motor clumsiness. Generally, written work is poor to illegible, even if copied by sight from another document. This shown that there are problem with in fine motor skills of these individuals. Letter formation may be acceptable in very short samples of writing, but this requires extreme effort and an unreasonable amount of time to accomplish, and cannot be sustained for a significant length of time. Spelling skills are not impaired. Finger tapping speed results are below normal.

### ***Spatial dysgraphia***

Dysgraphia due to a defect in the understanding of space has illegible spontaneously written work, illegible copied work, normal spelling, but normal tapping speed. Some children may have a combination of any two or all three of these. Symptoms in actuality may vary in presentation from what is listed here.

### ***Phonological Dysgraphia***

Phonological Dysgraphia is characterized by writing and spelling disturbances in which the spelling of unfamiliar words, non-words, and phonetically irregular words is impaired. Individuals with Phonological Dysgraphia are also unable to hold phonemes in memory and blend them in their appropriate sequence to produce the target word.

### ***Lexical Dysgraphia***

Lexical dysgraphia is evidenced when a person can spell but relies on standard sound-to-letter patterns with misspelling of irregular words. This is more common in languages such as English and French which are less phonetic than a language such as Spanish. This type of dysgraphia is very rare in children.

### ***Signs and symptoms of Dysgraphia***

- Cramped grip, which may lead to a sore hand
- Difficulty spacing things out on paper or within margins (poor spatial planning)
- Frequent erasing
- Inconsistency in letter and word spacing
- Poor spelling, including unfinished words or missing words or letters
- Unusual wrist, body, or paper position while writing
- Difficulty forming letters or numbers by hand
- Slow handwriting development compared to peers
- Children writing with crayons Illegible or inconsistent writing
- Mixed upper and lower case letters
- Difficulty writing and thinking at same time
- Difficulty with spelling
- Slow writing speed, even when copying
- Overreliance on vision to write
- Poor spatial skills (uneven spacing, poor use of margins)
- Difficulty articulating thoughts in writing
- Cramps or pain in the fingers, wrists, and palms while writing
- Awkward pencil grip
- Unusual posture or positioning when writing
- Excessive fatigue or burnout from writing

### ***Causes of Dysgraphia***

**Brain damage:** Can occur because the brain is starved of oxygen at birth or through near drowning, sustained high temperature,

head injury or stroke. You would know about it if this was the cause of poor handwriting. The body is designed to heal itself, and can do much given time. Development may be much delayed but love, a stimulating but not overwhelming atmosphere and faith in the child, or adult can gradually achieve much. Handwriting would probably be a long way to the end of any list of goals for such a person.

**Physical illness or deformity:** could also be due to a birth defect, an illness or an accident. If nerve damage leads to paralysis the normal routes to handwriting will not be open, but I had a brother who broke his neck when he was 15, leaving him with no control over his hands. He learned to use trick movements of his upper arm to write using a pen bound to his hand.

**Intentionally poor penmanship:** This is not necessarily related to dyslexia, but many, if not most, people who do this are likely to be dyslexic. People with poor spelling, punctuation or grammar may intentionally use poor handwriting in an effort to hide these facts. Poor spelling, punctuation and grammar can frequently be side effects of dyslexia. Give the student the opportunity to correct their dyslexia and they can address these issues; in which case the need for poor handwriting is gone. You may suspect that this is the cause of poor handwriting if the quality of handwriting varies, being good when words can be spelled easily but poor when there are words consistently mis-spelled. There may be cases, however, when such symptoms are not intentional but are connected with disorientation connected with confusion. This will be considered in a minute.

**No or inadequate instruction:** If a student has never been given any instruction in penmanship, this may lead to dysgraphia. However, as a home educator I know many children who have no problem teaching themselves how to write once they are ready to do so. This, though, may be at a later age than is required for school. Inadequate instruction is frequently related to dyslexia. The problem is not that they have not been in a situation to receive instruction, simply that disorientation has meant that they were unable to engage with the instructions being given to the class and take onboard the necessary information, thus their instruction has been inadequate because the teacher either did not recognize that the child was disorientated, or did not understand the confusion causing disorientation so could not help the child resolve that confusion. Once the child is able to be in an orientated state when writing, it is easy to show how to hold the writing implement properly and draw the letters correctly.

**Disorientation:** The ability to actively alter your focus, in order to include the imagination in the thinking process is one of the advantages of the thinking and learning style of the dyslexic individual. However, it can create distortions of perception when used with symbols, such as letters or words. Disorientation as a cause of poor handwriting is linked to dyslexia; it follows the same stimulus response model as reading dyslexia. The individual in an orientated state meets a stimulus that causes him to disorientate, perhaps only for a split second, but this causes the handwriting to go awry. The disorientation can occur in response to a line or shape or to a movement, but lines,

shapes and movements on their own do not cause disorientation. The thing that triggers disorientation is an emotion. This emotion could be confusion, as is the case with reading dyslexia. Dyslexics find symbols confusing, hence they can trigger into disorientation when they see letters. Most find a way round this once the letters are part of a word with a picture, such as cat, tree or table, but words without a picture, such as and, but, the or of will still cause confusion that triggers disorientation because dyslexics think with the meaning, not the sound, of words or groups of words. Confusion over letters and words can trigger disorientation when writing as well, leading to dysgraphia; because, when disorientated, the individual will not perceive accurately so will not see that the letters he is drawing are malformed. This letter F, drawn large, clearly reveals the glitch caused, in this case, by a line trigger. This glitch is not caused by a disorientation due to confusion but by an emotion from the student's past life experience which is brought into the present when the student meets the stimulus of this line. Somehow an emotion from the past life experience of the student has become subconsciously linked to a line drawn in a particular direction or a certain shape or a particular motion.

**Multiple mental images:** Some dyslexics have an amazing ability to reproduce almost exactly what they see. Even if they cannot actually achieve the perfection they see in their mind's eye, they have an exact picture that they are trying to copy. Problems arise if the teacher helping the child learn to write does not understand what can happen when a visual model is given to a picture thinker.

Inadequate natural orientation otherwise known as dyspraxia: This means that at some time very early in a person's life, much earlier than might happen with most dyslexics, they began to disorientate. This led to the individual never being totally sure of where physical reality is found.

Their own natural orientation will be in an unfavorable place.<sup>[1][2]</sup> This person has poor co-ordination, may have perceptual or speech difficulties, will have difficulty telling left from right and with crossing the midline of the body with hand or foot. They will also be unable to scan across the midline with their eyes. Not only is visual perception affected, sound will also be affected. They may hear sounds as garbled, too loud or soft or coming from the wrong direction. If we look straight at a letter A we can see the line of symmetry. A dyspraxic child cannot see this. Because of his midline barrier, if he looked straight at it he would only see half of it. To see the whole letter he has to shift his point of focus in order to see it on one side of the midline. In doing this he loses the symmetry and the shape distorts. Straight lines will become curvy, as in a distorting mirror at the funfair. No matter how much instruction he gets he will never see the letters accurately so his writing will always be a problem. Identifying the problem is easy. If the problem is dyspraxia the lines will not be straight and there will be no symmetry in any of the letters.

### Strategies to Overcome Dysgraphia

Writing is a complicated process that involves many skills. There are no specific teaching approaches or programs just for dysgraphia. That doesn't mean teachers can't help kids with writing issues, however.

There are specific teaching techniques to help kids with dysgraphia. (They can help other struggling writers, too.) Teachers will choose the strategies they use based on a student's specific challenges. Writing challenges are often related to reading issues. Many kids with dysgraphia also have dyslexia. They may need to work on basic reading skills like decoding in order to write well.

Decoding is especially important for spelling. So to help with this skill, teachers might focus on:

- Letter-sound relationships
- Syllable patterns
- Relations between meanings and letter groupings

Kids with dysgraphia don't naturally pick up on the rules of writing. Teachers use explicit instruction to help them learn these rules. They might teach kids where to put verbs and nouns in a sentence, for example, and how and where to use punctuation. They also might teach students a prompt or cue to help them recall the unique parts of a particular kind of writing, like a story. (This is called a mnemonic.) And teachers might give students a graphic organizer to help them plan a paper. One area kids with dysgraphia often struggle with is transcription. This broad skill covers handwriting, keyboarding and spelling. Teachers may use multisensory techniques to help kids improve in this area. Assistive technology for writing can also help kids build skills and work around weak spots. There are also a number of classroom accommodations for dysgraphia. These include extended time, teacher-made outlines for taking notes, and being able to answer test questions orally instead of in writing.

### *Tips for students*

Stretch out your hands. Before you begin an activity such as typing or handwriting, it's a good idea to shake your hands out, rotate your wrists, wiggle your fingers and maybe even squeeze a stress ball. Some people press their fingers into putty, anything to get the blood flowing and prepare the muscles.

Learn to touch-type. Computers are recommended for people with dysgraphia because they reduce the number of variables that need to be controlled including letter formation, letter and word spacing and even writing text left to right along a straight line. Moreover, they allow for ease of correction without the stigma of erasure marks and they provide access to spell-checkers. An individual who learns how to touch-type is even better off because they can use muscle memory in the hands to help with spelling and enhance literacy skills, such as decoding and sight-reading.

Use cursive vs. print. If you must write by hand, many experts see cursive as an easier medium than print because there is more connectivity between letters. This reduces the distraction caused by spacing. Cursive script also has fewer reversible letters and requires a steady movement and flow, which can be beneficial to individuals who struggle with fine motor skills.

Request accommodations. Students who struggle with dysgraphia should request accommodations in the classroom including being able to record classroom discussion and their teacher's instructions with an audio recorder, or use a computer to take notes and complete written assignments. Keep in mind dysgraphia can get in the way of

performance, therefore, assessment measures might also need to be adjusted. For example, a short answer section could be replaced by multiple-choice questions that don't require a text-based answer.

Try different paper and pens. It can sometimes make a difference to write by hand on paper that has thick or raised lines. Paper of different colours may also be beneficial. Fine motor skills impact the way an individual grips a writing utensil, thus consider using a thicker pen or a pencil with a rubber grip.

Make audio-recordings. Writing is a cognitively taxing activity for individuals that is made even more difficult when they have to both receive information during a lecture and write it down. Even copying text from the board is hard for someone who struggles with dysgraphia. That's why it is recommended that individuals bring an audio recording device or be provided with handouts that cover what was discussed. It can also be useful to pair a dysgraphic student up with a note-taking buddy.

Recite word spelling out loud. Spelling can sometimes be challenging because dysgraphia impacts on orthographic encoding or translating words into their component letters. Spelling out loud is not impacted therefore individuals should complete spelling quizzes verbally and recite a word's spelling quietly to themselves before attempting to write it down. It also helps to learn touch-typing as repeat drilling of a word means spelling is learned via muscle memory in the hands.

Brainstorm ideas before writing. When composition is impacted at the phrase,

sentence and paragraph level, it is often because there is difficulty in translating information and organizing it on paper. It can help to access prior knowledge of a topic and brainstorm ideas before you begin as this activates them in the brain and helps you prepare for writing.

Use outlines and multiple drafts. When organization and expression are still difficult, a student with dysgraphia may wish to make an outline that organizes ideas in a clear manner. Working in multiple drafts means there is less pressure or stress for getting something right on the first try. It's also a more natural approach to writing. Reviewing previous information and re-writing and adapting to ensure a reader can follow a train of thought are habits found in good writers.

Think about your ideas and elaborate on each part of the ideas.

Organize the ideas you want to express. This type of organization is easily performed using visual graphic organizers. For example, you can create a mind map so that the main idea is placed in a circle in the center of the page and supporting facts are written on lines coming out of the main circle, similar to the arms of a spider or spokes on a wheel. Many visual organizer formats can be used, with different formats appropriate for different situations

Analyze your graphic organizer to determine if you included all of your ideas. If you have difficulty with spelling, make a list of the more difficult or important words you may want to include in your writing. Having this reference list will help your writing flow more because you will not have to stop to think of how to spell the big words.



Now, write a draft of your paragraph (or paper), focusing on the content or ideas. If you have a computer, it is best if you type your draft directly on the keyboard. This will make it much easier to proofread and revise.

**Proof and editing:** you will need specific techniques and strategies to proofread your paper, checking for appropriate use of punctuation, capitalization, and grammar. Then use a spell checker to fix your spelling.

Revise your paragraph, incorporating the corrections you determined above.

Proofread your paragraph again, editing and revising if necessary.

Develop a final product, either in typed or written form.

The overall goal of compensations is to help the student perform more automatically and still participate in and benefit from the writing task. The goal is to allow the student to go around the problem so that she can then focus more completely on the content. Some example strategies include:

**Understanding-Understand** the student's inconsistencies and performance variabilities.

**Print or cursive-**Allow the student to use either form. Many dysgraphic students are more comfortable with manuscript printing.

If getting started is a problem, encourage pre-organization strategies, such as use of graphic organizers.

**Computer-**Encourage student to become comfortable using a word processor on a computer. Students can be taught as early as 1st grade to type sentences directly on the keyboard. In doing so, do not eliminate handwriting for the child: handwriting is

still important but computer skills will be invaluable for longer and important tasks.

For older students, encourage use of a speech recognition program combined with the word processor so the student can dictate his papers rather than type them. This increases speed and efficiency and allows the student to focus more completely on complex thoughts and ideas.

Encourage consistent use of spell checker to decrease the overall demands of the writing task and encourage students to wait until the end to worry about spelling.

Encourage use of an electronic resource such as the spell check component in a Franklin Language Master to further decrease the demands. If student has concurrent reading problems, a Language Master with a speaking component is most helpful because it will read/say the words. This author prefers the Language Master 6000 because of its large font size and speech clarity.

Do not count off for poor spelling on first drafts, in-class assignments, or on tests. However, depending on age, student may be held responsible for spelling in final drafts completed at home.

Have student proofread papers after a delay, using a checklist of the points to check. If students proofread immediately after writing, they may read what they intended rather than what was actually written.

If necessary, shorten writing assignments.

Allow extra time for writing activities.

**Note taking:** Provide student with copy of completed notes (perhaps through a note taking buddy who can use carbon paper) to fill in missing parts of his own notes.

Note taking provide a partially completed outline so the student can fill in the details under major headings. As a variety, provide the details and have student fill in headings while listening.

Allow student to tape record important assignments and/or take oral tests.

Staging: have students complete tasks in logical steps or increments instead of all at once.

Prioritization: stress or de-emphasize certain task components during a complex activity. For example, students can focus on using descriptive words in one assignment, and in another, focus on using compound sentences. Also, design assignments to be evaluated on specific parts of the writing process (prioritization).

Remove neatness as a grading criteria, except on computer-generated papers.

Reduce copying aspects of tasks, such as providing a math worksheet rather than requiring student to copy problems from the book. A copying buddy can be helpful in copying the problems using carbon paper.

Have younger students use large graph paper for math calculation to keep columns and rows straight. Older student may use loose leaf paper turned sideways to help maintain straight columns.

Allow and encourage use of abbreviations for in-class writing assignments (such as b/4 for "before" or b/c for "because"). Have the student keep a list of appropriate abbreviations in his note book and taped to his desk for easy reference. Begin with only a few and increase as the first few become automatic.

Reinforce the positive aspects of student's efforts.

Be patient.

Encourage student to be patient with himself.

## **Conclusion**

Dysgraphia is a neurological disorder characterized by writing disabilities. Specifically, the disorder causes a person's writing to be distorted or incorrect. In children, the disorder generally emerges when they are first introduced to writing. They make inappropriately sized and spaced letters, or write wrong or misspelled words, despite thorough instruction. Children with the disorder may have other learning disabilities; however, they usually have no social or other academic problems. Cases of dysgraphia in adults generally occur after some trauma. In addition to poor handwriting, dysgraphia is characterized by wrong or odd spelling, and production of words that are not correct (i.e., using "boy" for "child"). The cause of the disorder is unknown, but in adults, it is usually associated with damage to the parietal lobe of the brain. The causes of motor dysgraphia are poor dexterity, deficient motor skills or poor muscle tone. People with motor dysgraphia need very much time and a huge effort to form letters. The writing in this case is illegible or poor at its best, and drawing is difficult. The finger tapping of these people is below normal, and though the spelling is normal, many times the writing is slanted because of holding the pen incorrectly. Accommodations are often needed to help dysgraphic children handle written work, including reduction of the load of writing in class and in homework,



extended time to produce written work, and assistive technology to allow dictation.

Most dysgraphic children benefit from being allowed to use a keyboard and a word processing program, which reduces motor demands and allows them to edit and reorganize written work. Since writing is difficult, children benefit from Smart Boards on laptops or tablets to record writing on the board, and accommodations for note taking, such as using another student's notes or a study guide/outline of lecture information provided by the teacher. Many children with dysgraphia are allowed to use alternative methods to demonstrate knowledge rather than written exams.

## References

- Barr. (1974) A Study of auditory perceptual disorders in children with reference to language learning, New Delhi: NCERT.
- Blackman, S and Goldstein, K.M.. (1982) Cognitive styles and learning disabilities. *Journal of Learning Disabilities*, 15(2), 106-115.
- Bock, M and Mercer, C.D. (1981) Teaching language skills, In C.D. Mercer and A.R. Mercer (Eds), *Teaching students with learning problems*. Columbus, Ohio: Charles E. Merrill
- Cartledge, Gwendolyn and Diance, Stupay Caroline Kaczala. (1986) Social skills and social perception of LD and non handicapped elementary school students. *Learning Disability Quarterly*, 9(3), 226-234.
- Dev, P.C. (1998) Intrinsic motivation and the students with learning disabilities. *Journal of Research and Development in Education*, 31(2), 98-108.
- Englert, C.S., Culatta, B.E and Horn, D.G (1987) Influence of irrelevant information in addition word problems on problem solving. *Learning Disability Quarterly*, 10, 29-36.
- Galbraith, A and Alexander, J. (2005) Literacy, self esteem and locus of control. *Support for learning*, 20(1), 28-34.
- John, W. Best. (1989) *The concept of experience: New directions for child development*, San Francisco: Ussey-Bass.
- Klassen, M.R and Lynch, S.L. (2007) Self-efficacy from the perspective of adolescents with LD and their specialist teachers. *Journal of Learning Disabilities*, 40(6), 494-507.
- What is dysgraphia, dyslexia SPED foundation, <https://dsf.net.au/what-is-dysgraphia/>
- Dysgraphia ( problems with writing), <http://www.autism-help.org/comorbid-dysgraphia-autism.htm>
- What Is Dysgraphia? What Should I Do If My Child Has It? <https://www.webmd.com/add-adhd/childhood-adhd/dysgraphia-facts#1-3>
- Dysgraphia symptoms in children, <https://www.readandspell.com/dysgraphia-symptoms-in-children>
- Signs, Symptoms, and Treatments for Dysgraphia in Children, <https://www.cheshirefitnesszone.com/signs-symptoms-and-treatments-for-dysgraphia-in-children/>
- The 7 Causes of Dysgraphia, Speaker: Fionna Pilgrim, <http://www.dystalk.com/talks/85-the-7-causes-of-dysgraphia>
- Treatment for Kids With Dysgraphia, <https://www.understood.org/en/learning-attention-issues/treatments-approaches/treatment-options/treatment-options-for-dysgraphia>
- 9 Strategies for dysgraphia, <https://www.readandspell.com/strategies-for-dysgraphia>
- Strategies for Dealing with Dysgraphia, <http://www.ldonline.org/article/5890/>



## TRANSFORMATION OF PAIN INTO RESISTANCE: A DECONSTRUCTIVE ANALYSIS OF SHARANKUMAR LIMBALE'S THE OUTCASTE AKKARMASHI

Molly M.A\*

### Abstract

*Sharankumar Limbale's The Outcaste, exposes the atrocities faced by the Dalits, and the anger that boils within them as a reaction to these prejudices. He projects before the readers an objective and disinterested account of his life from birth to adulthood, carefully creating the image of his community in conflict with the contemporary social and cultural conditions. This personal account uncovers the untouchable's quest for dignity and the recognition of their human worth. The present paper highlights the emergence of the Dalit from a life of oppression and suppression to a free world. The Dalit authors depict assertion of human rights, self-pride, rebel against social unfairness, annals of individual and aggregate enduring, hopes and aspirations for a new society devoid of discrimination. The writing of autobiography is used by the members of this oppressed group to achieve a sense of identity and mobilize resistance against caste and class oppression. In this way they not only subverted their chattel like status but also established rather effectively their presence with dignity as is revealed in the following analysis. Limbale's Auto Narrative anticipates that, all people should be respected and treated as human beings irrespective of their caste.*

**Keywords:** Dalit, Oppression, Caste System, Autobiography, Poverty, Identity, etc

### Introduction

Dalit Literature is a new literary canon acquired a recognizable identity in the late twentieth and early twenty-first century the world everywhere and Indian literary scene specifically. Now-a-days, Dalits give voice to their identity through literature, and it has

become a powerful medium for the detail glimpse of the inherent identity crisis and the resultant quest for identity. Sharankumar Limbale's 'Akkarmashi' serves the purpose to a farther extend, for it effectively deals with the question of identity and the yearning for

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\* Assistant Professor, Dept. of English, Pavanatma College, Murickassery (P.O), Kerala.  
Email: [mollyma812@gmail.com](mailto:mollyma812@gmail.com)

asserting an identity. The miseries and crisis that the narrator underwent are common to the whole Dalit community. So he can be a representative, and can claim that his solitary and individual life was same as the lives of the community. So it is both representative and solitary.

The deconstructive analysis of Limbale's autobiography mirrors the pathetic life of the ostracized in name of caste. It is observed that Limbale has used the power of language to express his feeling of being beleaguered. His aim is to change the fate of the suppressed through his writing. His torment is not only the torment of the individual, and there is nothing romantic about it. His problem is neither ideological nor philosophical. The reality of his life is too hideously shocking, beyond the capacity of fantasy or imagination. His tragedy is universal, trampling him down and disfiguring his humanity. In *Outcaste* he gives a clarion call to all Dalits to change their fate.

Limbale composed his life account when he was a quarter century old. He questions the very establishments of Indian caste society and the morality of the upper castes. He denounces the affectation of Indian caste society by saying that religion is the genuine culprit since it authorizes the upper ranks certain rights to abuse the lower caste. His study of Indian caste framework worth citing:

People who enjoy high-caste privileges, authority sanctioned by religion, and inherit property, have exploited the Dalits of this

land. The Patils in every village have made whores of the wives of Dalit farm labourers. A poor Dalit girl on attaining puberty has invariably been a victim of their lust. There is a whole breed born to adulterous Patils. There are Dalit families that survive by pleasing the Patils sexually. The whole village considers such a house as the house of the Patil's whore. Even the children born to her from her husband are considered the children of a Patil. Besides survival on the charity of a Patil what else can such a household expect? (38)

It was a social custom in Maharashtra and different states in India, still pervasive in numerous parts even today that youthful Dalit women were used by the upper rank/class landowners to fulfill their sexual wishes. Since these women were not by any means wedded - they were simply kept - the children born to them were considered as illegitimates in light of the fact that nobody asserted to be their fathers. Much of the time these Dalit women needed to fulfill the desires of a few landowners in their lifetime and consequently they couldn't name the genuine fathers of their children. These women had scarcely any financial security. By and large they drove hopeless lives on the grounds that in the greater part of the cases the bosses forsook their courtesans when they began delivering children. These women not only lost their social status, they also had no means to support the children born to them. Society looked down upon them as whores. Hence, these women and their children were dealt with as the outcastes. Limbale's personal history widely manages how, being Dalit, his mom and grandma were the casualties of this uncontrolled social insidiousness.

Conceived of a high caste father, a Patil and an untouchable mother, a Mahar, Limbale turned into an "akkarmashi", as his parentage was unacknowledged through the authenticity of marriage. This scourge of being 'bastard' followed Limbale all throughout his life. It turned into the most deplorable of obstacles, a miserable circumstance, being tormented for being an akkarmashi inside his family and stretched out to the most decisive moments throughout his life as looking for an admission in school or college and the possibility of getting hitched. More than the general shocking life of Dalits, where one endures in groups, what affects Limbale is his isolated disgrace of being an akkarmashi. Limbale is reminded from time to time by the society, his position within the position less group of outcasts. He laments: "... a man is recognized in this world by his religion, caste, or his father. I had neither a father's name, nor any religion, nor a caste. I had no inherited identity at all" (59). This lack of inherited identity, the stigma of "akkarmashi" hurls around him intolerable humiliations.

The narrator-protagonist is somebody more substandard compared to a Dalit. It is astounding to note that he is an untouchable among the untouchables. His identity is that of an "Akkarmashi" and this is the thing that the narrator tries to display through the numerous scenes of his life. "Akkarmashi" in Marathi implies eleven. It needs another one to finish itself, to wind up twelve, a dozen which signifies completeness. With a government job and education to cushion him Limbale still thinks that it is hard to get a spouse. He never enjoyed the prospect of selecting a wife of his choice. A single

attempt at bride-viewing ends in disaster. He gets a wife out of sympathy and his occasional bribing his would-be father-in-law with alcohol. He notes, "The girl I married needed to be a hybrid like me to ensure a proper match. A bastard must always be matched with another bastard. No one else will marry their daughters to a bastard like me" (98). The text becomes the eye witness account of the horrors of the lives of a particular subaltern community.

Limbale in his personal history narrates events after events discrimination by the upper caste officials. He recollects how embarrassing circumstances were intentionally made in government workplaces to make it troublesome for lower caste employees to work with sense of pride. Dalit employees buckled down with genuineness and devotion to their duties. Limbale realizes that they were the first to be fired and last to be hired by the high caste officials. For all these he accuses the caste system and condemns it in the severest terms.

Limbale's cry for social equity in his collection of memoirs has no match in any writing and his voice is certainly loud; it has its own justification. As an immediate victim of such a heinous practice his indignation is violent to the point that it cannot be contained in words. The following is an outburst where he puts a volley of inquiries related with his stigmatized birth:

Why did mother say yes to the rape which brought me into the world? Why did she put up with the fruit of this illegitimate intercourse for nine months and nine days and allow me to grow

in the foetus? Why did she allow this bitter embryo to grow? How many eyes must have humiliated her because they considered her a whore? Did anyone distribute sweets to celebrate my birth? Did anyone admire me affectionately? Did anyone celebrate my naming ceremony? Which family would claim me as its descendant? Whose son am I, really? (37)

Limbale's inquiries clearly go unanswered. Nevertheless, by bringing up those issues he is raising an extremely essential issue for open discourse to what extent would we be able to continue shielding the caste system and its different ugly manifestations? Despite the fact that Limbale is by all accounts irate, he is truly thoughtful to the victims of such social oppression.

Even though education goes to each door but Dalit authors like Sharankumar Limbale, Laxman Mane, Siddhlingaih and Omprakash Valmiki have seen to ask for education. Siddhlingaih and Omprakash Valmiki too languished a great deal over getting confirmation, yet at the same time they couldn't permitted to sit on chair or bench. There was no reasonable treatment and security for a Dalit in the government and non-government schools. In schools, employment institutions, public places, travel, and politics, Dalits were discriminated on such occasion, Sharankumar Limbale realized that education was the only way to overcome all the sufferings and so, he went to school regularly and studied hard.

The insurmountable challenge faced by Limbale and other Dalit young children

is hunger. The author has harped on this essential need of man on and on all through the book, philosophizing on the clear need of nourishment:

God endowed man with a stomach.  
. . . Since then man has been striving to satisfy his stomach. Filling even one stomach proved difficult for him. He began to live with a half-filled one. He survived by swallowing his own saliva. He went for days without eating anything. He started selling himself for his stomach. A woman becomes a whore and a man a thief. The stomach makes you clean shit; it even makes you eat shit( 8).

The text replete with episodes of hunger which is projected before a class of readers who are willfully ignorant of such undercurrents. He portrays how a whole community absolutely relies on the scrap nourishment of the upper castes in return for their hard and humiliating work. The traditional occupation of the Mahars were cleaning towns, taking ceaselessly dead creatures from the upper caste area, and so forth. For their work they never got legitimate wages. They needed to depend altogether on the benevolence of the upper caste who instead of giving them what were their dues, abused them to the most extreme. In this way, they essentially lived in the edge of the caste society getting nothing. Their circumstance today may not be precisely the same but rather they have not profited especially in a free India.

Limbale does not succumb to the pitiable existence but rather obtains liberation

and freedom from his purgatory of caste through education. The knowledge he had obtained from books, had taught him to think differently. He comprehended that the sufferings of their lives depended on the false concept of superiority. He has imbibed a "Dalit Consciousness", a cognizance of their own bondage" (Tadal, 71), a comprehension of their encounters of prohibition, enslavement, dispossession and mistreatment down the ages. It is this information that frees him. Limbale notes in his critical work, *Towards an Aesthetic of Dalit Literature*, "The conditions that I have written about, the environment that I have written about, no longer exist in my house, because of the position that I happened to hold today" (156). He further explains:

Now, after twenty-five years, my past has been so destroyed that I have been cut off from it, I've been completely separated from it. Neither have I gone home, nor does my mother see me as I was before. 'Some big officer has come, some VIP guest has come': thus will she offer me water. I no longer have the same attachment to my colony, my relatives, my language. Everything has changed. And because of that change, I am done writing about the history that I had to write about. (155)

The past does not draw him with its marvels of sentimentality as there is not something to be nostalgic about. His perseverance and diligent work at last bring him reward. He has the distinction of being the first graduate from his community and also the first person to get a government job.

With no disgrace he writes in the personal history that till he got the government job his family members lived on the scrap food given by the upper castes. By getting a government job Limbale's family might have escaped the traditional scavenging duties, but Limbale as a conscious member of his community is not at all happy about his individual freedom till he landed the administration position his relatives lived on the scrap sustenance given by the upper ranks. He is tormented to see his kindred community members doing the same traditional duties without any protest. Limbale by composing his collection of memoirs thus renders an extraordinary support to his community. Along with his biography he also portrays the excruciating stories of his community life. It is in this sense that Limbale's biography is also the story of his community.

The most ideal approach to discover the sufferings of the Dalits and the other marginalized sections is through the words and feelings of the individuals who have survived the experience and who have the education and talent to compose so vividly about it. Limbale has unveiled a bizarre world of poverty, untouchability and the pathetic human condition prevailing all over the world in his auto narrative. His ability to express his outrage and disappointment with a distinctive and stark vision makes him powerful voice of the voiceless. The text provides a new insight regarding the deplorable predicament of Dalits. In addition to this, the reading of this text in a different angle is an eye opener to the manifold anguish of the entire Dalit community. Unrelieved enduring is the truth of the Dalit experience and Dalit auto account



is a weapon for the Dalit writers against untouchability. Dalit writers expound on their sentiments and experiences unless and until it will get vanished from the Indian attitude. The voyage of Dalits is from quest for identity to social equality is still going on and its positive signs and effects are clearly visible throughout India. Limbale's social dissents and the resulting recovery serve as motivation for other members in the Dalit community.

### References

- Ahmad, Zafar. *Caste System in Modern India*. New Delhi: Authors Press, 2010. Print
- Anand, Mulkraj. *The Untouchable*. New Delhi: Arnold Publishers, 1970. Print
- Bhagawat, Vidyut. "Some Critical Reflections". *Dalit Women in India; Issues and Perspectives*. Ed. P.G Jogdond. New Delhi: Gyan Publishing House, 1995.1-7. Print
- Das, Harihara. and B. C Chaudhary, *Introduction to Political Sociology*. New Delhi: Vikas Publishing House, 1997. 259-266. Print
- Limbale, Sharankumar. *The Outcaste: Akkarmashi*. Trans. Santhosh Bhoomkar. New Delhi: OUP, 2003. Print
- \_\_\_\_\_. *Towards an Aesthetic of Dalit Literature: History, Controversies and Considerations*. Trans. Alok Mukherjee. Mumbai: Orient Longman, 2004. Print
- Panikkar, K.M. *Hindu Society at Cross Roads*. New Delhi: Navajyothi Publishers, 1961.10-25. Print
- Shaw, Ghanshyam (ed). *Dalit Identity and Politics*. New Delhi: Sare, 2001. Print





## AWARENESS OF ADOLESCENT GIRLS ON LEGAL PROVISIONS FOR SAFETY OF WOMEN

Dr. T.C. Thankachan\*

### Abstract

*Women constitute half of the total population in India. Women being a major part of a huge population clearly reflect the need of their proper education. Education helps men and women claim their rights and realize their potential in economic, political and social arenas. Awareness on Legal Provisions for Safety of Women provides with the ability to make social and family changes and to increase their control of their own lives and decision that affect them. This makes girls to understand the significance of equality, liberty, fraternity and also exploitation if any. This study was conducted on a representative sample of 360 Adolescent Girls from aided, unaided and Government Schools belong to both Urban and Rural area in Kottayam district. The Inventory on the Awareness on Legal Provisions for Safety of Women prepared by the investigator was used for data collection. The results shows that majority of the adolescent girls have moderate awareness on Legal Provisions for Safety of Women and students of Unaided Schools are having high awareness than the Students of Aided and Government School Students.*

**Key words:** Legal Provisions, Safety of women, Women empowerment, Indian Penal Code, Nirbhaya, Indian initiatives, etc.

### Introduction

Education is a never ending process of inner growth and development. It is holistic in character; it is just like an artist who moulds the raw materials of child into a better, pure and noble person. It makes our life progressive, cultured and civilized. In fact, education is a desired modification of human behavior. Education is the most potent mechanism for the advancement

of human beings. It enlarges, enriches and improves the individual's image of the future. Education emancipates the human beings and leads to liberation from ignorance.

Women constitute half of the total population in India. Women being a major part of a huge population clearly reflect the need of their proper education. Still women are continuously denied equal opportunities in our society. Women education in India needs

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\* Assistant Professor in Education, St. Thomas College of Teacher Education, Pala, Kerala

enlistment. In recent years, government has realized the importance of women education and has taken some steps in this direction but a lot of works has to be done to make each and every women of India educated and eventually independent. Women's education in India has also been a major concern of both the government and civil society as educated women can play a very important role in the development of the country.

Education helps men and women claim their rights and realize their potential in economic, political and social arenas. Condition of women in India has not been historically very good. As is evident from manuscript, women did not have many rights as compared to men. Further, the women are physically weaker than men and due to this fact also, they have been exploited. Due to such continuous unfavorable treatment, the social status of women has become really bad. There is no doubt that we are in the midst of a great revolution in the history of women.

Women in our society are mostly unaware of their rights because of illiteracy and the oppressive tradition. Many evils are still practiced on women such as bigamy, child marriages are still in practices, dowry demands are still on rise, and women are still harassed for dowry. Malnutrition and illiteracy are growing at an alarming rate, rape and molestation have become daily phenomenon, and moreover, still we see women as commodity.

### **Legal Provisions for Safety of Women**

India is a country which is always known to empower women to the maximum extent. Even our seas and oceans have been named after women. We come from a country

which respects mom more than god himself. But the present day scenario where rapes and murders and abductions are on an increase tells us a different story. True there are lots of laws protecting the rights of women but they are not as effective as of now just because of the simple fact that there is no such awareness amongst people and the law is not intimidating enough to scare the wrong doers. Women are the wealth of the nation and it becomes our sacred duty to protect them against all harm. There are number of initiatives for the safety of women in India, some of them are;

#### **a) NIRBHAYA Project (2013)**

It is an initiative of the Kerala state government, to guarantee security for women and children. Through the innovative scheme, the government aims to rectify atrocities against women and children and make the state women friendly where women can safely travel even at midnight. NIRBHAYA (fearless) mainly focuses on a three-point agenda - prevention, prosecution and protection. In prevention, major areas of intervention lie in sensitizing society, empowering vulnerable groups, targeting contributing factors such as alcoholism, gender discrimination and consumerism. The scheme also aims at providing proper rehabilitation facilities to help the victim to heal, recover, empower and reintegrate back into society. Prosecution is another area of intervention where strong laws have to be formulated to ensure rigorous punishment for the culprits which will be a deterrent for such criminals. The policy focuses on child abuse, commercial sexual exploitation and sex trafficking, which constitute the worst forms of sexual violence in the state.

**b) She Taxi Service (2013)**

An all women taxi service launched by the Government of Kerala to ensure safe travel for women at all hours. Owned and run by women the taxis will provide safe travel options at a time when violence against women is on the rise. Single women travelling late at night no longer have to worry as these taxis are available at all hours and if any problem crops up the driver can press a panic button and seek police help. Taking a ride in the security enabled 'She Taxi' along with a confident woman driver gives one the trust to board one of these even late at night.

**c) Indian Penal Code and Special Laws**

To uphold the constitutional mandate, the state has enacted various legislative measures intended to ensure equal rights, to counter social discrimination and various forms of violence and atrocities and to provide support services especially for working women. Although women may be victim of any of the crime such as 'murder', 'robbery', 'cheating' etc, the crimes, which are directed specifically against women, are characterized as 'crime against women'. These are broadly classified under two categories.

**d) The crimes identified under the special Laws (SLL)**

Although all laws are not gender specific, the provisions of law affecting women significantly have been reviewed periodically and amendments carried out to keep pace with the emerging requirements. Some acts which have special provisions to safeguard women and their interests are:

- The Employees State Insurance Act, 1948
- The Plantation Labour Act, 1951
- The Family Courts Act, 1954
- The Special Marriage Act, 1954
- The Hindu Marriage Act, 1955
- The Hindu Succession Act, 1956 with amendment in 2005
- Immoral Traffic (Prevention) Act, 1956
- The Maternity Benefit Act, 1961 (Amended in 1995)
- Dowry Prohibition Act, 1961
- The Medical Termination of Pregnancy Act, 1971
- The Contract Labour (Regulation and Abolition) Act, 1976
- The Equal Remuneration Act, 1976
- The Prohibition of Child Marriage Act, 2006
- The Criminal Law (Amendment) Act, 1983
- The Factories (Amendment) Act, 1986
- Indecent Representation of Women (Prohibition) Act, 1986
- Commission of Sati (Prevention) Act, 1987
- The Protection of Women from Domestic Violence Act, 2005

**e) The crimes identified under the Indian Penal Code (IPC)**

They are; Rape (Sec. 376 IPC), Kidnapping & Abduction for different purposes (Sec. 363-373 IPC), Homicide for dowry, dowry death or their attempts (Sec. 302/304- B IPC), Torture, both mental and physical (Sec. 498-A IPC), Molestation

(Sec. 354 IPC), Sexual harassment (Sec. 509 IPC), Importation of girls (up to 21 years of age), etc.

#### **f) Rights and Privileges**

The Constitution of India not only grants equality to women but also empowers the State to adopt measures of positive discrimination in favour of women for neutralizing the cumulative socio economic, education and political disadvantages faced by them. Fundamental Rights, among others, ensure equality before the law and equal protection of law; prohibits discrimination against any citizen on grounds of religion, race, caste, sex or place of birth, and guarantee equality of opportunity to all citizens in matters relating to employment. Articles 14, 15, 15(3), 16, 39(a), 39(b), 39(c) and 42 of the Constitution are of specific importance in this regard.

#### **g) Special Initiatives for Women**

##### **(i) National Commission for Women (NCW)**

In January 1992, the Government of India set-up this statutory body with a specific mandate to study and monitor all matters relating to the constitutional and legal safeguards provided for women, review the existing legislation to suggest amendments wherever necessary, etc. The objective of the NCW is to represent the rights of women in India and to provide a voice for their issues and concerns. The subjects of their campaigns have included dowry, politics, religion, equal representation for women in jobs, and the exploitation of women for labour. They have also discussed police abuses against women.

##### **(ii) Reservation for Women in Local Self-Government**

The 73rd Constitutional Amendment Acts passed in 1992 by Parliament ensure one-third of the total seats for women in all elected offices in local bodies whether in rural areas or urban areas. The Amendment Act of 1992 contains provision for devolution of powers and responsibilities to the panchayats, both for the preparation of economic development plans and social justice, as well as for implementation in relation to 29 subjects listed in the eleventh schedule of the constitution. Not less than one-third of the total number of seats reserved for women. One-third of the seats reserved for SCs and STs also reserved for women. One-third offices of chairpersons at all levels reserved for women.

##### **(iii) The National Plan of Action for the Girl Child (1991-2000)**

The plan of Action is to ensure survival, protection and development of the girl child with the ultimate objective of building up a better future for the girl child. The policy will be widely disseminated so as to encourage active participation of all stakeholders for achieving its goals. The National Plan of Action of the Girl Child (1991-2000) is an integrated multi-sectoral decadal Plan of Action, for ensuring survival, protection and development of children with a special gender sensitivity built for girl children and adolescent girls. The increasing evidence of female foeticide and female infanticide, has lead the Government of India to adopt this National Plan which also had been the force behind the enactment of the legislation to ban sex determination to prevent female foeticide.

**(iv) *National Policy for the Empowerment of Women, 2001***

The goal of this policy is to bring about the advancement, development and empowerment of women. Ministry of Human Resource Development, Department of Women & Child Development, Govt. of India has circulated the National Policy for the Empowerment of Women 2001 for implementation. The policy will be widely disseminated so as to encourage active participation of all stakeholders for achieving its goals.

**Need and Significance of the study**

This study gives an immense help to the educational experts in framing curriculum by giving equal importance to both sexes. The text book can prepare, projecting a positive image of women. New values can be incorporated by way of identifying areas of sex bias in the textual material and giving suggestions to the teacher's discussion, debates through exercises, questions, discussions, debates etc. This study may help the policy makers to improve women's opportunities outside the home and increase their bargaining power within households by training teachers, revising school curriculum and by educating parents to prevent continuing gender stereo types, boosting female enrolment rates and thus filling the gender gap.

Awareness on Legal Provisions for Safety of Women provides with the ability to make social and family changes and to increase their control of their own lives and decision that affect them. Awareness on Legal Provisions makes the girls to understand the significance of equality, liberty, fraternity and

also exploitation if any. Every day, people are undated with decisions, big and small. Understanding how people arrive at their choices is an area of cognitive psychology that has received attention. People make decisions about many things. They may take personal decisions, career decisions etc. Quite often, the decision making process is fairly specific to the decision being made. Some choices are simple and seen straight forward, while others are complex and require a multistep approach to make the decision.

A teacher makes literally hundreds of professional decisions every day. Some decisions affect classroom management, others affect instructional management. Some types of decisions occur in frequently; others occur several times each day. When trying to make good decision a person must wait for the positives and negatives of each option, and consider all the alternatives. We can conclude that if the girls get more awareness about their provisions, they will become more powerful and they can take appropriate decisions in their life. So awareness is very important in every female student.

The present paper is entitled as a study on "Awareness of Adolescent Girls on Legal Provisions for Safety of Women".

**Objectives of the Study**

- i. To study the awareness on Legal Provisions for Safety of Women among the adolescent girls of Kottayam District.
- ii. To study the awareness on Legal Provisions for Safety of Women among the adolescent girls of Kottayam District with respect to; Locality, Level

of education (Secondary & Higher Secondary) and Type of management

### **Hypotheses of the study**

- i. There exists a significant difference between the means of scores Awareness on Legal Provisions for Safety of Women among the adolescent girls of urban and rural areas of Kottayam District.
- ii. There exists a significant difference between the means of scores Awareness on Legal Provisions for Safety of Women among the adolescent girls of Secondary and higher secondary schools of Kottayam District.
- iii. There exists a significant difference between the means of scores Awareness on Legal Provisions for Safety of Women among the adolescent girls of Aided, Government and Unaided schools of Kottayam District.

### **Methodology in Brief**

The investigator selected the Descriptive Survey Method and carried out in three phases. The first phase includes the selection of variables and preparation of the tool used in the study. In the second phase, includes selection of sample involved in the study and collection of data. In third phase, includes analysis of data using suitable statistical procedures to draw conclusion.

The study was designed with the following variable; Legal Provisions for Safety of Women, which includes the constitutional provisions for women's safety, Indian Penal Code (IPC). The Sub variables of Legal Provisions for Safety of

Women are; NIRBHAYA Project, She Taxi Project, Constitutional Provisions, Indian Penal Code (IPC), National Commission For Women, State Commission For Women, etc.

In the present study the sample taken had been stratified with regard to locale, level of education and type of management. The investigator conducted the present study on a representative sample of 360 Adolescent Girls from aided, unaided and Government Schools belong to both Urban and Rural area. For the present study, the Inventory on the Awareness on Legal Provisions for Safety of Women prepared by the investigator was used for data collection. The statistical techniques used in this study are both descriptive and inferential statistics.

### **Analysis and Interpretation of the Data**

#### ***1. Awareness on the Legal Provisions for safety of women***

The investigator classified the whole sample in the classes by using the scores obtained on the tool titled "Inventory on Awareness on Legal Provisions for Safety of Women among adolescent girls" for the Adolescent girls of Standard Nine Standard Eleven. The investigator classified the whole sample into three categories; High Awareness ( $>M+1\sigma$ ), Moderate Awareness (between  $m+1\sigma$  and  $M-1\sigma$ ) and Low Awareness ( $< M-1\sigma$ ). Here  $M$  is the Mean and ' $\sigma$ ' is the Standard Deviation. The classification of the sample on the basis of scores on the Legal Provisions for safety of women is given in table 1.



Table 1

*Classification of the Adolescent girls on the basis of their scores on the Awareness on Legal Provisions for Safety of Women*

| Level    | Range                   | Number of Adolescent girls | Percentage |
|----------|-------------------------|----------------------------|------------|
| High     | >79.09                  | 50                         | 13.88      |
| Moderate | Between 63.03 and 79.09 | 250                        | 69.44      |
| Low      | < 63.03                 | 60                         | 16.67      |
| Total    |                         | 360                        | 100        |

From table 1, the investigator observes that 50 Adolescent girls scored above 79.09. They constitute 13.88% of the total sample. They have high Awareness on Legal Provisions for Safety of Women. There are 60 Adolescent girls scored below 63.03 constituting 16.67 % of the total sample. They have low Awareness on Legal Provisions for Safety of Women. There are 250 Adolescent girls lie between 63.03 and 79.09 constituting 69.44% of the total sample. They have moderate Awareness on Legal Provisions for Safety of Women.

From the analysis of the first objective, the investigator concludes that the majority of the Adolescent girls (69.44%) have moderate Awareness on Legal Provisions for Safety of Women.

## **2. Awareness on Legal Provisions for safety of women among the Adolescent girls with regard to Locale, Level of education and Type of Management**

The second objective of the study is “to study the significant difference between the Means of Scores on the Awareness on Legal Provisions for Safety of Women among Adolescent girls of Kottayam District with respect to; (a) Locality, (b) Level of education (Secondary & Higher Secondary) and (c) Type of management.

The Descriptive Statistics employed for the scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls according to Locale, Level of Education and Type of Management is presented in table 2.

Table 2

*Variable, Category, Number of students, Mean, and Standard Deviation of the scores on Awareness on Legal Provisions for Safety of Women among the Adolescent Girls*

| Variable                             | Category           |                  | N   | Mean  | S.D  |
|--------------------------------------|--------------------|------------------|-----|-------|------|
| Legal provisions for safety of women | Locale             | Urban            | 201 | 71.08 | 8.07 |
|                                      |                    | Rural            | 159 | 71.03 | 8.01 |
|                                      | Level of education | Secondary        | 198 | 71.33 | 7.50 |
|                                      |                    | Higher secondary | 162 | 70.52 | 8.66 |
|                                      | Type of education  | Aided            | 119 | 70.12 | 7.06 |
|                                      |                    | Government       | 196 | 70.83 | 8.89 |
|                                      |                    | Unaided          | 45  | 74.55 | 4.62 |



From table 2, investigator observes that the Means of Scores on Legal Provisions for safety of women of the Urban Area students is 71.08 and Rural Area students is 71.03. The Means of Scores on Legal Provisions for safety of women of the secondary school students is 71.33 and higher secondary school students are 70.52. The Means of Scores on Legal Provisions for safety of women of the Government school students is 70.83, Aided school students is 70.12 Unaided school students is 74.55.

### **3. Awareness on Legal Provisions for safety for women with respect to Locality**

The objective of the study is “to study the significant difference if any, between

the Means of the Scores on the Awareness on Legal Provisions for Safety of Women among the Adolescent girls from urban and rural area”. For the analysis of the data the investigator has formulated the null hypothesis (H<sub>0</sub>) as,

H<sub>0</sub>: “There exists no significant difference between the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls from urban and rural area”.

In order to analyse the null hypothesis the investigator used two tailed t- test for large independent sample. The t value set as 1.96 at .05 level of significance with degrees of freedom 358 (N=360). The data and results are presented in table 3.

Table 3

*Number, Mean, Standard Deviation, and t value of the Scores on Legal Provisions for safety of women among the Adolescent girls from urban and rural area*

| Variable                             | Category | N   | Mean  | SD   | df  | t value | p value | Remarks                      |
|--------------------------------------|----------|-----|-------|------|-----|---------|---------|------------------------------|
| Legal provisions for safety of women | Urban    | 201 | 71.08 | 8.07 | 358 | 0.052   | 0.959   | Not Significant at .05 level |
|                                      | Rural    | 159 | 71.03 | 8.01 |     |         |         |                              |

From table 3, the investigator observes that the obtained t value 0.052 is less than the tabled value 1.96 at .05 level of significance with degrees of freedom 358. Also the obtained P value 0.959 is greater than the tabled value 0.05 at .05 level of significance with degree of freedom 358. It shows that the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls from urban and rural area not differ significantly. Thus the null hypothesis H<sub>0</sub>: “There exists no significant difference between the Means of Scores on

Awareness on Legal Provisions for Safety of Women among the Adolescent girls from urban and rural area” is accepted.

The investigator concludes that Locale has no significant influence on Awareness on Legal Provisions for Safety of Women among the adolescent girls.

### **4. Awareness on Legal Provisions for safety of women with respect to Level of education**

The objective of the study is “to study the significant difference if any, between the

Means of the Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls from Secondary and Higher Secondary Schools”. For the analysis of the data the investigator has formulated the null hypothesis (H<sub>0</sub>) as,

Ho: “There exists no significant difference between the Means of Scores on Awareness on Legal Provisions for Safety

of Women among the Adolescent girls from Secondary and Higher Secondary Schools”.

In order to analyze the null hypothesis the investigator used two tailed t test for large independent sample. The t value set as 1.96 and P value as 0.05 at .05 level of significance with degrees of freedom 358 (N=360). The data and results are presented in table 4.

Table 4

*Number, Mean, Standard Deviation, and t value of the Scores on awareness on Legal Provisions for safety of women among the Adolescent girls from Secondary and Higher Secondary Schools*

| Variable                             | Category  | N   | Mean  | SD   | df  | t value | p value | Remarks      |
|--------------------------------------|-----------|-----|-------|------|-----|---------|---------|--------------|
| Legal provisions for safety of women | Secondary | 198 | 71.33 | 7.50 | 358 | 0.719   | 0.472   | Not          |
|                                      | Higher    |     |       |      |     |         |         | Significant  |
|                                      | Secondary | 162 | 70.52 | 8.66 |     |         |         | at .05 level |

From table 4, the investigator observes that the obtained t value 0.719 is less than the tabled value 1.96 at .05 level of significance with degrees of freedom 358. Also the obtained P value 0.472 is greater than the tabled value 0.05 at .05 level of significance with degrees of freedom 358.

The investigator interprets that obtained t value 0.719 is not significant at .05 level. It shows that the Means of Scores on Awareness on Legal Provisions for Safety of Women based on Level of education do not differ significantly. Thus the null hypothesis Ho: “There exists no significant difference between the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls from Secondary and Higher Secondary Schools” is accepted.

The investigator concludes that Level of education has no significant influence on Awareness on Legal Provisions for Safety of

Women among the adolescent girls.

### ***5. Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management***

The investigator sets the objective of the study as “to study the significant difference if any, between the Means of the Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management”. For the analysis of the data the investigator has formulated the null hypothesis (H<sub>0</sub>) as,

Ho: “There exists no significant difference between the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management”. The investigator analyses the null hypothesis using One Way Analysis of Variance (One Way ANOVA). The value of ‘F’ was set as

3.02 at .05 level of significance with degrees of freedom between groups as 2 and within

group as 357. The data and results are presented in table 5.

Table 5

*Scores on the Awareness on Legal Provisions for Safety of Women among the Adolescent girls from government, aided and unaided schools*

| Variable                             | Type of Management | N   | Mean  | SD   |
|--------------------------------------|--------------------|-----|-------|------|
| Legal provisions for safety of women | Government         | 119 | 70.12 | 7.06 |
|                                      | Aided              | 196 | 70.83 | 8.89 |
|                                      | Unaided            | 45  | 74.55 | 4.62 |

From table 5, it is clear that the Means of Scores on Legal Provisions for safety of women of the Government school students is 70.12, the Means of Scores on Legal Provisions for safety of women of the Aided school students is 70.83 and the Means of Scores on Legal Provisions for safety of women of the Unaided school students is 74.55. The table 5.10 also reveals that the students

of Unaided school have more Awareness on Legal Provisions for Safety of Women than that of others.

The investigator presents the Number, Category, Sum of Squares, Mean Square and F value of the Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management in table 6.

Table 6

*The variable, Category, Sum of Squares, Mean Square and F value of the Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management*

| Variable                             | Category      | Sum of Squares | df  | Mean Square | F value | Remarks                  |
|--------------------------------------|---------------|----------------|-----|-------------|---------|--------------------------|
| Legal provisions for safety of women | Between Group | 664.0999       | 2   | 332.050     | 5.26    | Significant at .05 level |
|                                      | Within Group  | 22535.745      | 357 | 63.125      |         |                          |
|                                      | Total         | 23199          | 359 |             |         |                          |

From table 6, the investigator observes that the obtained 'F' value 5.26 is greater than the tabled value 3.02 at .05 level of significance with degrees of freedom 357. So the obtained 'F' value 5.26 was significant at .05 level.

The investigator interprets that the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management differ significantly. Thus the null hypothesis  $H_0$ : "There exists no

significant difference between the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Type of Management” is accepted.

### **Discussion of the Results**

From the study of distribution of the scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls it is revealed that 14 % of the Adolescent girls have high awareness on the Legal Provisions for safety of women, 17% of the total sample has low awareness on the Legal Provisions for safety of women and 69% of the total sample has moderate awareness on the Legal Provisions for safety of women. This result is supported by the findings of Paul (2008) who conducted a study on “awareness on legal rights among women teachers”. He found that majority of the sample has moderate awareness on legal rights.

There exists no significant difference between the Means of Scores on Awareness on Legal Provisions for Safety of Women among the Adolescent girls with regard to Locale and Level of education. This result is supported by the findings of Vijayalakshmi (2012) who conducted a study on “Human rights awareness among teacher educators”. She found that there is no significant difference in Human Rights awareness of teacher educators with regard to locale.

There exists a significant difference in the Means of Scores on Legal Provisions for safety of women among the Adolescent girls with regard to Type of Management. The students of Unaided Schools are having High awareness Legal Provisions for Safety of Women than the Students of

Aided and Government School Students. The investigator did not find any relevant literature to substantiate this result.

There exists no significant difference between the Means of Scores on the Decision Making Capacity among the Adolescent girls with regard to Locale, Level of education and Type of Management. This result is contradicted with the findings of Karen & Rowland (2006). They found that type of school and grade levels are the significant factors to ones decision making skill.

### **Major finding of the study**

- Majority of the adolescent girls (69.44%) have moderate awareness on Legal Provisions for Safety of Women.
- Locale has no significant influence on awareness on Legal Provisions for Safety of Women among the adolescent girls.
- Level of education has no significant influence on awareness on Legal Provisions for Safety of Women among the adolescent girls.
- Type of Management has significant influence on awareness on Legal Provisions for Safety of Women among the adolescent girls. The students of Unaided Schools are having High awareness Legal Provisions for Safety of Women than the Students of Aided and Government School Students.

### **Conclusion**

The awareness on Legal Provisions for Safety of Women is revealed in this study. Majority of the adolescent girls have moderate awareness on legal provisions for safety of women. So the government should conduct awareness classes in

schools. Majority of the adolescent girls have moderate Decision Making Capacity so proper care should be given for the development of good Decision Making Capacity. The study point out the need of psychologists and councilors in educational institutions for giving children proper training for awareness on Legal Provisions for Safety of Women. The teachers should be good role models for spreading out the awareness on Legal Provisions for Safety of Women and girl children.

## References

- Ahmad (2013). Women Security and Legal Safeguards in India. *Journal of business management and social science research*. 2(4). [http://borjournals.com/Research\\_papers/Ap\\_2013/1184M.pdf](http://borjournals.com/Research_papers/Ap_2013/1184M.pdf)
- Anju Rani, T.C. (2010). *A Study on the awareness of women rights among secondary school students of Kottayam District in relation with selected socio familial variables*. Unpublished M.Ed Dissertation, Mahatma Gandhi University, Kottayam.
- Aruna, P.K., & Saleem Abdul (2011). Human right awareness among teacher educators. *Edutracks*, 10(10), 39-42.
- Devanesan, P. Paul., & Selvan, A. (2014). Women's safety rights in the prevailing social conditions. *Indian Journal of Psychometry and Education*, 45(2), 125-27.
- Forbes Geraldine (2000). *Women in Modern India*. New Delhi: Cambridge University Press.
- Legal provisions for women. Retrieved from <http://nlrd.org/womens-rights-initiative/legislations-laws-related-to-women/constitutional-and-legal-provisions-for-women-in-india>
- Mathew, P.M (2001). *Training and empowerment of rural women in Kerala*. Unpublished M.S.W Dissertation, Mahatma Gandhi University, Kottayam.
- Meena, O.P. (2012). *Empowering Rural Women*. New Delhi: Crescent Publishing Corporation.
- Mohanthy (2009). Legal Provisions on Domestic Violence on Women. Retrieved from <http://orissa.gov.in/emagazine/Orissareview/2009/July/engpdf/46-49.pdf>
- Nanda, B.R (1990). *Indian Women from Purdah to Modernity*. New Delhi: Radiant Publications.
- Patel. V. Jayantibhai (2008). Constitutional Awareness among M.Ed Teacher Trainees. *Edutracks*, 7(10), 34-37.
- Paul. P. Adam (2008). Awareness on Legal Rights among Women Teachers. *Edutracks*, 7(9), 38-40.
- Rajan, M (2003). *Influence of education for the empowerment of women- A study based on self help group strategy in Idukki District*. Unpublished M.Ed Dissertation, Mahatma Gandhi University, Kottayam.
- Rasheed Deepa (2009). *A study on socio legal support system in protecting the women victims of domestic violence*. Unpublished M.S.W Dissertation, Mahatma Gandhi University, Kottayam.
- Remyamol, V.R (2011). *A Study on emotional maturity and decision making styles among the B.Ed students of Kottayam District*. Unpublished M.Ed Dissertation, Mahatma Gandhi University, Kottayam.
- Sahoo Kumar., & Raju (2007). Working women and their experience in domestic violence. *Social Change*, 37(4), 131-52.
- Sharma Premlata (1988). *Rural Women in Education*. New Delhi: Sterling Publishers Pvt. Ltd.
- Stephen Soumya (2013). *Legal awareness and social adjustment among the undergraduate students*. Unpublished M.Ed Dissertation, Mahatma Gandhi University, Kottayam.
- WHO (2014). Adolescent. Retrieved from <http://www.who.int/maternal-child-adolescent>



## COMMERCIALISATION OF AGRO-TOURISM IN IDUKKI DISTRICT: CHALLENGES AND OPPORTUNITIES

Anoop Joseph\*  
Josmy Varghese\*\*

### ABSTRACT

*Agro-tourism is, in fact, a blending of two different extremes, viz, agriculture and tourism. Now-a-days none of them can sustain alone for a long term. In order to increase the contribution of agriculture sector to the national economy, the existing agricultural activities must be strengthened with the provision of additional income generating activities like agro-tourism. For commercializing the tourism potential, various aspects such as development of agro-tourism, challenges, opportunities, etc. have to be considered. The study is an attempt to suggest some approaches to commercialize the agro-tourism in the light of contemporary challenges faced.*

**Keywords:** *Agro-Tourism, Challenges, Opportunities , etc.*

### 1.1 Introduction to Agro-Tourism

As we all know, one of the prominent sectors the Indian economy is the agriculture sector. Even though the contribution from this sector is negligible as compared to other sectors, its relevance is in the upstate. This is because majority of Indians are depending on agriculture for earning their livelihood. A comparison of various sectors with agriculture sector is not even recommendable or reasonable as it is an activity thickly diluted with culture.

In order to increase the contribution of agriculture sector, the existing agricultural activities must be strengthened with the provision of additional income generating activities. Tourism can be of a boon in this regard. The clubbing of tourism with agriculture would serve the aim of increasing the contribution from agriculture sector to the gross domestic product and thereby facilitating the economic development.

Tourism is recognized as a boosting factor of growth in the various economies

\* Assistant Professor, PG Department of Commerce, Pavanatma College, Murickassery  
E-Mail: [anoopj.pcm@gmail.com](mailto:anoopj.pcm@gmail.com)

\*\* Assistant Professor, PG Department of Commerce, Pavanatma College, Murickassery  
E-Mail: [josmyve@gmail.com](mailto:josmyve@gmail.com)



in the world. Several countries have transformed their economies by developing their tourism potential. Promotion of tourism would bring many direct and indirect benefits to the people. Tourism has great capacity to generate large-scale employment and additional income sources to the skilled and unskilled group of general people. Today the perception of old-fashioned tourism has been changed. Some new zones of the tourism have been emerged like Agro-Tourism.

Agro-tourism is one of the forms of tourism which capitalizes the rural culture as a tourist attraction. It is nothing but tourism through agriculture or is the commercialization of agriculture through tourism. It is similar to ecotourism except that its primary appeal is not the natural landscape but a cultural landscape. Agro-tourism is an innovative agricultural activity related to tourism and agriculture both. It has a great capacity to create additional source of income and employment opportunities to the farmers. Agro-tourism can promote regional development. It also helps to conserve diversity, and the rural population itself must have recognized agro-biodiversity as valuable and worthy of protection.

There are a range of other forms of rural tourism which are not necessarily a part of agro-tourism in the strict sense, e.g. ethno-tourism, project tourism, health tourism, historical tourism, cultural tourism or adventure tourism. The term 'agro-ecotourism' is generally synonymous with 'agro-tourism'.

Kerala is one of the major tourist centers in the India and there is large scope and great potential to develop

agro-tourism. Kerala in the perspective of tourism is often called as god's own country. Among the tourist places in Kerala, the Idukki district gets attraction due to its greenery and geographical merits. In the background of these an attempt to study the challenges and opportunities of agro-tourism along with the commercialization of it is relevant.

## **1.2 Importance of the Study**

In the present scenario of liberalization and globalization, tourism industry is the key for economic growth and development. It is one of the main sources of foreign exchange income and helps in creating employment opportunities.

Agro-tourism is one of the forms of tourism which capitalizes the rural culture as a tourist attraction. It is nothing but tourism through agriculture or is the commercialization of agriculture through tourism. To know about the tourism potential, various factors such as development of agro-tourism, problems, prospects, commercialization ways, etc. have to be examined. Among these factors or dimensions, commercialization of agro-tourism is of paramount important and plays the chunk role in this study. The present study emphasizes the scrutiny of various dimensions in detail to measure the potential of the agro-tourism. In the present time, though the agro-tourism suffers from a lot of problems, it has handful of opportunities. This is possible by means of commercialization of different aspects relating to agro-tourism. The study therefore attempts to suggest some ways to commercialize the concept.

### **1.3 Objectives of the Study**

The specific objectives of the study are the following:

1. To give an outline of agro-tourism.
2. To identify the problems and prospects of agro-tourism.
3. To identify the innovative ways to commercialize agro-tourism.

### **1.4 Methodology**

The study is conducted in Idukki District. Both primary and secondary data are used for the study. Primary data required for the study are collected through interview schedule from the farmers engaged in agro-tourism promotion activities. In addition to this, personal interviews with the officials in the field of tourism are conducted wherever possible. Altogether 50 farmers in Idukki have been interviewed. Convenient sampling is used for the selection of interviewees. In certain places of the universe, due to some practical difficulty for collecting data, snowball sampling is resorted to. The secondary data for the study were collected from the published reports relating to tourism, journals, previous studies, government guidelines, tourism policies of government, website data, text books, etc. Percentage analysis, charts and diagrams, etc. are used for analysis and interpretation of the data collected from primary and secondary sources. Based on the inferences drawn, suggestions for the commercialization of agro-tourism have been placed.

### **1.5 Findings**

This session deals with the major findings of the study derived from the summarization and analysis of the collected data.

- Majority of the agro-tourism representatives are youngsters.
- Majority (50 per cent) respondents are graduate agro-farmers. Moreover, there is a mixture of other agro-farmers who are having postgraduate education, technical education and school education.
- Agro-tourism in Idukki is dominated by men holding 77 per cent majority. It may be taken as a challenge as well as opportunity for women to enter into this field as there is ample scope for them.
- Majority of Agro-tourism centers or farmers pursuing agro-tourism related activities earn comparatively favourable net annual revenue.
- Notable portions of the land were utilized for agro-tourism purposes by the farmers proportionate to their land holding.
- Income motive is the vital fact which leads farmers to become agro-tourism promoters followed by interest, opportunities and legacies.
- Respondents have adequate experiences in the field of agro-tourism i.e., it can be stated that there are experienced hands in the field of agro-tourism as far as the Idukki district is concerned.
- It seems that 98 per cent agro-tourism farmers have got their income increased after entering into the field of agro-tourism.
- Almost all the farms are interested in providing certain facilities to visitors or tourists. Farm fields selected for the study are providing a lot more than expected. It includes parking, ceremonies, kitchen experiences, fishing and cooking, etc.

for fees. It may be treated as a method of commercialization.

- Majority of the agro-tourism centers give access to visitors towards all their agro-fields for enjoyment and for other use. Only 1 per cent respondents are hesitated to give permission due to their own reasons.
- Almost all the farms are interested in permitting activities such as Land Preparation, Cultivation, Harvesting, Milking the Cow, Fishing, Cooking with Farm Fresh Crops, etc. to visitors or tourists. Farm fields selected for the study are permitting a lot more than expected. It includes camp fire, ceremonies, kitchen experiences, seasonal experiences, etc. for fees/free. It may be treated as another method of commercialization of tourism ends.
- Majority of the operators of agro-tourism are facing different kinds of practical difficulties relating to the concerned field.
- Financial constraints got placed first among the problems encountered in agro-tourism followed by a pool of various problems. It may be specially noted that other problems such as strikes, hartals, etc. which are facing severely by the people now-a-days with or without any good reason puts certain constraint for the holistic development of agro-tourism ventures or avenues.
- All agro-tourism centers or farmers pursuing agro-tourism initiatives are receiving one or more non-monetary benefits including peace of mind, opportunity to meet new people, mingling with new culture, easy

market for farm crops, mental pleasure, increased standard of living, helpful suggestions from tourists, etc.

- The best practice for the commercialization of agro-tourism is providing a common market for buying agro-products during the tenure of visit by tourists or visitors which is subsequently followed by healthy competitions among farm fields, assurance of a hazard free environment, etc. It may be further noted that all practices are relatively important for commercialization as evidenced by responses.

## 1.6 Suggestions

Agro-tourism is popularly considered as an innovative agricultural activity related to tourism and agriculture. It has an enormous capacity to create additional source of income and employment opportunities to different stakeholders. Agro-tourism can promote regional development and helps to conserve diversity. The present session of the study deals with the suggestions based on the findings.

### 1.6.1 Suggestions to Government

- Ensure proper safety of all stakeholders in all respect as far as possible. It usually involves physical and mental safeness. If the stakeholders are relieved from the usual safety concern the agro-tourism destinations will become more enjoyable.
- Adequate steps must be taken for the promotion of innovation in the field of agro-tourism. If innovative techniques or methods or programmes are available with agro-tourism fields, it surely attracts the visitors.

- Conduct celebrations relating to agriculture in tourism destinations or attractive places where the visitors and other stakeholders can reach. Celebrations will serve as a boosting factor for attracting the stakeholders.
  - The government has to ensure in tie-up with other possible stakeholders, sufficient transportation facility for the visitors. Sometimes, unclear routes cause a challenge for the improvement of tourism in general and agro-tourism in particular as far as the Idukki District is concerned.
  - An information system has to be maintained as a government initiative. It should comprise all the relevant and sufficient information regarding agro-tourism destinations, route(s), facilities, price, etc. Such a system not only helps the visitors but the headache of the government will get reduced also.
  - The government shall exercise their power to control the price of products and services offered in agro-tourism destinations in order to protect the interest of visitors who are considered as the success factor of every tourism ventures. It further puts a limiting factor of exploitation.
  - The education system of the state needs to be improvised by including agro-tourism studies en-route to study the agriculture. Curriculum regarding these has to be updated. For these, available expert groups may be resorted and utilized.
  - Farm visits by scholars or students along with their teachers must be encouraged in order to get exposure towards the agriculture and agro-tourism. Farm visits must be viewed in line with the industry visits conducted by reputed educational institutions.
  - Ensure maximum employment generation in tourism field especially in agro-tourism avenues. Vacancies must be filled in consultation with state staff selection authority. Then only the agriculture related jobs can be viewed by the common people as a white-collar job equivalent to government job.
  - Promote plastic free campaign in tourism destinations. It should be taken as a challenge by every form of government and its mechanisms. It may ultimately result in green tourism to a certain extent.
  - Proper measures must be taken to overcome calamities. These measures should include basic necessities, lifesaving equipment, first aid kits, conveyance, etc.
- 1.6.2 Suggestions to Agro-fields or Agro-tourism destinations**
- Visitors must be given a warm welcome at first. The principle of 'first impression' is applicable in the field of agro-tourism also.
  - Try to keep the fields, equipment and premises are in good condition. If they are in good condition, the customers or visitors will be satisfied and the reputation will get maximized.
  - Homely atmosphere should be provided to the visitors and preference should be given to their privacy.
  - Proper maintenance of equipment, etc. should be done periodically in order to ensure safety of them. This will

ultimately result in the improvement of goodwill.

- Encourage visitors and tourists to enjoy all the facilities available in the field or tourist centre. It should accompany proper guidance for the use of equipment, facilities, etc. It sometimes results better customer relations.
- Ensure sufficient security measures are available with tourism destinations. If the facilities are secured, the customers or visitors will be ready to at least try these. For e.g., life jackets, etc. in boating.
- It is advised to be in touch with insurance companies, where tourism related insurance products are available. Surely it gives a feel of relaxation for tourism centers. Such an insurance policy should cover fields, equipment, resources, facilities, lives, etc.
- Tourism organizers or centers must avoid hazardous equipment, processes, facilities, etc. for the better customer relations and tourists' health. E.g., use of poisons, pesticides, etc. At any cost organic farming and other related processes must be promoted and implemented. At the initial stage, sometimes it will cause losses, but eventually it will result in profits. A projected life cycle cost benefit analysis will be of great guidance.
- Emphasis plastic free tourism in agro-tourism centers. Now-a-days, organizations and governments are paying huge sums for the recycling of plastic wastes. With utmost good care from the beginning, agro-tourism organizers can keep their centers plastic free with the cooperation of visitors and other stakeholders.
- Agro-tourism centers have to explore opportunities knocking in their front door in the form of challenges. So they are advised to be vigilant in identifying them and turning them into as most profitable ventures.
- Make seasonal arrangements as necessary as possible for welcoming guests. Each season's arrangements may differ from others. So anticipate the arrangements and take sufficient measures to implement the decision regarding these including financial arrangements.
- It is suitable for agro-tourism centers to voluntarily comply with government policies in relation to tourism rather than resorting compliance by compulsion. This process will ultimately lead to the increase in reputation owned by agro-tourism centre.
- Identity verification of the visitors to agro-fields is the primary responsibility of tourism centers. Further, it is demanded by law in order to ensure the protection of the nation especially the economy.
- Convert the agro-tourism place from the status of mere scenery to a market for purchasing products and availing various services from there. It includes information services, knowledge about nearby tourist places, etc.
- Create employment opportunities necessary for the smooth functioning of agro-tourism centers. It is a must for the reputation of the tourism places.

- When employment vacancies are filled for the effective running of agro-tourism centers, preference may be given to local people in order to gain local support for the venture. Availability of helpers or workers or employees within a short notice or over a phone call will result in the optimization of reputation.
- The study area is not free from natural calamities which are uncontrollable in nature. Proper precautionary measures must be taken to overcome any kind of calamities for the success of agro-tourism.

### ***1.6.3 Suggestions to the Visitors or Tourists***

- Visitors are advised to ensure their own safety by taking adequate initiative. This safety is in respect of using agro-tourism related equipment, processes, and involving in events and celebrations.
- During the visit to agro-tourism destination, visitors should try to enjoy and explore more from there by using all the facilities and equipment; thereby they can form a holistic opinion towards the particular field.
- Visitors should get themselves familiar with farm's atmosphere and policies in order to make a homely atmosphere.
- Use of a sense of adventure may deeply be appreciated for becoming the agro-tourism a memorable one.
- It is the need of the hour to prepare the visitors to face calamities as the 'god's own country' is not so ever free from natural and manmade calamities.

### ***1.6.4 Suggestions to other stakeholders including society***

- The society should be enlightened and aware about the agro-tourism in order to gain social support for agro-tourism.
- Members of the society or the common men should see that the agro-tourism is for social welfare.
- Give support to the plastic free tourism is a great help that can be done by the society towards agro-tourism. Only with the help of all stakeholders, agro-tourism ventures can arrive at massive success.

## **1.7 Conclusion**

In order to increase the contribution of agriculture sector, the existing agricultural activities must be strengthened with the provision of additional income generating activities. Tourism can be of a boon in this regard. The clubbing of tourism with agriculture would serve the aim of increasing the contribution from agriculture sector and thereby facilitating the economic development.

Agro-tourism is one of the forms of tourism which capitalizes the rural culture as a tourist attraction. Agro-tourism is an innovative agricultural activity related to tourism and agriculture both. It has a great capacity to create additional source of income and employment opportunities to the farmers. Agro-tourism can promote regional development. It also helps to conserve diversity, and the rural population itself must have recognized agro-biodiversity as valuable and worthy of protection.



In the lights of the above, a study on agro-tourism and its development in Idukki district with efforts to identify the relevant problems and prospects is of great significance. The study also suggests ways to commercialize agro-tourism in this regard.

### 1.8 Implications and Scope for Further Research

Agro-tourism is one of the forms of tourism which capitalizes the rural culture as a tourist attraction. The agro tourism in effect is like a ceremony in most of the parts especially related to some religions where the Mother Nature stands as the Goddess and the crops are regarded as her blessings. When clubbed with religious tourism it has a competitive advantage and has ample scope for empirical exploitation.

### References

- Gupta S.P, (2011), "*Statistical Methods*", New Delhi, Sultan Chand and Sons Publishers.
- Hooda R .P, (2013) "*Statistics For Business And Economics*", Vikas Publishing House,
- Kothari C.R, (2011), "*Research Methodology, Methods and Techniques*", New Delhi, New Age International (P) Ltd, Second Revised Edition.
- Dennis M. Brown and Richard J. Reeder, (2004) 'Agri-tourism Offers Opportunities for Farm Operators', U.S.A. Retrieved from "<https://www.researchgate.net/file.PostFileLoader.html?id=57a98dd217e20711a58e791&assetKey=AS%3A393082974556161%401470729693086>"
- Dev, Mahendra S. (1996), Agricultural Policy Framework for Maharashtra: Issues and Options, Proceeding/Project Report No. 21, Indira Gandhi Institute of Development Research, Mumbai, Retrieved from "[http://shodhganga.inflibnet.ac.in/bitstream/10603/38083/10/10\\_introduction.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/38083/10/10_introduction.pdf)"
- PandurangTaware ,Director Sales & Marketing, Agri Tourism Development Corporation, Pune India 'Agro-Tourism: Innovative Income Generating Activity For Enterprising Farmers', Retrieved from <https://www.uvm.edu/~snrvtdc/agritourism/research/agritourconsid.pdf>
- PandurangTaware, Director – Marketing A.T.D.C., Pune, Agri – Tourism: Innovative Supplementary Income Generating Activity For Enterprising Farmers, Retrieved from "<https://www.uvm.edu/~snrvtdc/agritourism/research/agritourconsid.pdf>"



## THEME OF OPPRESSION IN EDUCATION IN PAULO FREIRE'S PEDAGOGY OF THE OPPRESSED

Ashima Bharathan P.K.\*

### Abstract

*The paper dispense a summary and a critique of Freire's idea in regard to education, philosophy and politics. The review considers how exploitation and oppression affects humans. It find fault with the "Banking model" of education, and advocate the dialogical approach through which individuals could be transformed. The pedagogy of the oppressed by Paulo Freire gathers the political, educational and philosophical theory. The author inspect the detail of oppression and the foundation of liberation. Paulo Freire holds the idea that in order for persons to experience liberation, there is a need for the upshot of critical consciousness and thinking activity in the person. Freire asserts that this is only feasible through a pedagogy that creates a bond between the teacher and the learner, cheering the learner to participate in dialogue and the practice of humanization via thought and its corresponding action. The intention of this paper is to furnish a critical review of Freire's work bearing in mind his assertions on humanization and dehumanization, and oppression in the circumstances of education and fake generosity.*

**Key Words:** Freire, Oppressed, Oppressor, Pedagogy, Education, Banking Model, etc

### Introduction

Leaders who do not act dialogically, but insists on imposing their decisions, do not organize people—they manipulate them. They do not liberate, nor are they liberated: they oppress. (Freire)

Paulo Freire was an educationalist working in Brazil, for political reasons he spent time in other countries including a

period in Geneva where he worked as an adviser on education for the World Council of Churches. After his return to Brazil in 1979 he became engaged in a socialist political party and gradually came to hold an administrative rank as Secretary of Education for Sao Paulo city. Pedagogy of the Oppressed is Paulo Freire's most famous

\* Assistant Professor, Department of English, Yuvakshetra Institute of Management Studies, Palakkad, Kerala. Email: [ashima.bharathan@gmail.com](mailto:ashima.bharathan@gmail.com), Mob: 9995325676

work. In it he displays a theory of education in the context of the revolutionary struggle. While the revolutionary theory is Marxist the context is undoubtedly South American. This book was written in the days Freire was in Chile and published in 1968 in Portuguese. There is a hint of Liberation theology. The educational programmes he describes seem to be focused primarily at rural peasants than the urban poor.

The book with its four chapters deal with; i) the revolutionary context, the oppressed and the oppressors, the historical employment of the oppressed, ii) the method of education supported by the oppressors, which Paulo Freire points out to be the banking concept of education, and which he discusses with his theory of a problem-posing education, iii) a description of his theories in practice in educational programmes with the rural in various South American countries and iv) two conflicting theories of cultural action, 'antidialogical' and 'dialogical', the former focusing to suppress critical reflection of reality the latter supporting the discovery of reality through critical thinking and free communication.

### **Paulo Freire's Thoughts**

Freire's theoretical model is of dialectical materialism, the idea that the human destiny is to be resolved in a fight between the two economic classes of owners and labourers (people who advertise their labour to capital). We don't accept the idea that this struggle is the only centre where man's destiny is to be resolved. In reading this book, our aim is to shift through it and see what remains of importance after the dialectical materialism is torn away. Our second aim is to question

how relevant that the left over theory is to contemporary Western schooling.

For Freire, education and oppression are interrelated, since education can be used either as a tool for oppression or as a method of liberation from oppression. Freire distinguishes between a pedagogy that supports oppressors, and one that supports oppressed people understand and change their society. He outlines the problems with oppressive education, ensures the liberation in education, and describes how educational tools can support political applications that motivates a society attain and maintain freedom. Freire's focus of his book is to invent and describe an educational practice that can free people and capable of changing the society.

### **Theme of Oppression in Education**

Before elaborating about his particular educational model, Freire talks more indefinitely about a "pedagogy of the oppressed," arguing that a "pedagogy of the oppressed" should push oppressed people to know oppression. He says that oppressed people should be directly engaged in the development of this pedagogy so that they have the freedom to know things that are relevant to their lives. This act of reflection should then push oppressed people to fight for their freedom, it should show them that oppression can be overcome. In the base of this, Freire argues that "the pedagogy of the oppressed cannot be developed or practiced by the oppressors," who would never actually support the oppressed people become free.

Freire points out that only people with political dominance can implement a model of education on a large scale. Therefore,

oppressed group should start to implement the pedagogy of the oppressed on a small scale while they organize to fight for freedom. Freire calls these minor uses of his pedagogy “educational projects,” and he organised many of them in his own country of Brazil before publishing *Pedagogy of the Oppressed* in 1968.

Freire gives names to the two competing models of education described above: he addresses the traditional pedagogy of modern education the “banking model,” and calls the liberating pedagogy he suggest the “problem-posing model.”

The “banking model” depends on a hierarchy in the classroom: the teacher has more knowledge than the students, and therefore has all the power. In this model, the teacher “deposits” facts into the intellect of the students, who have to retain and recall those facts. Freire assert that the banking model freshen the oppressive social structure that multiple people live in: it makes one group of people dominate the other, and lets the superior group define what is good or correct.

The “problem-posing” model, creates a more candid relationship between the educator and their students: in a “problem-posing” classroom, everyone stuffing the role of teacher and student at the same time. These “teacher-students” and “student-teachers” fix together what matter are important to talk about, and the educator then poses these topics as “problems” for the whole class to solve. This model does not gratify the educators as more “correct” or “knowledgeable” than their students; instead, it accept that everyone has something to contribute to the class. It’s much related

to Freire’s conceit of a society without oppression, where everyone’s voice has equal value.

Freire also points out that his pedagogy has exercise in politics, as well as in education, since political leaders can use educational methods to carry their political work. In the fight to remove an oppressive system, political leaders have their methods of challenging the oppressors’ power. Freire argues that these methods have a a lot in common with his pedagogy. For example, political leaders use “organization” to gather people together in a structured group. Freire calls this method “highly educational.” When political leaders make oppressed people to fight for freedom, they all learn how to form a social structure that permits everyone to be free.

Freire's view of the social situation is based on the principles of dialectical materialism; an oppressor class oppresses and an oppressed class is oppressed. His particular anxiety is with the state of consciousness of the oppressed class. The oppressed class is deluge, having accepted the rank into which they are oppressed. The historical calling of the oppressed class is to fight against the oppressor and understand their humanity which the oppressor prevents them. Only the oppressed class can identify humanity, but they do it for all. That is the oppressed class possess the role of setting free the oppressors, as well as itself, from their role as oppressors, thus settle a contradiction in which they neither are fully humans.

Freire outlines the relations which exist between oppressor and oppressed.

For example: "Any situation in which 'A' objectively exploits 'B' or hinders his or her pursuit of self-affirmation as a responsible person is one of oppression". And also: "One of the basic component of the relationship between oppressor and oppressed is direction. Every prescription amount to the imposition of one individual's alternative upon another, coersion of the consciousness of the person prescribed into one which conforms with the prescriber's consciousness." He states that the oppressed may internalise the oppressor. The oppressed who emerge from their submergence in being-for-the-other or thingness are 'dual' beings; they have an attitude of adhesion to the oppressor and cannot sufficiently 'objectify' him. Freire writes: "But almost always, during the initial stage of the struggle, the oppressed, instead of striving for liberation, tend themselves to become oppressors, or 'sub-oppressors'"(Freire). The peasant who just accepts some education may express a wish to be supervisor on the ranch for example. Later this theory of the 'dual-nature' of the peasants builds the possibility of a kind of authoritarian outlook. In theory it creates the chance that peasants who fail to agree with the revolutionary ideas can be sent away as having 'internalised the oppressed. The education that Freire is proposing in this book is one that makes "oppression and its causes objects of reflection by the oppressed", and he continues, "from that reflection will come their necessary engagement in the struggle for liberation"(Freire). It is thus a pedagogy for the oppressed .

A prime theme throughout the book is that of 'praxis'. This theory relates the work of critical reflection on the situation of

oppression with action which modifies that situation in a concrete, objectively observable way. Freire writes a mere perception of reality is not followed by this critical intervention which will not lead to a transformation of objective reality - precisely because it is not an exact perception. The involvement with actions which are collective, biased and supported by the revolutionary leaders ensures the originality of the perceptions. Action devoid of reflection is 'activism'.

Reflection in absence of action is 'subjectivism', which Marx has "scientifically destroyed" -a reference to the theory that human destiny is realised in the class struggle and political action perhaps. It is only when the oppressed identifies the oppressor out and become involved in the organized fight for liberation that they begin to believe in themselves. This discovery could not be primarily intellectual but must involve action. It cannot be limited to mere activism, but must include serious reflection: only then will it be a praxis.

It is not fully clear whether this means every thinking or it is just a reflection on social matters which cannot be authentic unless it is linked to action. It is given that the historical vocation of mankind is to be found in the class struggle and in the revolution it seems that all merely academic thinking is regarded as suspect. Freire puts forward matters concerning those who "retreat from the world to consider it": "But this type of retreat is only valid when the meditator is 'bathed' in reality; not when the retreat relates to contempt for the world and flight from it, in a type of 'historical schizophrenia'". The revolution is primary; philosophy is allowed only if the thinker is 'bathed' in reality, this

bathing we assume connecting him to the revolution and history.

The thing has been proven and now is to change the world. There is a definite interpretation of the world since it is scientifically proven further arguments are mere subjectivism. This proves the heart of the matter. For Marxists philosophy is bent on human destiny which is to be identified through the class struggle. Any further theorizing is vaporising. For Heidegger and others this is a forbid of the argument. We too, maintain, that philosophical thinking without political action is resonable. We would allow the thought about existence could be real even when it is not mere political thinking. Freire seems to permit this but only marginally. It could be given a greater priority.

Nevertheless the way Friere brings the political into focus is important. A person who does not think about social and political actuality but simply accepts it is by that participation in the world in an approach which has been ordered for him by others. If being human means practicing freedom this is to be lower than human. To echo the normal life laid down----- for one in this society is an unfree one and then to change nothing does indeed render the reflection superficial, mere vaporising empty thoughts. To act on the basis of this reflection would indeed deepen the insight and lead to further insights. The argument can be expanded; one is not confined alone. If society is arranged in such a way that one is confined it is likely that others will be captived too. A critical reaction that simply formulated a personal livingstyle on a egoistic basis would be meaningless given the interdependence

of human beings. There is of course an argument about the features of the composed struggle. If we assert, the notion of class fight and the materialist analysis is erroneous how do we get away from a primly each man for himself, solipsist, vision of freedom?

Freire points out some of the problems encountered by revolutionary movements. As an example; "However, the moment the new regime hardens into a dominating 'bureaucracy' the humanist dimension of the struggle is lost and it is no longer possible to speak of liberation"(freire). He admits that the revolutionary leadership may ignore the peasants and simply speak them about the revolution rather than uplift them that they participate in it as reflecting/acting human beings. He allows that "However, the restraints imposed by the former oppressed on their oppressors, so that the latter cannot reassume their former position, do not constitute oppression"(freire). It is of course a narrow line between oppressing the former oppressors to uphold the purity of the revolution and suppressing them for personal benefit. These problems is seen in relation to the real historical failures of socialism. George Orwell spoke how the revolutionary leaders will be hard-pressed to admit defeat their comfort in the post-revolutionary period in *Animal Farm* and indeed were in Stalin's Russia. In *The Rebel* Albert Camus spoke how revolutions tend to turn nasty as they force their vision of the end of history on those who are to be protected. The problem with dialectical materialism is that the economic struggle between classes is not the prime determining factor in history. The mode of production and the forms of economic relationship analysed by Marx



are one form of economic relations. It is not the total context in which human fate is worked out.

It is simply unlikely that a simple blueprint of two opposing classes, with the latter guided by the 'revolutionary leaders', will fight to resolve the contradiction between them and thereby resolve human destiny once and for all. It is the story-line for a film. Psychologically such a method leaves out of the way the problem of human violence. The oppressed are not pietist. Freire again is aware of this when he points the dangers of 'revanchism' on the part of the peasants. But he offers no alternative to the problems of evil and cruelty in human beings. The problem is that all the measures and warnings he feels to cite are needed because when the revolution continues this is truly what happens. Confused between justifying the violence of the oppressed as a 'loving' response to the violence of the oppressor and not wanting to present his champion dripping with blood.

## References

- "Skewed Perspective - Education Next". *Education Next*. 2009-10-20. Retrieved 2017-03-05.
- Archie Dick (2010) "Librarians and Readers in the South African Anti-Apartheid Struggle", publiclecture given in Tampere Main Library, August 19, 2010.
- Bowers, R. (2005). Freire (with bakhtin) and the dialogic classroom seminar. *Alberta Journal of Educational Research*, 51(4), 368-378. Retrieved from <http://search.proquest.com/docview>
- Freire, P. (2004). *Pedagogy of the oppressed*. New York, Continuum.
- Freire, Paolo (2014) *Pedagogy of Hope: Reliving Pedagogy of the Oppressed*, New York: Bloomsbury, p.67.
- Freire, Paulo. *Pedagogy of the Oppressed*, 30th Anniversary ed. New York: Continuum, 2006.
- Freire, Paulo. *Pedagogy of the Oppressed*. New York: Continuum, 2007.
- Holst, J. D. (2006). Paulo freire in chile, 1964-1969: Pedagogy of the oppressed in its sociopolitical economic context. *Harvard Educational Review*, 76(2), 243-270, 285-286. Retrieved from <http://search.proquest.com/docview/212261176?accountid=35812>
- Jackson, S. (2007). Freire re-viewed. *Educational Theory*, 57(2), 199-213. Retrieved from <http://search.proquest.com/docview/214138316?accountid=35812>
- Lundholm, Nicholas (2011) "Cutting Class: Why Arizona's Ethnic Studies Ban Won't Ban Ethnic Studies" (PDF). *Arizona Law Review*. 53: 1041-1088.
- Pitts, J.P. (Sep., 1972). Pedagogy of the Oppressed by Paulo Freire; *Deschooling Society*. by Ivan Illich, *Journal of Black Studies*, 3 (1), 111-116.
- Rich Gibson, The Frozen Dialectics of Paulo Freire, in *NeoLiberalism and Education Reform* Hampton Press, 2006
- Schugurensky, D. (2011). *Paulo Freire*. London: Continuum International Pub.
- Stern, Sol. "Pedagogy of the Oppressor", *City Journal*, Spring 2009, Vol. 19, no. 2



## INTEREST RATES: A BALANCE BETWEEN PROFITABILITY OF BANKS AND SAVINGS OF CUSTOMERS

Cyndrella V.S\*

### Absrtact

*India is one of the fastest growing economies in the world. India's GDP of 7.9 per cent is distributed mainly in sectors like agriculture, banking, IT etc. The banking industry and its policies gains utmost importance as the financial sector is almost stagnant without banks. With the announcement of demonetisation and implementation of GST, banking sector has reduced its deposit rates to nearly 3.5 percent and imposed 15 percent tax rates on all its transactions. Over 90 percent of customers are affected by these policies. Customers are all losing interest in their savings account maintained with these banks. Banks profitability also recorded a substantial decline resulting in lower returns on assets (ROA) at 0.3 percent during the present year. High interest rates on bank loans particularly those of the public sector banks and coupled with a consequent increase in the provision for NPAs weigh adversely on the credit growth, which is reflected in their risk and resultant stressed financial position.*

*This paper develops a method for estimating the average asset and liability maintenance of banks as well as customers perceptions to shift their investment and savings pattern. There are many factors which affect profitability of banks like asset- structure and quality, capitalisation and cost of equity, size of banks, customer deposits, operational efficiency, increase in agency services, interest rates etc. There is a widespread notion that majority of bank's transactions are related to the loans they offer. The assets of the bank and the profitability of the bank increases with percentage of loan in the total assets of the bank. The paper also attempts to study whether the interest rates are able to maintain a balance between savings of customers and profitability of banks. An attempt is made to understand the relation that exist between the hike of interest rates of loans and the declining deposits in the bank and how this effects the profitability of banks.*

**Keywords:** Interest rates, Lending rates, Profitability of banks, Declining deposits, etc.

### Introduction

Bank is a financial institution that provides banking facilities like accepting deposits and lending loans. In this globalised era banking industry gains

\* Assistant Professor; Department of Commerce, Pavanatma College, Murickassery

much more importance as the financial sector is rather stagnant without banks. With the announcement of demonetisation and implementation of GST, the banking sector has reduced its deposit rates and imposed high transaction costs. Over 90 % of customers are affected. This study aims to analyse whether interest rates maintain the balance between profitability of banks and savings of customers. There are many factors which affect profitability of banks. They are its asset- structure and quality, which helps to manage risk, capitalization and cost of equity, size of the bank, customer deposit, operational efficiency, increase in agency services, interest rates etc. Majority of a bank's transactions are related to loan, the asset of the bank. The profitability of banks increase with hike in interest rates of loans which is an asset to the bank. But the study attempts to study the relation of interest rates between savings of customers and profitability of banks. It studies whether savings deposit on the liability side increase profitability.

### **Statement of the Problem**

With effect of demonetisation and implementation of GST banks has been kept under huge pressure to initiate new policies. One among them was deregulation of various rates which affected many customers and has paved the way for more competition from all sectors.

### **Objectives**

- 1) To analyse whether there exists a correlation on interest rates fixed between profitability and savings of customers.
- 2) To know whether the aim behind deregulation of interest rates is to spur competition among banks or to maintain liquidity.
- 3) To study the impact of interest rates on customers as an inducement to shift their savings

### **Significance of the Study**

Due to the emerging importance of banking industry there is an estimated 320 million savings accounts. It is also noteworthy that due to recent government initiatives like demonetisation and GST, banks are also struggling hard to maintain their profitability. Continuous deregulation of various rates is a significant factor that has to be analysed to know whether both are mutually benefited. So this study gains importance to analyse the impact of fluctuations in interest rates whereby it analyses whether interest rates maintain a balanced relationship between customer savings and profitability of banks.

### **Methodology of the Study**

To study about the balance between profitability of banks and savings of customers. Firstly we need to study about the savings of customers. Secondly the profitability of different banks. Finally the relation between the two variables. Interest rate is an independent variable, banks profits and customer savings are dependent variables

To analyse interest rates as a balance between customer savings and profitability both primary data and secondary data has been used. A survey questionnaire was used to collect data from 30 respondents to analyse the impact of interest rates on

customer savings. Secondary data was used for analysing the impact of interest rates on profitability of banks.

### **Limitations of the Study**

1. There may be many other variables which may greatly influence the study.
2. The accuracy and reliability of data depends on the information provided by the respondents

### **Literature Review**

The economic development of our country depends more on real factors like the industrial development, modernisation of agriculture, organisation of internal trade and expansion of foreign trade also on monetary factors. Banking industry and its policies gains an important role as financial sector is stagnant without banks. As the definition of banking says, the bank accept deposit and lend loans. It is cheaper for banks to use deposited money than to borrow from other banks. This positively influence profitability. This is why banks attract deposits which increase their liability side. Customer deposits provide banks money to make capital to give loans.

### **Present Scenario of Banking**

The announcement demonstration and implementation of GST gave a big push to Indian economy. This one move effectively has resented the economy. The banking sector was the beneficiary with access to huge deposits. The banking sector witnessed a growth of 7.7 percent compared to 9.7 percent earlier. A high and raising proportion of bank loans, particularly those of public sector banks (PSBs) and a consequent increase in provisioning for non-performing

assets (NPAs) weigh their credit growth, reflecting their lower risk and stressed financial position. However, profitability recorded a substantial decline lowering in lower Return on assets (ROA) at 0.3 percent during the year.

### **Deregulation of Interest Rates**

Interest rates is an important factor for both customer savings and profitability offers banks. The fluctuations in interest rates and how it affects different aspects of profitability, customer behaviour have always attracted the interest of researchers. Recently there was a lot of regulation of policies and rates by various banks like reducing deposit rates to 3.5 % and hiking lending rates. Banks also increased its transaction cost to 15 % of its cost. Banks have also brought minimum average balance requirements. Banks are charging per account without minimum balance of 1000 and 5000 as per nature of accounts. In short bank accounts cannot be used as an investment opportunity. In the opinion of financial planning experts it is time for investors to invest their fund to other investment sectors which yield higher returns. According to RBI the reasons for deregulation is to maintain surplus liquidity, fall in rate of inflation etc.

### **Effect of Deregulation of Interest Rates**

In 2010 M.kDatar (economic and political weekly) opine that savings bank account holders are less sensitive to interest rates variations. They are likely to be influenced by non-price factors like service quality easy accessibility. Interest rates may not see a major shift in accounts. But the research gap in the current scenario initiatives presents a quiet different view.

## Interest Rates and Profitability of Banks

A study was conducted by Muhammad Faizan Malik, Shehzad Khan, Muhammad Ibrahim Khan, Faisal Khan on “Interest Rate and Its Effect on Bank’s Profitability” published in Journal of Applied Environmental and Biological Sciences in 2014. This study examines the effects of interest rates in the profitability of banks in Pakistan. The profitability of banks were analyzed using Return on Assets (ROA) and Return on Equity (ROE). The study was conducted separately for public sector and private sector banks. This study concluded that the interest rates positively influence the profitability of private banks more than that of public banks.

## GST and Banking

As per LIVE MINT e-paper published on Jun 30 2017, after GST the financial services would attract a higher tax of 18% as against 15%. Common banking services that would attract higher service tax include debit card, fund transfer, ATM withdrawal beyond the number of free services, home loan processing fee, locker rentals, issuance of cheque books/drafts/duplicate passbooks, collection of bills, collection of outstation cheque, cash handling charges and SMS alerts

## Analysis and Interpretation

### *Analysis of Impact of Interest Rates on Profitability of Banks*

Banks’ profitability is affected by factors like asset-structure and quality, capitalization and cost of equity, size of banks, customer deposits, operational efficiency, increase in agency services, interest rates, level of liquidity provisioning policies etc.

There is a widespread notion that majority of bank’s transactions are related to the loans they offer. It is true that assets of the bank and the profitability of the bank increases with percentage of loan in the total assets of the bank. Assets are the investment made by accepting loans, but in the current scenario income derived from loan portfolio is fluctuating widely. There is high mounting up of non-performing assets (NPAs). There is also a consequent increase in the provisioning of NPAs too. This shows a stressed financial position. Thus widespread notion cannot be relied upon fully.

Commercial banks financed their assets using various deposits which are their liabilities. They don't use long term debt except as a small fraction. Deregulations in lending rates is causing shift in investment avenues. PSUs reduced the fixed deposit rate to 6.25% and saving deposit to 3.5%. This causes increase in volatility of the demanding deposits. The liability cost of these deposits are also causing fluctuations in the profitability earned by banks. Profitability of public sector banks diminished with a significant decline in the return on assets (ROA)

Thus it is found that bank management moved to alleviate pressure on solvency by adjusting the asset and liability mix through transaction costs and interest rates fluctuations. Still as of present, it is not able to effect a significant positive outcome for banks profitability and solvency. These results partially serve the profitability and savings problems.

**Profitability of Various Banks based on Quarterly Results.**

| Banks               | Net Profit For<br>March 2017 (Cr) | Net Profit For<br>June 2017 (Cr) | Change         |
|---------------------|-----------------------------------|----------------------------------|----------------|
| State Bank Of India | -3,383.48                         | 3,105.35                         | 6488.83 (191%) |
| Andhra Bank         | 351.4                             | 404.2                            | 52.8 (15%)     |
| Indian Bank         | 319.70                            | 372.41                           | 52.71 (16%)    |
| Icici Bank          | 2,024.64                          | 2,049.00                         | 24.36 (1.2%)   |
| Pnb                 | 2,619.00                          | 3,434.00                         | 815 (31%)      |
| Bank Of Baroda      | 154.72                            | 203.39                           | 48.65 (24%)    |

[moneycontrol.com]

From the above table it is evident that the profits of the banks have increased when we compare the quarterly net profit. The net profit of quarter ending on March 2017 is compared with quarter ending on June 2017. Banking literature always agree to the positive relation between reduction in interest rates and profitability of banks. But the sole reason for increase in profitability cannot be substantiated by making fluctuations in interest rates. So it can be said that banks are fluctuating interest rates to spur competition among them as well.

**Analysis of Impact of Interest Rates on Savings of Customers**

For the purpose of analysis, we collected data using questionnaires which are send to the customers through mail and other social networking sites. For the purpose of sharing the questionnaire on line, we created the questionnaire using Google Forms and took the survey. Close ended questions are included in the questionnaire to get the answers of the objectives laid down in the study. The analysis of our study shows that 37% of the customers have below 5 years' experience. 33% of respondents have 5 to 10 years of banking experience and

30 % of customers have above 10 years of experience in banking. Majority of the respondents (58%) prefer Public sector banks. 36% of the respondents prefer private sector banks. One respondent each prefer co-operative banks and foreign banks. 15 respondents prefer only public sector banks. 8 respondents prefer only private sector banks and 7 customers prefer more than one type of banks. Analyzing the type of deposit maintained by the banking customers. 83 % of the respondents maintain savings deposit. Only 2 and 4 of them respectively maintain current and fixed deposits. All the respondents except one maintain savings account. Five of the respondents maintain both savings and another type of account. Also the purpose for which customers maintain savings account is that 9 of the respondents maintain savings account for more than one purpose. Only 13 out of 40 responses consider savings account as an investment i.e. 32.5%. Other 9 responses (22.5%) maintain savings account for salary purpose. Most of the customers (45%) maintain savings account for other purposes. It is also analyzed that majority of the respondents (42%) prefer savings account for online transaction. Secondly customers keep savings account to deposit



money (40%). 2 responses and 3 responses for lending purpose and agency services respectively. The other purposes include fund

transfer and scholarship purpose. 16 of the 30 respondents i.e. 53% maintain savings account for more than one purposes.

Table 1

*Perception of customers*

| Perception of Customers                                                          | Yes      | No       | Total     |
|----------------------------------------------------------------------------------|----------|----------|-----------|
| Return on investment meet expectation                                            | 40% (18) | 60% (12) | 100% (30) |
| Wish to maintain further deposits in any banks because of the propensity to save | 43% (13) | 57% (17) | 100% (30) |
| Experience 15% charge as transaction cost.                                       | 73% (21) | 27% (8)  | 100% (30) |
| Wish to shift your investment pattern to other sectors                           | 53% (16) | 47% (14) | 100% (30) |

The above Table 01 depicts the perception of respondents regarding various aspects of banking and return. Majority (60%) of the respondents are not satisfied with their returns on investment and performance of banks, substantiating to the point that majority (57%) of respondents do not wish to maintain further deposits with the bank. Most people i.e. 21 experience a charge of 15 % as transaction costs in their transactions like ATM, message charges, money transfer and such other services. When 16 people are interested in shifting their investments to other sectors and almost same number of people (14) are not interested in shifting their investment due to security and stability offered by bankers.

Table 2

*Sectors considered to invest other than banks*

| Sectors               | No: of Respondents | %    |
|-----------------------|--------------------|------|
| Money Market          | 4                  | 8%   |
| Share Market          | 11                 | 21%  |
| Post Office Savings   | 14                 | 27%  |
| Public Provident Fund | 5                  | 9%   |
| Mutual fund           | 14                 | 27%  |
| Debentures & bonds    | 4                  | 8%   |
| Total                 | 52                 | 100% |

Table 02 represents the preference of respondents other than banking for investment. Respondents prefer Post Office Savings and Mutual Funds equally, which are also the most highly preferred sectors of investment. Secondly respondents prefer share market. The least preferred choices are public provident fund, money market, debentures and bonds.

Table 3

*Reasons for the preference of investment sectors*

| Reasons         | No: of Respondents | %    |
|-----------------|--------------------|------|
| Security        | 15                 | 28%  |
| Higher returns  | 14                 | 26%  |
| Tax benefits    | 10                 | 19%  |
| Better services | 4                  | 7%   |
| Stability       | 7                  | 13%  |
| Market trend    | 3                  | 5%   |
| Others          | 1                  | 2%   |
| Total           | 54                 | 100% |

Table 03 shows that various reasons for the preference of different investments other than banking. Almost equal number of respondents prefer security (28%) and higher

return (26%) which is contrast in all sense. 19% of respondents investment is based on tax benefits. 13% preferred stability in their investment. Less number of respondent are

reactant to better services, market trend and other reasons like diversified portfolio. 17 of the 30 respondents have more than one reason to select investment sectors.

Table 04

*Perception of respondents*

| Perception of Customers                                                  | Yes | No  | Not Bothered | Total |
|--------------------------------------------------------------------------|-----|-----|--------------|-------|
| Aware of increase in transaction cost after implementation of GST        | 60% | 27% | 13%          | 100%  |
| Feel forced to use digital transactions after demonetization of currency | 63% | 37% | -            | 100%  |
| Sensitive towards the Interest dip in deposits and hike in lending rates | 73% | 27% | -            | 100%  |
| Influence by factors other than interest rate                            | 63% | 37% | -            | 100%  |

Above half of the respondents agree with the four questions. 60% agree that they are aware of increase in cost of financial transactions after the implementation of GST. Four of the respondents are not bothered about the increase in cost of financial transactions. 63% o feel forced to use digital transactions after demonetization. 20 out of 30 are sensitive towards increase in lending rate and decrease in deposit rates. 63% i.e. 19 respondents are influenced by any other factors like service quality, easy accessibility other than interest rates

**Findings and Conclusion**

- It is found that customers do not have high propensity to save. People are willing to spend. It is proved as only less people maintain fixed deposits as investment.
- Customers also use banks mainly for online transactions which substantiates that banks are not preferred as investment avenues.

- Customers prefer to invest in other sectors which provide adequate returns. So it can be said that people will be willing to save only if their return on investment meet their expectations.
- Customers are sensitive towards dip in deposit rates and hike in lending rates.
- In the present scenario customers are well aware of other investment opportunities. They are also well educated about the changes taking place. So banks will see a dip in their deposits unless they ensure fair return on their investment.
- On analysing the profitability, it is found that interest rates are used as a double edged sword. It is in the sense they have regulated rates to negate the impact of mounting NPAs as well as to spur competition among them. Thus interest rates partially mediates the relationship between customer savings and profitability.

## CONCLUSION

Customers who are typically risk-averse and consists of retired people or other low-income sections with little appetite for high-risk, high-return financial instruments, such banking customer park their money in banks, National Savings Certificate, and (PPF) etc. Though previous studies state that savings bank account holders are less sensitive to interest rate variations, this study has proved it inversely. This is mainly because of research gap. Presently the reduction in interest rate adversely affected 90% of customers. Such people who opt for security and stability will not prefer capital market or mutual funds. It is this category that majority of ordinary working class people belong to. The reduction in rates is a disappointment to this section of people.

Profitability of PSBs increased with increase in return on assets ROA as well as due to regulated rates. Banks are recovering from the stressed financial position. Since regulated rates do not favour customers, a good correlation is not maintained. Thus thls study found that interest rates partially mediates the relationship between customer savings and profitability.

## References

- Economic and Political Weekly  
LIVE MINT e-paper published on Jun 30 2017.  
Economic Times  
NDTV Business  
(n.d.). Retrieved from Personalfn.com  
First spot  
(n.d.). Retrieved from [www.moneycontrol.com](http://www.moneycontrol.com)  
Malik, 8. F., Khan, S., Khan, M. I., & Khan, F. (2014). Journal of Applied Environmental and Biological Sciences, 225-229.  
(n.d.). Retrieved from [www.i-scholar.in](http://www.i-scholar.in)  
(n.d.). Retrieved from [www.indianjournals.com](http://www.indianjournals.com)  
Datar, M. K. (2010). *Economic and political weekly*.



## EFFECTIVENESS OF LESRA MODEL ON ACHIEVEMENT IN MATHEMATICS AMONG NINTH STANDARD STUDENTS

Sr. Romy Jacob\*  
Dr. C. C. Kurian\*\*

### Abstract

*The importance of Mathematics Education at the school level stems from the fact that it is more than just a presentation of facts, it is the development of new ways of thinking, a development of increased skill to deal with life problems, in new habits of action, in more desirable attitudes, in a benefited personality and in an improved character. Mathematics in modern society is unique in its extremely wide scope and its high degree of development. Mathematics learning should promote students inquiry skills and abilities, students ability to apply what is learned to new contexts, understands the nature of Mathematics. Considering the importance of Mathematics, much stress is at present, given to the learning and teaching of this subject. For this, new and innovative methods of teaching are implemented in this field. The present study proposes to investigate the effect of LESRA Model on the Achievement in Mathematics among ninth standard students. Through this study investigator is trying to enhance the rigor and expand the scope of the Mathematics teaching in school. Non-equivalent PretestPosttest group design was adopted for the study. The study showed that the instructional material based on LESRA Model was effective in enhancing the Achievement in Mathematics among ninth standard students.*

**Key Words:** Self-image, Curriculum, LESRA Model, Pedagogy, Collaboration, Achievement etc.

### Introduction

The system of education in our country especially the school system prepares boys and girls with knowledge, ability, and

attitude to face the uphill task of higher education. It also provides opportunities for developing positive self-image of the person and exposing them to the cultural scenario.

\* Former M. Ed Student, St. Thomas College of Teacher Education, Mylacompu

\*\* Associate Professor, St. Thomas College of Teacher Education, Mylacompu

Some schools satisfy the need of their age. But most of the children are neither happy with their school work nor are they with their school atmosphere. Science especially Mathematics as a subject, is an essential element of children's education right from the elementary stage to the secondary stage. It forms as one of the core subjects at the higher secondary stage.

The importance of Mathematics Education at the school level stems from the fact that it is more than just a presentation of facts, it is the development of new ways of thinking, a development of increased skill to deal with life problems, in new habits of action, in more desirable attitudes, in a benefited personality and in an improved character.

Mathematics in modern society is unique in its extremely wide scope and its high degree of development. Mathematics learning should promote students inquiry skills and abilities, students ability to apply what is learned to new contexts, understands the nature of Mathematics. The new curriculum emphasizes on comprehension domain, application domain, attitude domain and creativity domain. For achieving those objectives many activities are designed by educational experts such as survey, discussion, debate, seminar, symposium, etc. The repetition of such activities lead to lack of interest in learning Mathematics among pupil. In a nutshell, the classroom must be changed from its conventional level to a creative level. This sensitizes the investigator to develop LESRA Model for enhancing Achievement in Mathematics.

Mathematics is a skillful, thought provoking and logical ability needed subject

which comes by proper training. Some blessed brains have the ability to solve many complicated problems by learning and practicing. Solutions to even the most complex mathematical problems should never be mystery to the student. A dedication to studying mathematics of and on over time will help the students keep maintain and enhance these skills.

Considering the importance of Mathematics, much stress is at present, given to the learning and teaching of this subject. For this, new and innovative methods of teaching are implemented in this field. For that we need some research in it. Research in mathematics education has primarily two purposes. First to better understand the nature of mathematical thinking teaching and learning and second to use such knowledge in practice for learning and teaching Mathematics. Such researches attempted to develop effective models for the teaching of this subject.

The purpose of the present study in LESRA Model in Mathematics teaching is to stimulate and promote students interest and enjoyment of Mathematics learning. The focus is on the Achievement in Mathematics that the teacher wants students to engage in beyond what students will be doing. Beyond getting to an answer, the teacher considers the mathematical ideas that students will learn more deeply as a result of working on mathematical task.

### **Need and Significance of the Study**

The present study proposes to investigate the effect of LESRA Model on the Achievement in Mathematics among ninth standard students. Through this study

investigator is trying to enhance the rigor and expand the scope of the Mathematics teaching in school. To prepare students to become active and productive members of local and global communities, students need to engage in mathematical tasks within a relevant context that not only develops understanding of mathematical concepts, but skills relate to problem solving, collaboration and technology.

For this to happen, a shift in pedagogy must occur. Mathematics teachers typically use an outdated mode of instruction, the gradual release of responsibility model (I Do We Do You Do). This model prevents the use of contexts truly relevant to students and provides a few opportunities for students to develop problem solving, collaboration and technology skills. Instead of gradual release model a more appropriate strategy is LESRA. This model can serve as a powerful guide for aligning curriculum assessment, teaching and learning environment. Ultimately LESRA Model can move mathematical teachers beyond the mechanical aspects of planning lessons and units to deeper consideration of how to advance student's mathematical understanding throughout.

This model encourages students to construct knowledge of Mathematics through the exploration of mathematical tasks either individually or in small group. This occurs during the Launch, Explore, Summarize, Refeect and Apply steps. In addition, students extend their learning in LESRA Model applying the mathematical concepts learned through exploration to other contexts or real world scenarios during the applied steps.

## Statement of the Problem

### EFFECTIVENESS OF LESRA MODEL ON ACHIEVEMENT IN MATHEMATICS AMONG NINTH STANDARD STUDENTS

#### *Operational Definitions of Key Terms*

##### *Effectiveness*

According to Oxford Advanced Learners Dictionary (2014), effectiveness means the degree to which something is successful in producing a desired result.

In the present study the investigator used the word effectiveness to describe the consequences of LESRA Model on Achievement in Mathematics.

##### *LESRA Model*

LESRA stands for Launch- Explore-Summarize- Reflect- Apply. It is an interactive model that promote a deep understanding about Mathematics to teachers and students.

**L-Launch:** Help the students understanding the settings, mathematical context, the challenges and clarifies goals and expectations.

**E-Explore:** This is where students work in small group or individually to solve the task, shifting the onus of learning from teacher to students. This is the time of students to work on the task by applying their prior knowledge and skills to persevere in problem solving. The teachers role is to move among students, allow students to struggle and make mistake and listen carefully. See what solutions students are coming up with. Help students who are stuck or who are ready to move ahead, mainly through questions to stimulate their thinking.



**S-Summarize:** Bring the whole class together to follow up on Exploration and make mathematical connections.

**R-Reflect:** In this component, each student is asked to establish her/his level of mathematical understanding relative to the instructional goal. Reflect helps the teacher determine who may need additional teaching and/or exploration as which students have a firm grasp of concepts and are thus ready for deeper levels of learning.

**A-Apply:** Help the students generalize the mathematical understanding developed during the Exploration by applying the learning to other context or real world scenarios.

This model is intended to improve the learning of in Mathematics through exploration.

### ***Achievement in Mathematics***

Achievement in Mathematics is considered to be the total score obtained by the individual as measured in the achievement test to be conducted by the investigator in Mathematics of the selected unit.

### **Objectives of the Study**

- To find out the effectiveness of LESRA Model on Achievement in Mathematics among Ninth Standard students.
- To find out the effectiveness of LESRA Model on Achievement in Mathematics among Ninth Standard Girls.
- To find out the effectiveness of LESRA Model on Achievement in Mathematics among Ninth Standard Boys.

- To find out whether there is any significant difference between boys and girls of experimental group on Achievement in Mathematics.

### **Hypotheses of the Study**

- The mean of gain scores of experimental group is significantly higher than that of control group.
- The mean of gain scores of girls of experimental group is significantly higher than that of control group.
- The mean of gain scores of boys of experimental group is significantly higher than that of control group.
- There is a significant difference between boys and girls of experimental group on the means of scores of posttest.

### **Methodology in Brief**

Non-equivalent PretestPosttest group design was adopted for the study. Two sections of class IX were taught through two different teaching strategies. One section of class IX which was exposed to the LESRA Model acted as the experimental group while the other which was exposed to the prevailing teaching method acted as the control group. A pretest was administered to the pupils to test their Achievement in Mathematics before the experiment commenced, in both the groups. After teaching the content of Mathematics, through the two different teaching strategies in the two sections, a posttest was administered to the pupils. Using the scores of pretest and posttest, gain scores were found out and based on the gain scores of experimental group and control group 't' value was calculated to test the significance of difference in means.

## Variables Involved in the Study

- **Independent Variable**  
LESRA Model
- **Dependent Variable**  
Achievement in Mathematics

## Objectivewise Analysis of Data

### *Analysis and Interpretation of Objective One*

The first objective of the study was to study the effectiveness of LESRA Model on the Achievement in Mathematics among ninth standard students.

In order to study the effectiveness of LESRA Model, using the scores obtained at the pretest and posttest scores of the experimental group, the gain score of each student was calculated. Then the mean and standard deviation of the gain scores of the experimental group was found out.

In a similar way, the mean and standard deviation of the gain scores of control group was also found out. The statistics calculated are given in table 1.

Table 1

*Number (N), Mean (M) and Standard Deviation (SD) of Gain Scores of Experimental Group and Control Group*

| Group              | N  | M    | SD   |
|--------------------|----|------|------|
| Experimental Group | 46 | 19.2 | 1.81 |
| Control Group      | 46 | 12.8 | 2.41 |

Table 2

*Number (N), Mean (M), Standard Deviation (SD) and 't' Value of the Gain Scores of Experimental Group and Control Group*

| Group        | N  | M    | SD   | 't' value | Result                    |
|--------------|----|------|------|-----------|---------------------------|
| Experimental | 46 | 19.2 | 1.81 | 14.39     | Significant at level 0.01 |
| Control      | 46 | 12.8 | 2.41 |           |                           |

The table shows that mean of gain scores of experimental group is 19.2 and that of control group is 12.8. The corresponding values of standard deviations are 1.81 and 2.41 respectively. The values of mean showed that the mean of experimental group is higher than that of control group.

So the investigator concluded that the instructional material based on LESRA Model was effective for enhancing the Achievement in Mathematics.

Then it was further analyzed using the first hypothesis, which states as:

H1: The gain scores of experimental group is significantly higher than that of control group.

To test this research hypothesis it was converted into a null hypothesis as:

H0: The gain scores of experimental group is not significantly higher than that of control group.

The null hypothesis was tested inferentially by employing 't' test. The result of 't' test are given in table 2.

From table 2 it is evident that the 't' value (14.39) which is greater than the theoretical value 2.36 at 0.01 level. It indicates that gain scores of Achievement in Mathematics of students belonging to experimental group and control group differ significantly. Hence the null hypothesis, 'the gain scores of experimental group is not significantly higher than that of control group' was rejected and the research hypothesis, 'the gain scores of experimental group is significantly higher than that of control group', was retained.

### Conclusion

The analysis of objective one showed that the instructional material based on LESRA Model was effective in enhancing the Achievement in Mathematics among ninth standard students.

Table 3

*Number (N), Mean (M), Standard Deviation (SD) and 't' Value of the Gain Scores of Girls of Experimental Group and Control Group*

| Group        | N  | M     | SD  | 't' value | Result                    |
|--------------|----|-------|-----|-----------|---------------------------|
| Experimental | 23 | 18.09 | 1.5 | 13.06     | Significant at level 0.01 |
| Control      | 23 | 11.49 | 1.9 |           |                           |

From table 3 it is observed that the obtained 't' value is 13.06 and it is greater than that of theoretical value 2.41 at 0.01 level. It indicates that mean scores of Achievement in Mathematics of girls belonging to experimental group and control group differ significantly. Hence the null hypothesis, 'the gain scores of girls of experimental group is not significantly higher than that of control group' was rejected and the research hypothesis, 'the gain scores of girls

### *Analysis and Interpretation of objective Two*

Then it was further analyzed using the second hypothesis, which states as:

**H1:** The gain scores of girls of experimental group is significantly higher than that of control group.

In order to test this hypothesis inferentially, corresponding to the research hypothesis a null hypothesis was formulated as:

**Ho:** The gain scores of girls of experimental group is not significantly higher than that of control group.

The null hypothesis was tested inferentially by employing 't' test. The result of the 't' test are given in the table 3.

of experimental group is significantly higher than that of control group' was retained.

### Conclusion

The analysis of objective two showed that the LESRA Model is effective in enhancing the Achievement in Mathematics among girls of standard nine. Hence the investigator concluded that the instructional material is effective in the case of girls of standard nine.

### ***Analysis and Interpretation of objective Three***

Then it was further analyzed using the third hypothesis which states as:

H1: The gain scores of boys of experimental group is significantly higher than that of control group.

Table 4

*Number (N), Mean (M), Standard Deviation (SD) and 't' Value of the Gain Scores of Boys of Experimental Group and Control Group*

| Group        | N  | M     | SD    | 't' value | Result                    |
|--------------|----|-------|-------|-----------|---------------------------|
| Experimental | 23 | 20.3  | 0.927 | 11.68     | Significant at level 0.01 |
| Control      | 23 | 14.13 | 2.14  |           |                           |

From table 4 it is observed that the obtained 't' value is 11.68 and is greater than the theoretical value 2.43 at 0.01 level with  $df = 44$ . It indicates that mean scores of Achievement in Mathematics of boys belonging to experimental group and control group differ significantly. Hence the null hypothesis that, 'the gain scores of boys of experimental group is not significantly higher than that of control group' was rejected and the research hypothesis, 'the gain scores of boys of experimental group is significantly higher than that of control group', was retained.

### **Conclusion**

The analysis of objective three showed that the LESRA Model is effective in enhancing the Achievement in Mathematics among boys of standard nine. Hence the Table 5

*Number (N), Mean (M), Standard Deviation (SD) and 't' Value of the Mean Scores of Boys and Girls of Experimental Group*

| Exp.Group | N  | M     | SD   | 't' value | Result                    |
|-----------|----|-------|------|-----------|---------------------------|
| Boys      | 23 | 21.91 | 1.88 | 4.17      | Significant at level 0.01 |
| Girls     | 23 | 19.65 | 1.8  |           |                           |

To test the research hypothesis it was converted into a null hypothesis as;

Ho: The gain score of boys of experimental group is not significantly higher than that of control group.

To test the hypothesis inferentially the 't' value was calculated and its detail are given in the table 4

investigator concluded that the instructional material is effective in the case of boys.

### ***Analysis and Interpretation of objective Four***

Then it was further analyzed using the fourth hypothesis which states as:

H1: There is a significant difference between boys and girls of experimental group on the means of scores of posttest.

To test this research hypothesis it was converted into a null hypothesis as:

Ho: There is no significant difference between boys and girls of experimental group on the means of scores of posttest.

The null hypothesis was tested inferentially by employing 't' test. The result of 't' test are given in table 5

From table 5, it is observed that the obtained 't' value is 4.17 and it is greater than the of theoretical value 2.69 at 0.01 level. It indicates that mean scores of Achievement in Mathematics of boys and girls belonging to experimental group differ significantly. Hence the null hypothesis that, 'there is no significant difference between boys and girls of experimental group on the means of scores of posttest', is rejected and the research hypothesis that, 'there is a significant difference between boys and girls of experimental group on the means of scores of posttest' was retained.

### Conclusion

The analysis of objective four showed that the mean values of posttest scores of boys is higher than that of girls. It was also found that there is significant difference between the boys and girls of experimental group on the means of scores of posttest. Hence the investigator concluded that the LESRA Model is more effective for boys.

### Educational Implications of the Study

The present study was undertaken to investigate the effectiveness of LESRA Model on Achievement in Mathematics among standard nine students. The major findings of the study and the conclusion drawn from the findings helped the investigator to frame some measures to improve the Achievement in Mathematics among secondary school students.

The investigator suggests the following implication based on the research findings:

1. The findings of the study imply that LESRA Model is more effective over the prevailing method of teaching

in enhancing the Achievement in Mathematics among the learners.

Since it is already proved that LESRA Model is effective in teaching Mathematics, it can be adopted to teach other subjects also to promote academic achievement.

2. The LESRA Model should be introduced in schools because it facilitates better understanding of the subject.
3. Teachers should train themselves to handle this strategy because it promotes interest and curiosity in the children.
4. In this approach teacher should have the freedom for constructing the design for the content have to be taught. So, the innovative ideas of the teacher also have to be implemented to the strategy to get good result .
5. The teachers and parents should provide adequate facilities and conditions to their pupil for enhancing the Achievement in Mathematics.
6. The findings of this will help curriculum planners and those who are concerned with the educational field to understand the effectiveness and necessity of the application of new teaching process.
7. It provides a broad development perspective to the education for building more experience based curriculum for primary and secondary school students.

### Suggestions for Future Research

The present study have some limitations. As the present study is not comprehensive, it requires modifications in its form and structure by further research. Hence some suggestions for further research are given below:

1. The present study can be conducted in the primary, upper primary and higher secondary classes to test the generaliability of its conclusion.
2. The study can be conducted in other subjects also.
3. This study can be extended to other districts and states.
4. Similar study can be conducted on various samples.
5. Similar study can be conducted for a longer period of time.
6. This strategy is best example for generating investigation and experimentation.

## References

- Aggarwal, J.C. (1966). *An Introduction to Educational Research*. New Delhi: Arya books and Publishing Pvt. Ltd
- Arjun, N.K. (2004). *Psychological bases of Education*. Thiruvananthapuram: Atlantic books and Publishing Pvt. Ltd.
- Aggarwal, J.C. (1985). *Theory and Principles of Education*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Best, J.W; & Khan, J.V. (2008). *Research in Education* (10th edition). New Delhi: Prentice hall of India Pvt.Ltd.
- Best, J.W; & Khan, J.V. (1999). *Research in Education*. New Delhi: Prentice hall of India Pvt.Ltd.
- Bar, A.S. (1995). *Encyclopaedia of Educational Reaearch*. Newyork: Macmillan.
- Bhattacharya, Srinibas (1996). *Foundations of Education*. New Delhi: Atlantic Publishers and Distributors.
- Chandra, SotiShivender; & Sharma, Rajendra K. (2004). *Research in Education*. New Delhi: Atlantic Publishers and Distributors.
- Coben, L.et al., (2000). *Research Methods in Education*. Routledge Felmes, London and New York.
- Dash, B.N., Dash N. (2000). *A text book of educational psychology*. Dominant publishers and distributors. New Delhi.
- Garret, H.E. (2004). *Statistics in Psychology and Education*. New Delhi: Paragon International Publishers.
- Good, C.V. (1954). *Methods of Research*. Newyork: Applteon Country Crafts Inc.
- Jonathan, S.T, Evans, B.T. (2005) *How to do research*. Psychology Press, New York.
- Khan, J.A. (2007). *Research Methodology*. New Delhi: APH Publishing Corporation.
- Kaul, L. (2005). *Methodology of Educational Research*. New Delhi: Vikas Publishing House.
- Kothari, C.R. (2005). *Research Methodology Methods and Techniques*. New Delhi: New Age International Publishers.
- Lenbug, Jeff. (2007). *Guide to Research*. New Delhi: Viva Books Private Limited.
- Lichtman, Marilyn. (2006). *Qualitative Research in Education a User's Guide*. New Delhi: Sage Publications India Pvt. Ltd.
- Mangal, S.K. (1993). *Statistics in Psychology and Education* (2 nd ed.), New Delhi: Prentice Hall OF India Ltd.
- Soman, K. (2008). *Measurement and Evaluvation in Education* (3rd ed.). Trivandrum: Calicut University.
- Singh, Y.K. & Bajpal, R.B. (2007). *Research Methodology Techniques and Trends*. New Delhi: APH Publishing Corporation.
- Vaidhya, Narendra (1996). *Science teaching the 21st century*. Deep and Deep publications, New Delhi.





## PLANNING AN INSTRUCTIONAL DESIGN: AN OVERVIEW

Dr. Lavina Dominic\*

### Abstract

*Instruction plays a significant role in education. The style of instruction plays a decisive role in learning. Several theories of instruction have evolved down the ages keeping abreast with the changing needs of the time. Instructional designers have to decide the approach to be adopted for designing the appropriate form of instruction. Instructional designs are based on the fundamental psychological principles of learning viz. Behavioural, Cognitivist, Constructivist and the learning theory of the digital era namely, Connectivism.*

**Key words:** *Instructional theory, behaviorism, cognitivism, constructivism, connectivism, etc.*

### Introduction

Education is primarily the transfer of learning from one person to another and instruction plays a vital role in this process. Instruction means the action or process of teaching, the job of a teacher: the act of instructing someone. It also refers to the activities of educating or instructing; the activities that impart knowledge and skill. Thus, we can define instruction as anything that is done purposely to facilitate learning. The better the instruction or style of instruction the better the learning. Therefore, educationists are concerned with designing ways to instruct. How to instruct people so that they may learn better? That is the question. There are several theories of

instruction that can guide one in choosing the right design for instruction.

### Instructional theory

An instructional theory identifies what instruction or teaching should be like. It offers explicit guidance on how to help people learn better and develop. They are used as teaching guidelines/tools by teachers/trainers to facilitate learning. Instructional theories encompass different instructional methods, models and strategies. Thus, they describe a variety of ways of facilitating human learning and development. Instructional theories outline strategies that an educator may adopt to achieve the learning objectives. Instructional theories are adapted based on

\* Assistant Professor of Education, St. Thomas College of Teacher Education, Pala, Kerala.

the educational content and more importantly the learning style of the students.

An instruction theory is different from a learning theory. It deals with factors before the actual act of learning and not while and after learning has taken place. It helps us create conditions that increase the probability of learning. It concerns itself with the relationship between how things are presented and how they are learned. Thus, a theory of instruction is a guide to what to do in order to achieve certain learning objectives. A learning theory describes what takes place while learning is going on and after learning has taken place.

### **Characteristics of an instructional theory**

Reigeluth (2013) suggests the following characteristics of instructional theories. Instructional theories :

- Are design-oriented. That is, they focus on attainment of specific goals in a given situation.
- Identify methods of instruction that are best suited for the goals and situation.
- Have component methods which provide explicit guidance to educators and trainers.
- Have methods that are probabilistic, that is, by following the theory's guidance in a particular situation it will increase the likelihood of learning.
- Help with decisions about what instructional methods will work best in given situations.

The products of the instructional theories are instructional designs or models. Planning of an instructional design is therefore is guided by the instructional theories.

### **Origin of instructional theories or instructional design theories**

The origin of instructional theory can be traced to the 1970s in the United States of America. It was influenced by the then three basic theories of educational thought, Behaviourism, Cognitivism, and Constructivism. With the advent of the digital age a new theory of learning for the 21st century has also evolved to suit the needs of the new age, namely, Connectivism. This theory also has influenced the instructional designs of the new informational age.

Thus, we see the instructional design is based on the psychological principles of learning: behavioural, cognitive, constructivist and connectivist. Behavioral psychology advocates repetition and reinforcement in learning material to create a "behavior" in the learner. Cognitive psychology focuses on engaging the learner's senses to create a learning process, while Constructivism emphasizes the learner's own experience and personal interpretation and finally Connectivism advocates that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks.

### **Instructional Design theories**

Instruction involves many important things including what an instructional design or product itself (instructional model) should be like, the process by which it should be designed and built, how it should be implemented, how it should be evaluated, how its effects (e.g., learning) should be assessed, what content should be instructed, how people learn, and the interrelationships

among all these kinds of knowledge about instruction.

Thus, an Instructional Design Theory is a set of design theories that pertain to various aspects of instruction. Those aspects include:

1. *what the instruction should be like*, which could be called instructional event design theory (DT), or instructional-program DT, or instructional product DT;
2. *what the process of gathering information for making decisions about instruction should be like*, which could be called instructional-analysis DT;
3. *what the process of creating the instructional plans should be like*, which could be called instructional-planning DT;
4. *what the process of creating the instructional resources should be like*, which could be called instructional-building DT;
5. *what the process of preparing for implementation of the instruction should be like*, which could be called instructional-implementation DT;
6. *what the process for evaluating the instruction should be like* (summative and formative), which could be called instructional-evaluation DT.

Of the above, Instructional-event theory is the only one that offers guidance about the nature of the instruction itself. The other five all offer guidance about what is commonly called the instructional systems design (or development) process (ISD). There are many interrelationships among these six kinds of instructional-design

theory. Obviously, they have input-output relationships with each other. However, analysis and evaluation each play a far more integrated role in the other kinds of theory. For example, analysis should be used to provide useful information in the application of all the other five kinds of instructional design theory and should be integrated with each. For example, there is a series of decisions that need to be made for planning an instructional event, including decisions about scope and sequence, instructional approach, instructional tactics, media selection, media utilization, and so forth. Each of these kinds of decisions requires a different kind of analysis at a different point in time during the planning process. So instructional-analysis theory must be integrated with instructional-planning theory. Similarly, different kinds of decisions are made during the instructional-building process, and different kinds of information are needed for making those decisions. Therefore, instructional-analysis theory must be integrated with instructional-building theory. The same applies to instructional-implementation theory and instructional-evaluation theory. In a parallel manner, evaluation should be conducted on each major decision that is made during the instructional-planning process, so instructional-evaluation theory must be integrated with instructional-planning theory. Similarly, it must also be integrated with each of the other four kinds of instructional theory. So, while it is conceptually helpful to understand that all these different kinds of instructional design-theory exist, it is essential to understand that useful guidance for practitioners must integrate all of them.

## **Planning of an instructional design**

Instructional theories guide the planning of the instructional designs or models. Therefore, instructional designs or instructional models are products of instructional theories, which in turn are related to the way we learn or in other words, the theories of learning.

Let's see the major theories of learning and their implication on instructional theories and instructional designs.

### **Behaviourism and instructional theory**

Behaviorism is a learning theory that considers learning as a process of reacting to external stimuli. The key behaviourists are Ivan Pavlov, Edward Thorndike, J.B. Watson and B.F. Skinner. According to the behaviourists learning is a formation of a connection between stimulus and response. It concentrates on the study of overt behaviours that can be observed and measured. Behaviorists view learners as passive participants and consider learning as an acquisition of new behavior. Desired behaviors can be elicited by either classical or operant conditioning. Classical conditioning occurs when a response is elicited to natural stimuli, such as Pavlov and his salivating dogs. The smell of food creates a natural response and triggers salivation. Operant conditioning occurs when a response to a stimulus is reinforced. Operant conditioning controls behavior through positive and negative reinforcement. A classic example of operant conditioning is B.F. Skinner and his Skinner box. The rat 'learned' to press the lever and was rewarded with food. The reward strengthened the behavior. Another example of positive reinforcement can be

easily seen in elementary school. Many times, students are 'rewarded' for positive behavior. The goal is to reinforce the 'good' behavior at school. Behaviourists view the mind as a 'black box'. They totally ignore the possibility of thought processes occurring in the mind while learning. Behavioral learning theory can be summarized as learning that occurs through the behavioral response to environmentally sourced stimuli. The foundation of this theory is built upon assumptions that "have little regard for the cognitive processing of the learner involved in the task".

Implications of the Behaviourist approach for the instructional design process

The Behaviorists view learners as passive participants and consider learning as an acquisition of new behavior. The implications of the Behaviourist approach and the way it influences the design process are as follows:

1. The instruction is essentially teacher led or designed. This approach is founded on specific goals and a clear path to achieve them.
2. The designer should analyze the situation and develop clear and precise learning objectives.
3. The designer should create measurable and observable learning outcomes/objectives among students.
4. The designer should conduct a preassessment of students to determine where instruction should begin.
5. The designer should create and direct manageable tasks.
6. The task should be broken down into small steps based on measurable

learning objectives.

7. There should be sequencing of instruction, that is, tasks should be arranged from simple to complex.
8. Emphasis should be on mastery learning, mastery of the early steps before progressing to the more complex ones.
9. Instructional cues can be presented to facilitate learning. Stimulus is about something that the learner needs to know – generally as a question or an instruction to complete a task, the response is the answer or the successful completion of the task. Cues can be presented to facilitate the learning needed to create the correct response – examples of the correct answer or way to do something and repetition and reinforcement lead to the correct response.
10. There should be scope for plenty of repetition, drills and practice-to strengthen stimulus-response connection
11. Reinforcement need to be given – external motivation is necessary- in the form of tangible rewards and informative feedback to improve learners' performance
12. There should be continuous assessment of the learners' performance – questions and answers- tests
13. The evaluation should consist of measuring the objectives, whether they were met or not.

To summarise, the Behaviourist approach considers learning as an acquisition of behaviour. The teacher is the active component in the learning process. It is used when the teacher aims at guiding students in mastering a set of predictable skills or

behaviors. The learner is a passive participant in the learning process. The teacher decides what is important for the learner to know and attempts to transfer that knowledge to the learner. The teacher analyzes the situation and sets a goal. Individual tasks are broken down and learning objectives are developed. Evaluation consists of determining whether the criteria for the objectives has been met. Thus, the learning package based on the Behaviourist approach is somewhat of a closed system, since although it may allow for some branching and remediation, the learner is still confined to the designer's "world".

### **Cognitivism and instructional theory**

Cognitivism is a learning theory that unlike Behaviourism focuses on the inner activity and complex mental processes such as thinking, problem solving, language, concept formation and information processing. Learning results when information is stored in the memory in an organized and meaningful manner. "The ways that learners process and apply information changes one's thoughts and internal mental structures".

The primary focus of learning is on the development of knowledge by the creation of schemas. Schema refers to how knowledge is organized in memory. Schema - An internal knowledge structure. New information is compared to existing cognitive structures called "schema". Schema may be combined, extended or altered to accommodate new information.

The more organized the schema is, the more efficient the recall of the information is when it is needed later. Schemas are like catalogs of information that can be

used to identify concepts or experiences through a complex set of relationships that are connected to one another. In short, the catalogs act like a database of knowledge for the learner. This seems to say that the brain is a big filing cabinet and it's easier to find something when it's organised alphabetically.

The theory uses the analogy of comparing the human mind to a computer. Cognitivism views learning as the input of information into short term memory, where it is coded for future recall – a sort of input-output process. Cognitive scientists believe that humans process information, receive, store and retrieve, just as computers process information. The memory system is broken into 3 stages based on this approach:

- Sensory memory
- Working memory
- Long-term memory

Information is constantly being processed by the memory system via sensory memory. Sensory memory picks up and processes the information, filtering out the nonsensical data. All extraneous information is filtered out while the information that catches the attention of the learner is passed on to working memory. Generally, the working memory stores the information for a longer period of time; if rehearsed enough times, it will essentially be sent into long-term memory.

Cognitivism views the learner as a very active participant in the learning process. Cognitivism is all about equipping learners with effective learning strategies to process the information that they are

given. Cognitivism, like behaviourism, emphasises the role that environmental conditions play in facilitating learning. Instructional explanations, demonstrations, and illustrative examples are all considered to be instrumental in guiding student learning. Similarly, emphasis is placed on the role of practice with corrective feedback. However, cognitive theories contend that environmental “cues” and instructional components alone cannot account for all the learning that results from an instructional situation. There are additional key elements that play important roles in learning. They include the way learners attend to, code, transform, rehearse, store and retrieve information. Learners’ thoughts, beliefs, attitudes and values are also considered to be valuable in the learning process.

### **Implications of the Cognitivist approach for the instructional design process**

We saw the significant characteristics of Cognitivism. Now let us see what are the implications of cognitivism on instructional design. The following are some of implications of cognitivism on the design of an instruction.

1. Cognitivism emphasizes active involvement of the learner in the learning process. Therefore, learner control, metacognitive training like self-planning, monitoring and revising techniques, etc. should be given.
2. Learners process, store, and retrieve information – therefore instruction should be planned in such a way that learners are provided information which they can process, store and retrieve.
3. Learner analysis is important to know what are the learner’s existing mental



structures. Therefore, a learning analysis should be done so as to collect details that can provide a framework for instruction, such as prior knowledge and schema.

4. Meaningful information is easier to learn. Cognitivism seems to make knowledge more meaningful by helping learners link it to existing knowledge. Therefore, learning needs to be more tailored to the learners' needs and abilities. The content should be life related.
5. Learning environments that allow and encourage students to make connections with previously learned material should be employed such as recall of prerequisite skills, use of relevant examples, analogies, etc. This will make learning faster.
6. Instructional strategies like advanced organizers, mnemonic devices, metaphors, chunking into meaningful parts, and the careful organization of instructional materials from simple to complex that enhance the storage and retrieval of data from memory should be incorporated in instruction. This will help structuring, organising and sequencing information to facilitate optimal processing. This way learners can assimilate the new matter easily with the help of these strategies.
7. Lessons should be short and focused with balance of visuals and graphics.
8. All distractions and irrelevant information should be removed so as to facilitate the processing of information.
9. Plenty of practice should be provided with corrective feedback.
10. Another aspect of cognitive theory that can be considered while planning the instructional design is the cognitive task analysis. Rather than focusing on measurable tasks, the Instructional Designer can measure non-observable and mental tasks that will be taught, such as decision making and problem-solving.

### **Constructivism**

The next learning theory that influences planning of an instructional design is Constructivism.

Constructivism is a learning theory that focuses on inquiry-based, active learning, in which learners individually construct knowledge based on their past and present experiences. Constructivists believe that learners construct their own reality or at least interpret it based upon their perceptions of experiences. So, an individual's knowledge is a function of one's prior experiences, mental structures, and beliefs that are used to interpret objects and events. Constructivism accepts multiple perspectives and maintains that learning is a personal interpretation of the world. Sharing multiple perspectives is a key component of constructivism. Another essential component for learning according to constructivism is collaboration. It ignites conceptual growth. Conceptual growth comes from the negotiation of meaning, the sharing of multiple perspectives and the changing of one's internal representations through collaborative learning. Constructivism considers self-reflection as key to all learning. Learning is non-linear, open-ended with unestablished goals. Evaluation of learning using Constructivism is difficult,

and not easily measured. Each learner is different and should be evaluated as such. Unlike Behaviourism and Cognitivism, Constructivism promotes a more open-ended learning experience where the methods and results of learning are not easily measured and may not be the same for each learner.

### **Implications of the Constructivist approach for the instructional design process**

Constructivism has impacted Instructional Design, and it is essential to understand its influence on design practice. Listed below are concepts in this theory that influence Instructional Design:

1. The Constructivist approach is open-ended - Therefore, it is necessary for the Instructional Designer to avoid a prescribed curriculum. In order to facilitate a constructivist approach, it is essential to understand the learners and their needs as the content is determined by the learner. Emphasis should be on the identification of the context in which the skills will be learned and subsequently applied, that is, learning should be anchored in meaningful contexts.
2. Previous experiences and knowledge contribute- Even though, the Constructivist approach is open-ended the constructivist teacher should have clear conceptual goals for the learners to attain from the instruction process and how the goals can be attained. The goals should also reflect high order thinking skills. The teaching and learning strategies employed by a constructivist teacher should identify and make use of the learners' pre-instructional knowledge. The instructional strategies should modify or change the learners' prior knowledge to reflect accepted ideas. This can be done by asking learners thought provoking questions that change their conceptual framework. A constructivist teacher should provide opportunities to the learners to utilize and transfer new ideas learned to new contexts.
3. Students should be actively involved in selection of learning tasks and objectives for the lessons. The classroom teacher should guide selection of learning activities to ensure it is challenging but intrinsically motivating to the students.
4. Learning should be relevant, realistic and authentic - a constructivist teacher should provide learners with opportunities to perform learning tasks within the learners' relevant and realistic environment. That is, the instruction should facilitate context and content dependent knowledge construction.
5. Teacher should serve as a facilitator of learning - teacher should collaborate with the pupils and he or she should be readily available to provide material and information support to students.
6. Learning materials should focus on bigger ideas rather than facts and students should be encouraged to follow their own interests to reach unique conclusions.
7. The constructivist instructional method requires strategies that allow the learners to be part of the knowledge creation. Therefore, collaboration, cooperation, and a multi-perspective approach should be employed to provide real life

situations. Students can develop problem solving skills through collaboration and not competition among learners.

8. Encourage reflective practice – Self-reflection is core to learning. Learning should take place through reflection.

Thus, we see that though constructivism is not a prescriptive theory of instruction, it provides explicit guidelines on how to design learning environments that foster learning

### **Connectivism**

Behaviorism, cognitivism, and constructivism are the three broad learning theories most often utilized in the creation of instructional environments. These theories, however, were developed in a time when learning was not impacted through technology. The last twenty years, technology has reorganized how we live, how we communicate, and how we learn. To understand the reality of the present situation one must know the trends of learning and knowledge acquisition in the digital age. The realities of learning and knowledge acquisition in the digital age can be summarized as follows:

- The fluidity of knowledge: In the digital age current knowledge has only half-life. That is, the time between when a piece of knowledge is introduced and when it becomes obsolete, is becoming increasingly short.
- The world's knowledge has doubled in the past decade and now doubles about every 18 months. Internet content has grown and evolved with input from individual people, businesses, and organizations all around the world. The amount of information globally is so

huge that it has surpassed the capacity of people and organizations to process or evaluate it.

- Open sources of information are now made available on the Internet by universities and research facilities.

Universities no longer control knowledge, as students can access information anytime, anywhere and do not have to rely on the university library, instructors, or even textbooks to access knowledge related to their coursework.

- Another trend is that today's students no longer stick on to the same job for the whole life. They can expect to change jobs or even professions up to six times during their lifetimes. Here, comes the importance of lifelong learning and of creating and maintaining the connections, personal, professional, and knowledge connections that are needed to remain current.
- Formal education now represents only a fraction of the learning in which any one individual engages. Informal learning occurs throughout the day via networks of colleagues, personal relationships, and multi-media.
- Technology has changed the way we approach learning and reshaped and extended the horizons of what is perceived as possible. Cognitive information processing, which was once thought to occur only in the learner, can now be performed by and/or supported by, computer technology.
- In today's world skills like knowing how to do something or the possession of factual knowledge are diminishing in importance in comparison to expertise

in finding needed knowledge. Since knowledge is fluid and increasing in quantity success depends on expertise in seeking and evaluating new information from multiple sources and media.

George Siemens (2004) advanced, Connectivism, the theory of learning that is consistent with the needs of the twenty first century. His theory takes into account trends in learning, the use of technology and networks, and the diminishing half-life of knowledge. It combines relevant elements of many learning theories, social structures, and technology to create a powerful theoretical construct for learning in the digital age. Connectivism presents a model of learning that acknowledges the tectonic shifts in society where learning is no longer an internal, individualistic activity.

Thus, we see learning has changed to a continual process in which knowledge transforms into something of meaning through connections between sources of information and the formation of useful patterns. In contradiction to traditional theories, learning can result from social interaction, implying that learning can be envisaged as connectivity, because people derive skills and competencies from forming connections with outside sources while focusing on connecting specialised information sets. In the digital world, learners must know how to seek information, on an ongoing basis, that explains and enriches their knowledge. Connectivism provides insight into learning skills and tasks needed for learners to flourish in a digital era.

The following are the major principles of connectivism :

- Learning and knowledge rest in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in non-human appliances.
- The capacity to know more is more critical than what is currently known.
- Nurturing and maintaining connections is needed to facilitate continual learning.
- The ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.
- Decision making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate that impacts the decision.

Downes (2007) states that, ‘at its heart, connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks’.

### **Implications of the Connectivist approach for the instructional design process**

In the digital age education is undoubtedly shifting “from formal, rigid learning into an environment of informal, connection-based, network-creating learning. The instructor or institution can still ensure that critical learning elements are achieved...while the links and connections are formed by the

learners themselves” (Marhan, 2007 as cited in Zarb, L. 2015). It is up to teachers to be the ones to implement such a learning theory in the classroom. Let us see the implications of the theory in designing an instruction.

1. Instruction should be designed so as to provide the initial learning environment and context that brings learners together. Also, learners should be helped to construct their own personal learning environments so that they can connect to ‘successful’ networks. This will make learning occur automatically through exposure to the flow of information and the individual’s autonomous reflection on its meaning.
2. Instruction should incorporate teaching methods that are collaborative and take on an integrated style. This is more conducive to the connected global society. With the students having all the information and answers a fingertip away, by using networking sites such as blogs, facebook, twitter and so on, one will create a learning community which is continually learning through continuous dialogue and resources.
3. The students should be given complete independence to connect with their peers and other like-minded people in order to gain the most accurate information. The teacher would provide expertise and guidance to students, but would not direct their learning. Teacher should be like a custodian, directing learners to resources or connections they might not have considered in exploring the topic of a course.
4. Instruction should provide opportunities for students to search for diverse

views of the same idea, using multimedia and multiple sources; share the new connections they made and what they learned from them with other learners and the teacher; and create knowledge content that can be reused.

5. Students should be given chances to experiment with web services and tools that might enable learning.
6. Students should use, publish and share resources through blogs, wikis, photo and video sharing sites.
7. Encourage students to use the web for scholarly resources – being critical and selective, and attributing sources.
8. Assign student activities that enable effective use of media to report process and, where appropriate, outcomes.

## Conclusion

We have gone through the various learning theories that help planning of an instructional design. We understand that instruction is strongly dependent on the theories of learning. Also, instruction depends on the objectives of teaching and learning, nature of content, and learning style of the students. Above all learning is influenced by the changing needs of the time. The instructional designer has to decide the approach to be adopted for designing the appropriate form of instruction.

## References

- <https://www.vocabulary.com/dictionary/instruction>
- <https://www.merriam-webster.com/dictionary/instruction>
- [https://en.wikipedia.org/wiki/Instructional\\_theory](https://en.wikipedia.org/wiki/Instructional_theory)

- <http://www.appliedidt.com/blog/2013/07/03/instructional-theory-versus-learning-theory/>
- <https://pdfs.semanticscholar.org/2ad3/6b53c67f13f72bf862e6734aa67a99826746.pdf>
- Instructional- Design Theories and Models  
Volume III - Semantic Scholar
- <https://pdfs.semanticscholar.org/2ad3/6b53c67f13f72bf862e6734aa67a99826746.pdf>
- <https://www.mindtools.com/blog/corporate/principles-instructional-design/>
- <https://etad.usask.ca/802papers/mergel/brenda.htm#Cognitivism>
- <https://elearningindustry.com/learning-theories-instructional-design-implications>
- <https://elearningindustry.com/adult-learning-theories-on-instructional-design-implications-3>
- <https://www.shiftelearning.com/blog/bid/345615/A-Quick-No-Nonsense-Guide-to-Basic-Instructional-Design-Theory>
- [http://www.psychotron.org.uk/newResources/approaches/AS\\_AQB\\_approaches\\_BehaviourismBasics.pdf](http://www.psychotron.org.uk/newResources/approaches/AS_AQB_approaches_BehaviourismBasics.pdf)
- <https://www.shiftelearning.com/blog/bid/345615/A-Quick-No-Nonsense-Guide-to-Basic-Instructional-Design-Theory>
- <http://elearningnews.edublogs.org/2007/03/23/all-about-behaviorism-cognitivism-constructivism-comparing-critical-features-from-an-instructional-design-perspective-ertmer-newby-1993/comment-page-1/>
- <http://article.sciencepublishinggroup.com/html/10.11648.j.ijssedu.20170501.11.html>
- [http://www.itdl.org/journal/jan\\_05/article01.htm](http://www.itdl.org/journal/jan_05/article01.htm)
- <http://usir.salford.ac.uk/2569/1/ConnectivismEdDev.pdf:public>
- <https://www.tandfonline.com/doi/abs/10.1080/17496896.2010.556478>
- Education, Knowledge and Economy  
Volume 4, 2011 - Issue 3: Meeting the Challenges of Diversity, E-Learning and Competences  
Journal homepage
- Connectivism as learning theory: the force behind changed teaching practice in higher education
- Nalize Marais
- <https://www.tandfonline.com/author/Marais%2C+Nalize>
- <https://opentextbc.ca/teachinginadigitalage/chapter/3-6-connectivism/>
- [http://m.www.na-businesspress.com/JHETP/ForoughiA\\_Web15\\_5\\_.pdf](http://m.www.na-businesspress.com/JHETP/ForoughiA_Web15_5_.pdf)
- <https://larastecheduc.weebly.com/blog/what-are-the-implications-of-connectivism-for-teaching-with-technology-in-the-classroom>
- What are the implications of connectivism for teaching with technology in the classroom?
- doi: 10.5812/ijvlms.10030.
- Connectivism: Implications for Distance Education
- Seyyed Kazem Banihashem, Khadijeh Aliabadi
- Connectivism: a network theory for teaching and learning in a connected World - Bell, F
- <http://usir.salford.ac.uk/2569/>





## EFFECTIVENESS OF GLOGSTER-EDU TO ENHANCE ACHIEVEMENT IN ENGLISH IN UPPER PRIMARY SCHOOL STUDENTS

Dr. Abdul Rasheed Poozhithara\*  
Dhanya V\*\*

### Abstract

*Educational technology is a systematic and organized process of applying modern technology to improve the quality of education. The incorporation of ICT into the instructional methodology and deliver systems in education will enhance the teaching and learning. The Glogster-EDU is a great tool for making teaching and learning of English language easy, interactive and enjoyable. The present study investigates the effectiveness of Glogster-EDU to enhance achievement in English in upper primary school students. The study was carried on a representative sample of 80 standard VII Pupils, comprising two divisions (40 pupils each) as the Control and Experimental group respectively. Tools used for the study are Lesson Transcript (Glogster model and Constructivism model) and an Achievement Test in English. The study reveals that the Glogster-EDU platform was more effective when compared with Constructivism method (activity method) in enhancing Achievement in English among upper primary school students. In the light of the results of the study, a teacher can make use Glogster-EDU as a best means to improve the teaching-learning process among upper primary classes*

**Key word:** Glogster-EDU, Achievement, Upper Primary, etc.

### Introduction

The concept of Multimedia is based on the Cognitive Theories and is completely learner oriented. In multimedia technology, different audio-visual mediums are used sequentially. The synchronization of different media will make the instruction more

efficient. Moreover, it caters the individual differences of the learners. Working with digital materials, e-learning, hands-on education, on demand, personalized tuition are new forms of education today by using technology. Today, there is a varied educational context which includes technical

\* Assistant Professor, Department of Arabic, Govt. College of Teacher Education, Kozhikode, Kerala

\*\* M.Ed Student, Govt. College of Teacher Education, Kozhikode, Kerala

resources and devices that will enhance the learning process.

Glogster is a cloud-based platform for creating presentations and interactive learning. A platform that allows users, mostly students and educators to combine text, images, video, and audio to create an interactive, Web-based poster called Glogs on a virtual canvas. Glogster facilitates the conveyance of social information in many different fields such as art, music, photography. Users also have access to a library of engaging educational content posters created by other students and educators worldwide. Glogster enables interactive, collaborative education and digital literacy. Glogster was founded in 2007 by Martin Santorcl, Patrik Prepsl, Roman Smola, Stanislav Šrámek and Tomáš Plojhar, with offices in Prague and Boston. They launched the first platform, Glogster.com also in 2007. This platform was initially promoted as a visual network, allowing users to express themselves via “graphic blogs” or “glogs”. However, in response to needs of educators incorporating Glogster into lessons and assignments, Glogster-EDU (or [edu.glogster.com](http://edu.glogster.com)) was set up alongside Glogster.com in 2009, offering a more secure and educational specific platform. Glogster-EDU, has an annual subscription cost but gives educators a dashboard to provide instructions, templates and a private area for their class.

Glogster-EDU is used as a learning and teaching tool to foster higher order thinking skills. The use of Glogster, motivates and excites students to do their work. Teaching and learning become effective when visualization, motion and text are

synchronized into one source of knowledge and computing power is used to transform passive learning into interactive, dynamic learning. The most important benefit of this technique is that this gives the option to personalize the style of studying and make it more effective. Glogster is part of a new emerging literacy practice found outside the language classroom. Blogs, Blogging, and Bloggers are terms quite familiar to many students and teachers. Glogster is similar to these blogs but allows dynamic texts with multimedia. Reading and comprehending such multimodal texts is integral part of honing multiliteracy skills.

### **Need and significance of the study**

Teaching of English has a vital role in the educational scenario of India. English helps us to adjust with modern westernized social surroundings. In the rapidly changing world, the demand for quality in all walks of life is on the increase. Language learning is not just a matter of acquiring the skills of LSRW. But it consists of developing a communicative competence, where these skills are often used in an integrated manner along with several other abilities. A true educationist, a dedicated teacher has always endeavoured to take education to the next level through researching and devising means to effectively transmit knowledge and more importantly imbibe wisdom.

The goal “Education and equal opportunity” will only be a dream if the problems related to regular classrooms are not tackled. A teacher cannot reach each and every student in a heterogeneous group. The time period is too short and the teacher is unable to teach each one according to

their pace and level of understanding. New technologies help to improve and innovate English language learning and vitalize teaching-learning process. As a result of the major explosion of Internet, educational technologies have widely developed and users fully benefit, according to their expectations, from the improvement of the educational process. The studies and researches conducted by V Anithadevi (2019) and M. Ghada Awada and H. Kawthar Faour (2018) showed that, the usage of the Glogster-EDU educational platform develops necessary competencies, such as, communication skills, creativity and intellectual curiosity, critical and systematized thinking, information and media skills, collaborative and interpersonal skills, problem identification, formulation, and solving and social responsibility. If conventional verbal information presentation is replaced by these advanced technology which appeals to learners multiple modalities, increased learning will be invariably the result.

### **Title of the study**

The present study is entitled as 'Effectiveness of Glogster-EDU to enhance Achievement in English in Upper Primary School Students'.

### **Glogster-EDU**

Glogster is a cloud-based platform for creating interactive multimedia posters-complete with text, images, graphics, audio and videos. Glogster-EDU is the educational site of Glogster. (<https://en.wikipedia.org/wiki/Glogster>). In the present study Glogster-EDU is used as a 2.0 educational tool which make use of their multi sensation to enhance achievement in English.

### **Variables selected for the study**

In the study Glogster-EDU is taken as the Independent Variable and the Achievement in English is considered as the Dependent Variable.

### **Objectives**

The objectives of the study are:

1. To compare the mean pre-test scores of control group and experimental group.
2. To compare the mean pre-test and post-test scores of control group.
3. To compare the mean pre-test and post-test scores of experimental group.
4. To compare the mean post-test scores of control group and experimental group.
5. To compare the mean gain scores of the control group and experimental group.

### **Hypotheses**

The hypotheses of the study are:

1. There exist a significant difference in the mean pre-test scores of control group and experimental group for the total sample.
2. There exist a significant difference in the mean pre-test and mean post-test scores of control group.
3. There exist a significant difference in the mean pre-test and mean post-test scores of experimental group.
4. There exist a significant difference in the mean post-test scores of control group and experimental group for the total sample.
5. There exist a significant difference in the mean gain scores of the control group and experimental group for the total sample.

## Methodology

The present study has been conducted employing the Quasi Experimental design. The design used in the study was the Pre-test – Post-test Non Equivalent Groups Design. The control group was taught through constructivism method and the experimental group through Glogster-EDU platform.

## Sample

The study was conducted on a representative sample of 80 standard VII Pupils, comprising two divisions (40 pupils each) as the Control and Experimental groups.

## Tools

The investigator used the following tools for the study.

1. Lesson transcripts based on Constructivist Method of teaching.

2. Lesson transcripts based on Glogster-EDU. (Adopted model)
3. Achievement test in English for standard VIIth in the selected topics (Pre-test & Post-test) .(Dhanya& Abdul Rasheed)

## Statistical Techniques

1. Test of Significance of Difference between Means
  - I. Large Dependent
  - II. Large Independent
2. Effect size Cohen's d.

## Results and Discussions

The results of the Mean Difference Analysis conducted for the comparison of Mean Pre-test scores on Achievement in English of the control group and experimental group are presented in Table 1.

Table 1

*The Mean Pre-test scores on Achievement in English of the control and experimental group.*

| Variable      | Group              | N  | Mean    | SD      | t value |
|---------------|--------------------|----|---------|---------|---------|
| Pre testvalue | Control group      | 40 | 12.6250 | 4.87109 | 0.404   |
|               | Experimental group | 40 | 12.1750 | 5.09845 |         |

From the table, it is clear that, the obtained t value = 0.404 is lesser than the table value of t = 1.990 at 0.05 level of significance and 78 degrees of freedom found to be not significant. This shows that, there is no significant difference in pre test scores between control and experimental groups initially.

Table 2

*The Mean Pre-test and Post-test scores on Achievement in English of the control group.*

| Sl.No | Control Group | N  | Mean   | SD    | 't' value |
|-------|---------------|----|--------|-------|-----------|
| 1.    | Pre-test      | 40 | 12.625 | 4.871 | 5.036     |
| 2.    | Post-test     | 40 | 13.900 | 4.840 |           |

The results of the Mean Difference Analysis conducted for the comparison of Mean Pre-test and Post-test scores on Achievement in English of the control group are presented in Table 2.

From the table, it is clear that, the obtained t value = 5.036 greater than the table value of  $t=2.0226$  at 0.05 level of significance and 39 degrees of freedom which is found to be significant, which means that there is a significant difference from pre test values to post test values among control group.

Table 3

*The Mean Pre-test and Post-test scores on Achievement in English of the experimental group.*

| Sl.No | Control Group | N  | Mean   | SD    | 't' value |
|-------|---------------|----|--------|-------|-----------|
| 1.    | Pre-test      | 40 | 12.175 | 5.098 | 13.576    |
| 2.    | Post-test     | 40 | 16.950 | 6.751 |           |

From the table, it is clear that, the obtained t value = 13.576 greater than the table value of  $t=2.0226$  at 0.05 level of significance and 39 degrees of freedom which is found to be significant, which means that there is a significant difference from pre test values to post test values among experimental group.

Table 4

*The Mean Post-test scores on Achievement in English of the control and experimental group.*

| Variable        | Group              | N  | Mean    | SD      | t value |
|-----------------|--------------------|----|---------|---------|---------|
| Post test value | Control group      | 40 | 13.9000 | 4.84000 | 2.322   |
|                 | Experimental group | 40 | 16.9500 | 6.75183 |         |

From the table, it is clear that, the obtained t value = 2.322 is greater than the table value of  $t=1.9908$  at 0.05 level of significance and 78 degrees of freedom found to be significant, this shows that there is a significant difference in post test values between the control and experimental group

Table 5

*The Mean Gain scores on Achievement in English of the control and experimental group*

| Variable   | Group              | N  | Mean   | SD      | t value | df | Sig value | Effect size | Cohen's category |
|------------|--------------------|----|--------|---------|---------|----|-----------|-------------|------------------|
| Gain score | Control group      | 40 | 1.2750 | 1.60108 | 8.077   | 78 | .000      | 1.829       | large            |
|            | Experimental group | 40 | 4.7750 | 2.22443 |         |    |           |             |                  |

The results of the Mean Difference Analysis conducted for the comparison of Mean Pre-test and Post-test scores on Achievement in English of the experimental group are presented in Table 3.

The results of the Mean Difference Analysis conducted for the comparison of Mean Post-test scores on Achievement in English of the control group and experimental group are presented in Table 4.

The results of the Mean Difference Analysis conducted for the comparison of Mean Gain scores on Achievement in English of the control group and experimental group are presented in Table 5.

From the table, it is clear that, the obtained t value =8.077 is greater than the table value of  $t=1.9908$  at 0.05 level of significance and 78 degrees of freedom found to be significant, this shows that there is a significant difference in gain scores between control and experimental groups.

Based on Cohen's categories of small, medium and large effect sizes, the analysis revealed that effect size is 1.829 indicate that a large effect can be seen with the new strategy in enhancing the achievement in English score.

### Findings & Conclusions

The result of the study reveals that the difference between the pre test score of the Achievement in English of control and experimental group showed that the two groups do not vary significantly. It indicates that the two groups were almost equivalent initially. Among the mean comparisons, the values were found significant. Only the mean comparison between the Pre-test scores of Control Group and Experimental Group was not found to be significant. The values obtained by the test of significance of differences between means of Control Group and Experimental Group for the Post-test and the Gain scores for the total sample were found to be significant. From the analysis, it is also evident that the achievement of the Experimental group is significantly higher than that of control group after treatment. If conventional verbal information presentation is replaced by these advanced technology which appeals to learners multiple modalities, increased learning will be invariably the result. So it can be concluded that the Glogster-EDU is

highly effective in enhancing achievement in English among upper primary students.

Glogster-EDU helps to deliver a system that combines instruction and learning. This lies at the core of language learning technology because it can integrate audio visual capabilities with material presentation. It involves the learners actively into the learning process and promotes internal reflections. Glogster-EDU is the leading global education platform for the creative expression of knowledge and skills in the classroom and beyond. Glogs can be used to show expression using pictures, videos, and sounds. It also teaches concepts in a more creative and technologically innovative way.

From the study it was found that Glogster-EDU platform was more effective when compared with Constructivism method (activity method) in enhancing Achievement in English among upper primary school students. So the investigator hopes that in the light of the results of the study, a teacher can make use of Glogster-EDU as a best means to improve the teaching-learning process among upper primary classes.

### References

- Anithadevi, V. (2019). *Exploring the Effectiveness of Glogster in Language Learning*. Retrieved from <https://doi.org/10.3999/ijet.v14i11.10217>.
- Awada, G. M., & Faour, K. H. (2018). *Effect of Glogster and Co-operative Learning Differentiated Instruction on Teachers' Perceptions*. *Teaching English with Technology*, 18(2), 93-114.
- Bhatia, K.K. (2003). *Teaching and learning English as a foreign language*. New Delhi: Kalyani Publishers.
- Chaudhary, M. (Ed.). (2012). *Methodology*



- of teaching English*. New Delhi: Dorling Kindersley (India) Private Limited.
- Cutter, M. (2015). *Using technology with English Language Learners in the classroom*. Education Masters. Paper 313.
- Martinez-Alba, G., Cruzado-Guerrero, J., & Pitcher, S. (2014). Glogsters and other motivating technology: A multiple case study of English Learners. *Reading Matrix*:14(2), 253-262.
- Mary, Olga, M. (2015). Effectiveness of interactive multimedia for enhancing the achievement in English of secondary school students. Unpublished M.Ed Thesis, University of Calicut.
- Nimmy, R. (2013). *Effectiveness of multimedia language games on achievement in English language skills of standard VII<sup>th</sup> students*. Unpublished M.Ed. Thesis, University of Calicut.
- Sonkamble, C.P. (2016). *The professional development in teacher education institutes through multiple web tools*. Retrieved from <https://www.worldwidejournals.com/global-journal-for-research-analysis>.
- Yucel, U.A. (2016). The Perceptions of pedagogical formation students about Web 2.0 tools and educational practices. *Education and Information Technologies*, 16(4), 1571-1585.



## HOW DO THE INTERNSHIP IN B.Ed COURSE BENEFICIAL FOR PROFESSIONALIZING THE PROGRAMME?

Dr Joseph Kacharayil\*

### Abstract

*The School Internship Programme forms an integral and important component of B.Ed. programme. The present study examines how does the Internship in B Ed Course beneficial for professionalizing the teacher education programme. The Information Schedules were filled up by 48 B.Ed students while pursuing school internship programme in Kozhikode, along with interviews and diary accounts. An informal discussion was conducted with mentor, class teacher, principal/headmaster, parents, peers and teacher educators to supplement the information gathered by other means. The study mainly yielded information related to importance of Familiarization with the school atmosphere, Importance of Curricular Content and Pedagogic Practices, Knowledge of activity based group work for effective classroom interaction, Developing and maintaining resources, Reflective Journals for Introspection, Strengthening teaching skills through Supervisory support, Reflection session and maintaining a positive attitude for improvement, which is an essential component for the success of a student as a professional teacher. Internship programme provides the student teacher, the opportunity to practice what has been learned and act as a platform to enrich his or her academic and professional growth as a teacher. The learning programme would be effective only under the Supervisory support of the teacher educator.*

**Key words:** Internship, Professionalize, Curricular content, Pedagogic Practices, etc.

### Introduction

School Internship in Teacher Education programme is a part of the curricular area of Engagement with the Field envisaged with a broad perspective which ensures the moulding of prospective teachers professionally. It provides them a practical opportunity to develop professional

capacities and skills, true understanding of the teaching profession and future prospects of the working conditions within the profession. During the internship student teachers work as regular teachers and participate in all school activities, including planning, teaching and assessment, through

\* Associate Professor, Department of Natural Science, Government College of Teacher Education, Kozhikode, Kerala. Mob: 9446441548.

interaction with school teachers, community members and children. It should be aimed at meaningful and holistic engagement with learners and the school. The student teacher gets enough opportunity for internalising a lot of classroom experiences, community experiences through active involvement in the internship programme. "The enhanced duration of internship implies that tremendous amount of resources shall be required in terms of money, time and efforts and therefore these will have to be utilised in a planned and systematic manner to ensure successful implementation of internship"(NCTE 2016)

### **Need and Significance of the Study**

Since extended internship has been introduced as a major breakthrough in the teacher education programmes in India, it is expected to bring forth teachers of higher quality. It is accepted and implemented by all the universities in India. As this is a linking programme which maintains a connection with the actual teaching learning situations and the training institutions, it helps the teacher trainees to develop and enhance their skills related to teaching profession. It is incorporated in the teacher education programme as a method of work based learning and it follows NCTE guidelines to ensure professional training for the aspirant teachers (Chakrabarty, 2016). Another important fact regarding internship programme is that the extended period itself is a challenge for all the stakeholders and it requires careful planning and organisation (Chowdhury, 2018).

### **Objectives of School Internship are:**

1. Acquire the skills to transact the subject matter in accordance with the accepted principles of learning and teaching and in tune with the needs and interest of the children.
2. Develop required skills to teach in an inclusive classroom.
3. Use different activity based and stage specific learning methods and strategies in the class rooms.
4. Incorporate the components of ICT in classroom transaction.
5. Learn about school activities, scheme and programmes and their impact on children.
6. Utilize the community resources for meaningful partnership between school and community.

During the school-internship the student teacher is expected to observe classroom teaching of mentors/ peers, to get insights into student behaviour, instructional practices, student learning, learning environments and classroom management.

Student teachers' tasks during Internship are:

1. Observing classroom teaching of mentors/ peers,
2. Undertaking classroom-based research projects.
3. Developing and maintaining resources in the Internship schools.
4. Administering diagnostic tests, identifying learning difficulties and provide remediation.

5. Preparation of Lesson Plans and Unit Plans.
6. Conducting case studies/action researches.
7. Organizing curricular and co-curricular activities.
8. Preparation and administration of Achievement tests with quantitative and qualitative analysis of results.
9. Maintain a daily reflective journal.
10. Beyond the class activities in the school
11. Organise innovative programmes
12. Daily diary

Each intern has to compulsorily take part in all the above activities and prepare a detailed report of it and submit in the institution for both internal and external evaluation.

After the implementation of any programme it is necessary that its fruitfulness must be studied in detail in order to find out whether its objectives are attained or not. Especially in the case of internship, as it needs vast amount of resources, such an analysis is of utmost importance. Moreover, it may affect the usual academic practices in the schools which in turn affect the learners and their experiences. Hence, it is indeed a topic to study whether this extended internship programme helps student teachers to excel in their future profession. There are not much studies conducted in Kerala regarding the professionalizing element of Internship programmes. In such a context the present study is an attempt to evaluate it in terms of its capacity to professionalize the teacher education programmes.

## **Objectives of the study**

To explore the School Internship programme in two year B Ed course with a view to make it beneficial for professionalizing the Programme.

## **Methodology**

The present study was conducted using a qualitative research model. An Information Schedule was filled up by 48 students who had undergone the school internship programme in Kozhikode. It includes interviews and diary accounts. An informal discussion was conducted with stake holders such as mentor, class teacher, principal/headmaster, parents, peers and teacher educators to supplement the information gathered by other means.

## **Results and Discussion**

Student teachers are engaged in the school internship programme because it is a compulsory curricular component. They were required to prepare and submit the specified records and other documents before the practical examination. Hundred percent student teachers opined that they could successfully prepared and submitted the task and assignments in the core subjects and optional subjects, course based practicum and tests because it is a compulsory component in the curriculum. The details of data gathered from the student teachers related to school internship programme are presented in the table 1.

Table 1

*Response of student-teachers related to school internship programme*

| Sl No | Educational Activities and Programmes                                               | Assessment Indicators                  | Yes |       |
|-------|-------------------------------------------------------------------------------------|----------------------------------------|-----|-------|
|       |                                                                                     |                                        | N   | %     |
| 1     | Familiarization with school atmosphere                                              | Initiatory School Experiences          | 48  | 100   |
|       |                                                                                     | School Internship                      | 48  | 100   |
| 2     | Curricular Content and Pedagogic Practices                                          | Theoretical knowledge                  | 20  | 41.67 |
|       |                                                                                     | Practical experience                   | 12  | 25    |
| 3     | Activity based group work for effective classroom interaction                       | Knowledge of group activity            | 21  | 43.75 |
|       |                                                                                     | Class room experience                  | 9   | 18.75 |
| 4     | Developing and maintaining resources                                                | Improvised learning materials          | 11  | 22.91 |
|       |                                                                                     | ICT related artifacts                  | 34  | 70.83 |
| 5     | Innovative programmes organized                                                     | In the classroom level                 | 21  | 43.75 |
|       |                                                                                     | In the school level                    | 27  | 56.25 |
| 6     | Action Research Conducted                                                           | Individually                           | 6   | 12.5  |
|       |                                                                                     | Group wise                             | 42  | 87.5  |
| 7     | Co-curricular Activities/ Utilizing Library Resources                               | Co-curricular activities of the school | 48  | 100   |
|       |                                                                                     | Utilizing library resources            | 12  | 25    |
| 8     | Beyond the class activities for meaningful partnership between school and community | Monitoring student programmes          | 14  | 29.17 |
|       |                                                                                     | Participation in organising programmes | 48  | 100   |
| 9     | Strengthening teaching skill through supervisory support                            | College level before internship        | 48  | 100   |
|       |                                                                                     | School level during internship         | 48  | 100   |
| 10    | Reflective Journals for introspection                                               | Daily diary                            | 48  | 100   |
|       |                                                                                     | Reflection note                        | 16  | 33.33 |

**Familiarization with school atmosphere**

School Acclimatization Programme is organised during the first year to familiarize the student teacher with the school atmosphere and to support better understanding of schools and in preparation of Internship. The sole purpose of this Initiatory school experience is to provide the student-teacher an opportunity to have primary experiences with the functioning of the school. One week in school is intended to acclimatize student teachers to the school and its environment, understanding of children, teaching-learning

process and school dynamics. Observation of lessons of senior teachers, meeting the students informally to learn their background and interest in learning, to see the learning facilities in the school, observing the social climate in the school, etc are some of the activities to be undertaken during this period. Each student-teacher has to engage lessons individually or as shared practice. Understanding the Internship, school and the community around helps the student teacher to internalise the main features of the professional practices in teaching.

Hundred percent of the student teachers opined that they were familiarized with school atmosphere during initiatory school experience and school internship enabled them to perform well as teachers in the schools.

### **Importance of Curricular Content and Pedagogic Practices**

The school internship is designed to enable the student-teachers to connect theory to practice. The internship programme helps to provide the student teacher with the opportunity to undergo a meaningful experience as a practitioner. Pedagogic practice implies that the use of various activities in the class room for effective interaction. Only 41.67 % of student teachers have enough theoretical knowledge about Curricular Content and Pedagogic Practices and only 25% of them have practical experience in pedagogic practices. Sufficient Knowledge of curricular content and pedagogic practices are essential for choosing appropriate design, organize suitable activities and transact the content meaningfully to the learners in the classroom.

### **Knowledge of activity based group work for effective classroom interaction**

In the classroom the students need to actively participate in group activities and encourage other pupils' participation in all learning process. Tasks are usually to be completed by the learner within the classroom interaction time. Individual and group assignments are to be prepared on selected topics as part of their studies. Activity based group work for classroom interaction such as Group discussion, Debate, Drawings, Report analysis, Note

making, Worksheet completion, Storytelling, Completing the puzzle, Diagram/picture analysis, Labelling the diagram, Process of experimentation and observation, Experimenting and procedure writing, Table completion, Completion of diagram, Completion of Ven diagram, Comparison, Introducing /familiarising a newspaper report, Observing permanent slides, Making observation report, Video observation, Documentary, Observation , Grouping and table preparation, Analysis of reading report, Flowchart making, Worksheet assessment, Taking notes/preparing short notes, Chart/ model observation, Experiments, Projects, Preparation of Science album or Picture album, Science journal reading, etc need to be initiated by the student-teacher. 43.75% of the student teachers opined that they have sufficient knowledge of activity based group work for effective classroom interaction 18.75 % of them have classroom experience in conducting group activity during classroom transaction. Majority of the students do not have enough knowledge of activity based group work. The Knowledge of activity based group work for classroom interaction is important for professionalizing the programme.

### **Developing and maintaining resources**

Teaching - learning resources are the core of any teaching-learning process. There is a need for developing learning resources for quality enhancement in the teaching-learning process So the teacher should identify the apt one necessary for a particular content, locate the point at which it can be opted. The student teacher will plan and develop it in advance, maintain the continuity without



disturbing the flow of learning. 22.91% of the student teachers opined that they have involved in developing improvised learning materials for their classroom 70.83% of the student teachers had developed ICT related artifacts for their curricular content transaction. For ensuring quality of curricular input a student teacher should develop and maintain suitable teaching–learning resources and use it during curricular transaction.

### **Innovative programmes to be organized for fostering creativity**

As a part of school internship programme student teachers should get engage in encouraging the students to explore, research and use all the tools to uncover something new. It involves a different way of looking at problems and solving them. The process helps students to develop their creativity and problem solving skill. It can be in the form of setting up some programmes like awareness talks for selected group of students, symposiums, workshops, exhibitions by ensuring the engagement of students. Student teachers should also have to organize subject specific club activities such as science club, literature club etc. They have to help other teachers in organizing and executing fairs and festivals in the schools which involves guiding school students in their particular activities. This will also be of great help when they enter into the teaching profession in the future. 43.755% of the student teachers opined that they organised Innovative programmes individually in the classroom level 56.25 % of them organised Innovative programmes in the school level as group work.

### **Action Research for inculcating aptitude in research among the interns**

In schools, action research refers to a wide variety of investigations and analysis to diagnose problems and weaknesses. It can be organizational, academic or instructional. It can be any problems related to the teaching of subjects, difficulties faced by the students etc. Here the student teachers have to identify a problem and study it by collecting data and organizing, analyzing and interpreting it. Finally develops a plan of action and implement it. Only 12.5% of the student teachers had done action research individually and 87.5% of them carried out action research in group wise. Doing a research oriented activity in the classroom level or at the institutional level initializes the student teachers towards a research oriented professional practice in their career. This will help them to solve any problems in their professional life in a scientific way.

### **Beyond the class activities for linking curricular and co-curricular activities for desirable learning outcome**

As a part of school internship programme student-teachers are expected to get engaged in certain activities beyond the classroom in the Intern school like lab cleaning, club activities, participation in organizing programmes like quizzes, seminars etc. The role of teaching professional is far beyond the four walls of the class room. This fact has to be realized by the interns for developing a more comprehensive outlook towards their profession. The internship programme is a sure fire way for achieving this goal since the student-teachers have to take part in almost all the co-curricular activities

of the school during the six months of the internship. Hundred percent of the student teachers opined that they were actively participated in the co-curricular activities of the school and participated in organising various programmes in the school. Only 25% opined that they have utilising library resources during their internship and 29.17 % of them involved in monitoring student programmes at the school.

### **Reflective Journals for introspection**

The student-teachers are expected to record their classroom and school experiences, observations and conclusions regarding all the activities undertaken during internship. For this the student teacher is expected to maintain a daily reflective journal. It includes a brief description of how the class was conducted, how learners responded, reflective statements about his preparedness for the class, responses to learners' questions, capacity to include learners sharing of their experiences, responses towards their errors, difficulties in comprehending new ideas and concepts, issues of indiscipline, organization and management of group, individual and group activities etc. Hundred percent of student-teachers opined that they had been maintaining daily diary for recording day to day events. 33.33% of them opined that they had been keeping reflective note for improving teaching learning activity during school internship programme. Exploring the reflective journals helps the intern for introspection of themselves and thereby leading to their professional development. For any professional, reflective practices help them to reach at higher levels.

### **Strengthening teaching skill through supervisory support**

The assessment of the student teacher's performance and achievements at different stages during the school internship will be required for certification purposes. The supervisory support from the faculty in the form of subject supervision helps the student teacher in the capacity building process. Continuous observation and feedback are essential for improving the teaching skill of the student teacher. The subject teachers of the school, teacher educators from the colleges of teacher education have to observe the lessons and provide feedback and reflections of student-teachers' performance. This also is helpful in developing the professional competencies of the student teachers. Hundred percent of the student-teachers opined that they have got supervisory support for Strengthening teaching skill at the college level before the internship and school level during the internship.

### **Reflection session and maintaining a positive attitude for Improvement**

Reflection session helps to assess the performance of student teachers. Sharing of experiences related to school initiatory programme and internship is very important as it is a way towards examining things in different angles. This promotes reflection and introspection which eventually leads to correction and refinement. These two processes of correction and refinement have a significant role in the professional development. Thus sharing of experience can modify/ regulate interns' teaching and associated activities. It improves

teaching competencies and helps for capacity building. All these prepare student teachers to take on all the responsibilities demanded by the teaching profession.

### Suggestions

1. The student-teachers shall be internalized the syllabus for acquiring the basic knowledge about the teaching skill which helps in professionalising the course.
2. Read and familiarise the Text book, handbook/sourcebook thoroughly for forming a base knowledge of the subject at each level.
3. Stay tuned with additional knowledge and advanced knowledge of the subject for providing clarifications where ever necessary.
4. Participation in discussion and other interactions proves strong knowledge of the theoretical base in the topic.
5. Regular diagnosis of learning difficulties and develop suitable strategy for proper remediation
6. Maintain good rapport with learners and help them to build up confidence for the profession.
7. For enriching teaching profession with research orientation student teachers should be engaged in Research and empowered in the process of research.
8. Developing and maintaining resources for ensuring quality input and thereby maximize the learning outcomes.
9. Come up with innovative ideas and programmes that can fit within the internship programme, which would help in developing decision making abilities and cater problem solving abilities among student-teachers.

All these steps will ensure a systematic and effortless execution of the internship programme.

### Conclusion

The student teachers have got enough opportunity for internalising a lot of classroom experiences, community experiences through active involvement in the internship programme. This learning programme is effective only under the supervisory support of the teacher educator. The Internship will act as an academic programme to incorporate the ability to integrate knowledge and skills in the teaching learning process. So each intern should actively participate in all the programmes and make it beneficial for professionalizing the course. A wholehearted participation of all the stakeholders is necessary for achieving the goals of the internship, especially that of creating a professional outlook among the prospective teachers.

### References

- School Internship: Framework and Guidelines (2016) National Council for Teacher Education, New Delhi. [www.ncte-india.org](http://www.ncte-india.org)
- Chakrabarty, D. (2016). Implementation of Internship in 2 Year B.Ed. Course – A Challenge or Routine Task. *IRA International Journal of Education and Multidisciplinary Studies* (ISSN 2455–2526), 3(3).doi:<http://dx.doi.org/10.21013/jems.v3.n3.p18>
- Rita Chowdhury(2018)Extended internship of two year B.Ed curriculum: examining underlying challenges *International Journal of Multidisciplinary Research and Development* (ISSN: 2349-5979)Impact Factor: RJIF 5.72 Volume 5; Issue 1,p No. 62-65



## COGNITIVE STYLES OF THE STUDENT TEACHERS AT SECONDARY LEVEL

Gilu G. Ettaniyil\*

### Abstract

*The Cognitive style of an individual influence the intellectual activities in many different ways. The purpose of this descriptive study was to identify the Cognitive Styles of Student Teachers at Secondary Level of Kerala. The survey was conducted by using a Cognitive Style Inventory (CSI) of Jha (2010) for identifying the cognitive styles of student teachers based on Gender, Steams of Discipline and Type of Management. Normative Survey method was used for this study. The study was conducted among 1115 student teachers randomly selected from the student teachers studying in Government, Aided and Unaided Teacher Education Colleges of Kerala. The study reveals that most of Student Teachers from Government, Aided and Unaided Teacher Education Colleges belong to the category of Split Cognitive Style.*

**Key Words:** Cognitive Styles, Systematic Style, Intuitive Style, Integrated Style, Undifferentiated Style, Split Style, Student Teachers, etc.

### Introduction

Information processing is one of the significant factors for understanding individual behavior. Each individual has a way of gathering and processing information. The tremendous increase of the information resources and extensive use of e-resources have made the necessity of information competence in identifying, accessing, evaluating and using accurate information ethically and effectively. Cognitive styles of student teachers may influence the ethical use of information from the vast array of information resources. Cognitive style is an individual's preferred and habitual approach

to organising and representing Information. It affects the ways in which events and ideas are viewed, how an individual may think, react to, represent situations, make decisions (Riding and Rayner, 1998). Students have different cognitive styles that influence how they organize and process information, and influencing their learning performance (Kinley, 2013). The identification of cognitive styles and student academic performance are imperative for the development and execution of both curricula and instructional strategies.

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\* College Librarian, St. Thomas College of Teacher Education Pala, Kerala.

## **Cognitive Styles**

Theories of cognitive styles were developed as a result of early studies conducted by Witkin et.al. These studies resulted in theories that commonly considered as a single dimension of cognitive style with two extremes. The two extremes were expressed in general terms by Keen(1973), Mikenney & Keen (1974), and Botkin(1974) as a Systematic and Intuitive Cognitive Style.

According to Mikenney and Keen(1974), the model of Cognitive Styles is based on the twofold assumption that consistent styles of understanding acquired through practice and experience and that these styles can be categorized along two dimensions, information gathering, and information evaluation.

Information gathering associates with the entirely perceptual manners by which the mind controls and organises the distributed verbal and visual ideas it meets. Information evaluation pertains to processes usually categorized under problem-solving. People differ not only in their information gathering method but also differ in their order of data analysis. These variations are most noticeable concerning to formal planning.

Systematic individuals approach a problem by arranging it in a well-organized way, which leads to a reasonable solution. Intuitive thinkers usually withdraw engaging themselves in this approach. Their policy is setting more than one solution and testing it by trial-and-error. They are much more ready to shift from one plan to another, to reject information, and to be sympathetic to cues that they may not be ready to recognize verbally (McKenny and Keen, 1974).

The systematic style is connected with a logical, rational expression that uses a step by step persistent approach to thinking, learning, problem-solving, and decision making. In contradiction, the intuitive style is related to an unconscious holistic and visual approach. These two styles, however, did not indicate the whole spectrum of people's performance concerning thinking, decision making, learning, and especially problem-solving. Therefore, a multidimensional model intended to reflect the entire spectrum was postulated (Martin, 1983). This model consisted of two varieties, i.e., (1) High systematic to low systematic and (2) High Intuitive to low intuitive. Based on the continuing observational studies and measurement devices for analysing the cognitive behavior, developed an extended version of the initial model, which led to the expansion of five cognitive styles (Jha, 2001).

1. Systematic Style: - A person typically performs with systematic cognitive style practices, a well-defined step by step method when resolving a problem, looks for an overall method or logical approach, and then obtains an overall strategy for solving the problem.
2. Intuitive Style: - The individual whose cognitive style is intuitive, practices an unpredictable ordering of analytical steps when resolving a problem, relies on experience patterns characterized by un verbalized areas or thoughts, and investigates and found alternatives immediately.
3. Integrated Style: An individual with an integrated cognitive style can switch to other styles suddenly and quickly.



Such Styles variations appear to be unconscious and take place within seconds. The result of this 'rapid-fire ability' is that it looks to produce energy and a proactive approach to problem-solving. Usually, integrated people are referred to as 'problem seekers' because they consistently try to recognize possible problems and possibilities to find more reliable ways of doing duties.

4. Undifferentiated Style: This type of Cognitive styles cannot distinguish or differentiate between systematic and intuitive cognitive styles. Therefore it did not represent a style. In a problem-solving solution, the individual will receive directions or guidelines from outside sources. Undifferentiated individuals favor to be withdrawn, passive and reflective and often seek others' help for problem-solving procedures.
5. Split Style: - A person with split style shows comparatively equal levels of systematic and intuitive specialization. Nevertheless, an individual with a split style does not occupy an integrated behavioural response; instead, they present each separate dimension is various backgrounds, using only one style at a time based on the kind of their responsibilities. In other words, they consciously react to problem-solving by choosing the most relevant style.

### Objectives of the Study

To identify the distribution of Cognitive Styles of Student Teachers at Secondary Level based on (A) Total Sample, (B) Gender, (C) Streams of Discipline and (D) Type of Management

### Methodology

Descriptive survey method is used to identify the Cognitive Styles of Secondary Level Student Teachers of Kerala. The present study was conducted on samples consisted of 1115 student teachers. Stratified Random Sampling is used to select the samples from the population. The investigator used Cognitive Style Inventory of Dr. Praveen Kumar Jha (2010) for identifying the Cognitive Styles of Student Teachers. The inventory was administered personally and the data was collected and analysed.

### Analysis and Interpretation

Distribution of Cognitive Styles of the Student Teachers at Secondary Level

To identify the Cognitive Styles of Student Teachers at Secondary Level, the investigator administered Cognitive Style Inventory developed by Jha (2010). Based on this, Cognitive Styles among the Student Teachers are classified into Systematic Cognitive Style, Intuitive Cognitive Style, Integrated Cognitive Style, Undifferentiated Cognitive Style and Split Cognitive Style. The distribution of the scores is given below in table 1

Table 1  
*Frequency Distribution of the Cognitive Styles among Student Teachers at Secondary Level*

| Cognitive Styles | Number(N) | %    |
|------------------|-----------|------|
| Systematic       | 120       | 10.8 |
| Intuitive        | 47        | 4.2  |
| Integrated       | 70        | 6.3  |
| Undifferentiated | 162       | 14.5 |
| Split            | 716       | 64.2 |
| Total            | 1115      | 100  |



From the Table 1 the investigator observes that 10.8% of Student Teachers have Systematic Cognitive Style, 4.2% of students have Intuitive Cognitive Style, 6.3% of the students possess Integrated Cognitive Style, 14.5% belong to Undifferentiated Cognitive Styles and 64.2% have Split Cognitive Style.

The investigator analysed different types of Cognitive Styles such as Systematic Cognitive Style, Intuitive Cognitive Styles, Integrated Cognitive Styles, Undifferentiated Cognitive Styles and Split Cognitive Styles with respect to Gender. The number and percentage of Student Teachers at Secondary Level belonging to each Cognitive Style is shown in table 2.

Table 2

*Frequency Distribution of Cognitive Styles among Student Teachers at Secondary Level with respect to Gender*

| Cognitive Style        | Male |       | Female |       |
|------------------------|------|-------|--------|-------|
|                        | N    | %     | N      | %     |
| Systematic Style       | 21   | 1.83  | 99     | 8.88  |
| Intuitive Style        | 6    | 0.54  | 41     | 3.68  |
| Integrated Style       | 17   | 1.52  | 53     | 4.75  |
| Undifferentiated Style | 13   | 1.17  | 149    | 13.00 |
| Split Style            | 69   | 6.19  | 647    | 58.03 |
| Total                  | 126  | 11.30 | 989    | 88.70 |

From the table 2 the investigator observes that 1.83 % of Secondary Level Male Student Teachers have Systematic Cognitive Style, 0.54% belong to Intuitive Style, 1.52% belong to Integrated Style, 1.17% belong to Undifferentiated Style and 6.19% belong to Split Style. The table also reveals that 8.88% of female student teachers belong to Systematic Style, 3.68% belong to Intuitive Style, 4.75% belong to Integrated Style, 13% belong to Undifferentiated Style and 58.03% belong to Split Style.

The distributions of Cognitive Styles among Student Teachers with respect to Gender are also shows that Majority of the Male and Female Student Teachers belong to the category of Split Style and the Intuitive Style category has least number of Student Teachers.

The frequency distribution of different Cognitive Styles among Student Teachers based on the demographic variable Type of Management is given in the table 3.

Table 3

*Distribution of Cognitive Styles among Student Teachers at Secondary Level with respect to Type of Management*

| Cognitive Style        | Govt. |       | Aided |       | Unaided |       |
|------------------------|-------|-------|-------|-------|---------|-------|
|                        | N     | %     | N     | %     | N       | %     |
| Systematic Style       | 18    | 1.61  | 52    | 4.48  | 52      | 4.66  |
| Intuitive Style        | 5     | 0.44  | 21    | 1.88  | 21      | 1.88  |
| Integrated Style       | 17    | 1.52  | 29    | 2.60  | 24      | 2.15  |
| Undifferentiated Style | 22    | 1.97  | 64    | 5.74  | 76      | 6.82  |
| Split Style            | 153   | 13.72 | 315   | 28.25 | 248     | 22.24 |
| Total                  | 215   | 19.28 | 479   | 42.96 | 421     | 37.76 |

Table 3 reveals that 13.72% of the Student Teachers in the Government Colleges belong to Split Cognitive Style, 1.97% possess Undifferentiated Style, 1.61% have Systematic Style, 1.52% possess Integrated Style and 0.44% belong to Intuitive Style.

Table 3 also shows that 28.25% of the Student Teachers at Secondary Level in the Aided Colleges have Split Cognitive Style, 5.74% belong to Undifferentiated Style, 4.48% have Systematic Style, and 2.60% have Integrated Style. Only 1.88% of the Student Teachers possess the Intuitive Cognitive Style.

The Table 3 also shows that the percentage of Student Teachers at Secondary Level in the Unaided Colleges belong to the Systematic, Intuitive, Integrated, Undifferentiated and Split Cognitive Styles are 4.66, 1.88, 2.15, 6.82 and 22.24 respectively. The investigator observes that irrespective of the type of management, the Split Cognitive Style category has the highest number of Student Teachers and the Intuitive Style category has the least number of Student Teachers.

The frequency distribution of different Cognitive Styles among Student Teachers based on the demographic variable Streams of Discipline is shown in the table 4.

Table 4

*Distribution of Cognitive Styles among Student Teachers at Secondary Level with respect to Streams of Discipline*

| Cognitive Style        | Science |       | Arts |       | Languages |       |
|------------------------|---------|-------|------|-------|-----------|-------|
|                        | N       | %     | N    | %     | N         | %     |
| Systematic Style       | 58      | 5.20  | 32   | 2.87  | 30        | 2.69  |
| Intuitive Style        | 16      | 1.43  | 14   | 1.26  | 17        | 1.52  |
| Integrated Style       | 43      | 3.86  | 18   | 1.61  | 9         | 0.81  |
| Undifferentiated Style | 76      | 6.82  | 37   | 3.32  | 49        | 4.39  |
| Split Style            | 385     | 34.53 | 163  | 14.62 | 168       | 15.07 |
| Total                  | 578     | 51.84 | 264  | 23.68 | 273       | 24.48 |

Note: N- Number of Students, %- Percentage of Students

Table 4 reveals that 34.53% of the Student Teachers in the Science Stream belong to Split Cognitive Style, 6.82% possess Undifferentiated Style, 5.20 % have Systematic Style, 3.86% possess Integrated Style and 1.43% belong to Intuitive Style.

Table 4 also shows that 14.62% of the Student Teachers at Secondary Level in the Arts Stream have Split Cognitive Style, 3.32% belong to Undifferentiated Style, 2.87% have Systematic Style, and 1.61% have Integrated Style. Only 1.26% of the Student Teachers possess the Intuitive Cognitive Style.

The table 4 also shows that the percentages of Student Teachers at Secondary Level in the Language Stream belong to the Systematic, Intuitive, Integrated, Undifferentiated and Split Cognitive Styles are 2.69, 1.52, 0.81, 4.39 and 15.07 respectively. The investigator observes that irrespective of the Streams of discipline, the Split Cognitive Style category has the highest number of Student Teachers.

### Findings of the Study

- 64.2% of the Student Teachers at Secondary Level possess Split Cognitive Styles.
- Majority of Male and Female Student Teachers have Split Cognitive Style, and Student Teachers with Intuitive Cognitive Style are the least in number.
- A good number of Student Teachers from Government, Aided and Unaided Teacher Education Colleges belong to the category of Split Cognitive Style and a small number of Government, Aided and Unaided Student Teachers belong to the category of Intuitive Cognitive Style.

- Most of the Student Teachers who belong to the Science, Arts, and Language Streams have Split Cognitive Styles.
- For Science and Arts Streams Intuitive Style category has the least number of Student Teachers and for Language Stream Undifferentiated Style category has the least number of Student Teachers.
- For Science and Arts Streams the number of Student Teachers belonging to the Intuitive Style category is the least and for Language Stream the Undifferentiated Style category has the least number of Student Teachers.

### Conclusion

The Cognitive Styles of an individual plays a significant role in the individual's perceptual and intellectual activities. The present study shows most of Student Teachers belong to Split Cognitive Styles with respect to Gender, Streams of Discipline and Typo of Management. That is the Student Teachers possess comparatively equal Systematic and Intuitive Cognitive Styles. Identification of the Cognitive Styles of Student Teachers helps the teacher educators for adopting the appropriate learning strategy in imparting the curriculum transaction.

### References

- Ausburn, L.J. & Ausburn, F.B. (1978). Cognitive Styles: Some Information and Implications for Instructional Design. *Educational Communications and Technology Journal*, 26, 337-354.
- Goldstein, K.M. and Blackman, S. (1978). *Cognitive Styles, Five Approaches and Research*. New York: Wiley and Sons.

- Hayes, J., & Allinson, C. W. (1998). Cognitive Style and the Theory and Practice of Individual and Collective Learning in Organizations. *Human Relations*, 51(7), 847–871. doi:10.1177/001872679805100701.
- Jha (2001). *Manual for Cognitive Style Inventory*. Agra: National Psychological Corporation
- Kogan, N. (1983). Stylistic Variation in Childhood and Adolescence: Creativity, Metaphor and Cognitive Styles. In Mussen, P.H., Flavell, J.H. & Markman (eds). *Handbook of Clinical Psychology. Vol3. Cognitive Development*. New York: Wiley.
- Riding R and Rayner S, (1998). *Cognitive styles and learning strategies: Understanding Style Differences in Learning and Behavior*. London: David Fulton Publishers.
- Saha, S., & Sharma, R. R. K. (2019). The impact of personality and cognitive style of managers on their work types. *Journal of Management Development*. doi:10.1108/jmd-04-2017-0103



# AGE, OCCUPATIONAL STATUS AND THE LEVEL OF AWARENESS ABOUT DIGITAL RESOURCES AMONG KERALA PUBLIC LIBRARY USERS

Anat Suman Jose\*

## Abstract

*Public libraries have always been playing an important role in the socio - cultural and educational development of a country. Variety of users that ranges from infants to senior citizens with different ages and diverse viewpoints working in different occupations can only be found in public libraries. India is embarking with new technological initiatives. One of the best examples of this initiative is "Digital India". All citizens should make use of its benefits for the success of this programme. As the Public libraries are existing in each and every corner of the country, they are the best medium to deliver this idea quickly to all citizens. For more effective implementation of this venture, a thorough study should be needed to learn about the level of awareness of the digital resources among the public library users. In Kerala almost 85% of the public libraries are coming under Kerala State Library Council. Thus, the study conducted by distributing structured questionnaire among 1003 public library users with different age groups and occupations from 14 districts of Kerala was able to determine the level of awareness of users to a certain extent. It is found that, the age category between 15 to 30 years and the students category have more awareness about digital resources than other categories. At the end of the article, the researcher provides suggestions to increase awareness level of other category users about digital resources.*

**Key Words:** Digital Resources, Kerala State Library Council, Public Library Users, etc.

## 1. Introduction

Public libraries are the institutions that are funded by the public. Therefore, the libraries should provide needed information to its user community without any discrimination. In this globalised era, public libraries are functioning as an information hub of a society with a variety of resources

and services. The three main components of every library are resources, staff and users. Printed documents are inadequate to satisfy patron's information needs, as the users of public libraries are of varying age, educational qualifications and with technological literacy. Digital resources can

\* UGC Librarian, St. Peter's College, Kolenchery, Kerala.

solve this problem to certain extent. Digital resources enable public library professionals to provide users with faster and up-to-date information. The technological innovations brought drastic changes both in the nature of library collection and also the information requirement of the users. It also resulted in the realization of importance of the role of public libraries, in educational and cultural development of a nation.

## 2. Public Libraries in Kerala

History of India reveals the importance of public libraries in developing a generation with good culture and education. As the large part of the country is covered with rural areas, majority of the citizen are depending mostly on public libraries to fulfil their information requirements. Kerala has got the huge number per head of rural libraries among the states of India, i.e, one public library within each 10 square kilometres. Mainly there are four types public library system exists in Kerala. They are the Libraries directly run by the Government, Libraries affiliated to the Kerala State Library Council, Libraries run by the Local bodies and the Libraries run by the Individuals, Clubs etc. Among these four categories, 8,588 Public libraries (as on March 31st, 2019) are registered under the Kerala State Library Council. Thus, it covers the largest number of Public libraries of Kerala, this study focuses on the use and awareness of users of public libraries that are coming under the governance of Kerala State Library Council.

### 2.1 Kerala State Library Council (KSLC)

Every year, the Government of Kerala is spending money in crores through KSLC, for the promotion of reading habits among

the public and also to inculcate social responsibility. KSLC is following a three-tier administrative system such as State Library Council, District Library Council and Taluk Library Council for the easy and effective governance of Public libraries of Kerala.

State Library Council is taking initiatives to conduct various training programmes for the Librarians and administrative staff, hands-on training programmes on Library Management Software KOHA and also for selected library staff from each district to provide Smart E- Reading rooms services to the users. Technological experts are giving training for selected librarians about the use of advantages of social media effectively in library environment to promote reading habits among the public. Library Council started the initial works of digitization of rare collections like Palm leaves, Manuscripts of famous personalities etc. Implementation of Braille Auditory libraries in Kasaragod and Malappuram district is a great relief to the financially weak Visually challenged public library users.

Public libraries under KSLC play an important role in the execution of the various developmental activities of Kerala Government in terms of Protection of General education, Green Kerala Programmes and socio- cultural activities. Training for the Self-employment of Women, providing informal education to the Tribes through the programme 'Munnettam', 'Santhwanam' programme for palliative activities, 'Sourorjam' scheme to participate in Energy Conservation, 'Nattunarvu' for Farmers, 'EnteGramam Plastic Vimuktham' programme to eradicate environmental pollution, Organic Farming etc.



Information needs of the user community can be satisfied through various kinds of digital resources which are available in libraries as online or offline or with Open Access Resources within no time. There are three types of Digital resources are available in Public libraries of Kerala. They are Primary digital resources like E- Journals, E-theses, E - Conferences, E- patents etc.; Secondary digital resources that contains information about primary digital sources such as e- books and some other digitally available online resources; and Tertiary digital resources i.e., the distilled form of primary and secondary resources available in digital form such as Yearbooks (online or offline), e- Directories etc.

### 3. Methodology

Literature Survey and Survey method were used to conduct this study among 1003 the public library users. 41 public libraries that are coming under Kerala State Library Council were graded with A+ grade in 12 districts during the year 2018. As the A+ grade libraries were absent in Pathanamthitta and Idukki, researcher selected two top most A grade libraries from these districts. Study was carried out by distributing structured questionnaires to users of selected public libraries of 14 districts.

### 4. Objectives

- To identify different age categories of public library users in Kerala
- To identify occupational status of public library users
- To examine Level of awareness towards digital resources among the different age group of the public library users.
- To examine Level of awareness towards

digital resources among the different occupational status of the public library users.

## 4. Analysis & Findings

### 4.1 Age

Table 1

*Age-wise distribution of selected public library users*

| Age group | Frequency | Percent |
|-----------|-----------|---------|
| Below 15  | 129       | 12.85   |
| 15 – 30   | 432       | 43.04   |
| 31 – 60   | 304       | 30.36   |
| Above 60  | 138       | 13.75   |
| Total     | 1003      | 100     |

Source: Computed from primary data

Figure: 1

*Age-wise distribution of selected public library users*

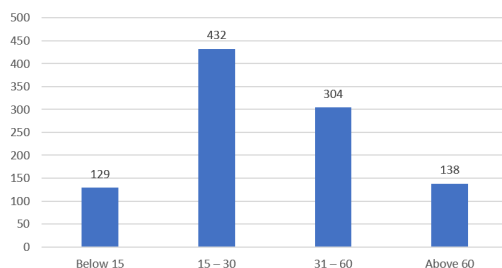


Table: 1 deals with the age group of the selected public library users. It reveals that out of the 1003 total respondents, 129 public library users belong to the age group below 15 years, 432 public library users belong to the age category between 15 to 30 years, 304 public library users belong to the age category between 31 to 60 years and 138 public library users belong to the age group of above 60 years. Hence, most of the selected public library users under study belong to the age category between 15 to 30 years.

Table 2

*Level of awareness towards digital resources among the different age group of the public library users*

| Level of awareness towards digital resources | Label          | Sum of Square | Df   | Mean Square | F     | Sig.  |
|----------------------------------------------|----------------|---------------|------|-------------|-------|-------|
| ×                                            | Between Groups | 25.349        | 4    | 6.337       |       |       |
|                                              | Within Groups  | 167.89        | 998  | 0.168       | 37.72 | .000* |
|                                              | Total          | 193.239       | 1002 |             |       |       |

Source: Computed from Primary Data;

\*5% level of significance

Table:2 reveals the result of ANOVA applied to test the significant difference in the level of awareness towards digital resources among the different age group of the public library users. The calculated P value for the level of awareness towards digital resources (F value = 37.72) show that there is a significant difference among the different age group of the public library users, since its P value (.000) is less than 0.05. It is found that, there is a significant difference between the age group of the public library users and their level of awareness towards digital resources. Thus, from the Post Hoc Analysis, it is identified that, among the different category age groups of selected public library users, the group which is aged between 15 to 30

Figure 2

*Occupational status of the selected public library users*

years are more aware of digital resources than that of other groups.

#### 4.2 Occupational Status

Table 3

*Occupational status of the selected public library users*

| Occupation  | Frequency | Percent |
|-------------|-----------|---------|
| Employed    | 263       | 26.2    |
| Agriculture | 194       | 19.3    |
| Business    | 176       | 17.5    |
| Retired     | 154       | 15.4    |
| Student     | 96        | 9.6     |
| House Wife  | 82        | 8.2     |
| Unemployed  | 38        | 3.8     |
| Total       | 1003      | 100     |

Source: Computed from primary data

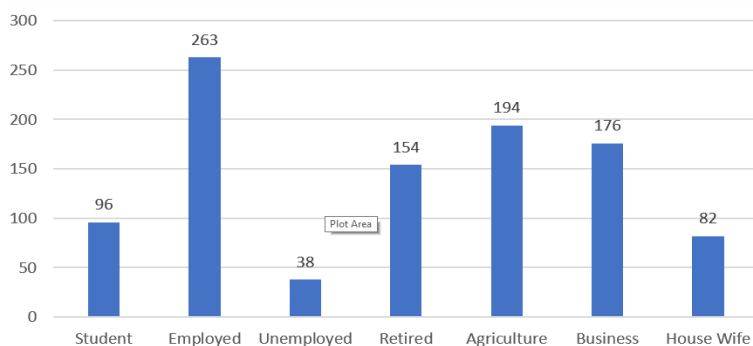


Table: 3 deals with the occupation of the selected public library users. It reveals that out of the 1003 total respondents, 96 public library users were students, 263 public library users were employed, 38 public library users

were unemployed, 154 public library users were retired, 194 public library users were agriculturalists, 176 were businessmen and 82 were house wives. Hence, majority of the selected public library users were employed.

Table 4

*Level of awareness towards digital resources among the different occupational status of the public library users*

| Level of awareness towards digital resources | Label   | Sum of Square | Df   | Mean Square | F     | Sig.  |
|----------------------------------------------|---------|---------------|------|-------------|-------|-------|
| ×                                            | Between |               |      |             |       |       |
|                                              | Groups  | 48.112        | 7    | 6.873       |       |       |
|                                              | Within  | 162.781       | 995  | 0.163       | 42.16 | .000* |
|                                              | Groups  |               |      |             |       |       |
|                                              | Total   | 210.893       | 1002 |             |       |       |

Source: Computed from Primary Data;

\*5% level of significance

Table: 4 reveals the result of ANOVA applied to test the significant difference in the level of awareness towards digital resources among the different occupational status of the public library users. The calculated P value for the level of awareness towards digital resources (F value = 42.16) show that there is a significant difference among the different occupational status of the public library users, since its P value (.000) is less than 0.05. It is found that, there is a significant difference between the occupational status of the public library users and their level of awareness towards digital resources. Thus, based on Post Hoc Analysis, it is identified that, the students are more aware about the digital resources than other categories of public library users.

## 5. Suggestions

- In accordance with the above findings, researcher recommended the following suggestions to increase the awareness level of public library users in Kerala.

Conduct more awareness programmes like Seminars, workshops, hands on training sessions for the public library users.

- Provide more digital services especially e governance services through public libraries. It will inculcate more interest in users to study more about it.
- The best service provided by the Public libraries in Kerala is Mobile libraries. In this programme a women librarian is meeting the users at their home. They can use this opportunity to impart information about digital resources and services to their users at their door steps.
- Public libraries should start various alert services, through e mails or other media about library services. This will help to increase the level of awareness among the users about digital resources and services. Finally, this will be resulted in the maximum usage of the public libraries of the state.

## Conclusion

Through this study, the level of awareness about digital resources among the users of public libraries under the State Library Council of Kerala was analysed at a certain extent. The result shows that students are more aware about the digital resources among the public library users in Kerala and the age category 15 – 30 have more awareness. Thus, it shows that, even though the users are with different age categories and occupations, youth as students have more awareness. Its Governments responsibility to introduce more programmes in public libraries to improve the awareness level of the public library users through Kerala State Library Council. It is the responsibility of Kerala Government to introduce more programmes in public libraries to improve the awareness level of the public library users through Kerala State Library Council. In this digital era, it is essential to take new initiatives to make awareness among the citizens of all walks of life about digital resources and services. It will also lead to the overall development of a nation.

## References

- American Library Association. (2011). Public Library Technology Landscape. American Libraries, Digital Supplement, 23-39. Retrieved from <https://www.jstor.org/stable/10.2307/26197606>.
- Anat, S. J. (2019). Role of Public Libraries in the Socio-Cultural Development of Kerala. In *Panoptical Perspectives: Traditional Knowledge, Culture and Civil Society* (pp. 155-164). Kochi, Kerala: Vipanchiks Books.
- Appukkuttan, P. (2018). Annual Report on Revenue Expenditure 2017-18 (pp. 1-53, Rep.). Thiruvananthapuram, Kerala: Kerala State Library Council.
- Devarajan, G. (1990). Changing concepts of Public Library development in Kerala. In *Public Library System in India* (pp. 34-42). New Delhi: EssEss Publication.
- Khanna, J. (1987). The Public Library as an Educator. In *Library and Society* (p. 31). New Delhi: EssEss Publication.
- Narayanan, P. (2017). Grandhasala Prasthanam Kerala (K. M. Lenin, Ed.). Thiruvananthapuram, Kerala: Kerala State Library Council.
- Ngurtinkhuma, R. (2011). Public Library in India: Impact on Socio-cultural and Educational development of Mizoram. New Delhi: Today and Tomorrow's Printers and Publishers.
- Ravindran, K. (1990). Public Libraries in India. In *Public Library System in India* (pp. 1-7). New Delhi: EssEss Publication.



## GRAPHIC ORGANIZER: AN EFFECTIVE STRATEGY FOR IMPROVING THE SPATIAL ABILITY AMONG SECONDARY SCHOOL STUDENTS

Dr. Susmitha P S\*  
Honey K Nandakumar\*\*

### *Abstract*

*The present study, “Graphic Organizer: An effective strategy for improving the Spatial Ability among Secondary School Students” aims to investigate the effectiveness of Graphic Organizer Strategy in improving the Spatial Ability of pupils. The study is Experimental in nature. It was conducted on a total sample of 80 students of secondary school and the design of the study is per-test—post-test non-equivalent group design. Appropriate tools and statistical techniques were employed. The study revealed that the experimental group who received Instruction through Graphic Organizer strategy showed improvement in Spatial Ability.*

**Key words:** *Graphic Organizer, Spatial Ability, Strategy, etc*

### Introduction

Graphic Organizers are teaching and learning tools that show organization of concepts as well as relationships between them into a visual format. Graphic organizers can be used in any processes of lesson with different aims. They can be used as a teaching tool through out a lesson, or for review at a later time. Being visual is so important in Graphic Organizers. Graphic organizers are important and effective tool for organizing content and ideas and

facilitating learner’s comprehension of newly acquired information. Gardner’s theory of multiple intelligence (2006) posits that students are better able to learn and internalize information when more than one learning modality is employed in an instructional strategy. Because Graphic Organizers present material through visual and spatial modalities and reinforce what is taught in the classroom, the use of Graphic Organizers helps students internalize what they are learning.

\* Assistant Professor, SNM Training College, Moothakunnam, Mob:9645810941

\*\* M.Ed Student, SNM Training College, Moothakunnam.

Graphic Organizer acts as effective pedagogical tool for organizing content and facilitating learner's comprehension of information and ideas through visual and spatial modalities to internalize what they are learning. Graphic Organizers are effective way to congregate the demands for learners with a visual learning style and can be used as a way to alert students to show subject matter in various visual patterns through which the subject matter is interrelated (Ives, 2007). This allow them to build these visual representations of their mental schemata to co-construct knowledge that motivate them to explain and support their mental webbing of ideas, which leads to a deeper understanding of concepts to develop meaningful knowledge sets that can be efficiently applied to the solution of relevant problems (Bromley, DeVitis & Modlo, 1999). Graphic Organizer Strategy facilitates and improves learning outcomes for a wide range of learners and also to strengthen their cognitive processing. Studies of Brown, Bromely, Clark, Andrea, Ives and McCarthy reveals that Graphic Organizer Strategy act as an effective strategy for curriculum transaction, language development and cognitive processing.

Spatial Ability is the ability to judge the size, shape and positions etc. Spatial Ability is the ability to perceive a static figure in different positions, the ability to interpret and duplicate the movements between various parts of a figure, the ability to perceive the relationship between an object and person's body sphere, and the ability to interpret the person's body as an object in space. Spatial Ability entail visual problems or tasks that require individuals to estimate, predictor

judge the relationship among figures or objects in different contents (Elliotand Smith,1983). More specifically, Spatial Abilities have to do with individual's abilities to search the visual field, apprehend forms, shapes and positions and manipulate such representations mentally. Spatial Ability is concerned with perceiving spatial patterns accurately, and following the orientation of figures when their position in a plane or space is altered.

This ability has been extensively studied over the years and has been seen as an indicator of nonverbal, or to some extent, culture-fair intelligences incites dependence on acculturation and learning is minimal. This ability is found to be high in individuals who are successful in geometrical drawing drafting vocational training pilots, space scientists and in art and design. It is a predictor of occupations involving figural materials such as those dealing with shop work, architecture, building construction, engineering, commercial art, dress designing, die making and decoration, etc. There are many tasks in which one is required to imagine how an object would look if made from a given pattern or a specified object would appear if rotated in a given way.

Spatial ability is an important component of human intelligence. Spatial intelligence describes the ability to perceive visual or spatial information, to transform and modify this information and to recreate visual images even without reference to an original physical stimulus. Spatial intelligence is used in sculpture, architecture, surgery and navigators. As time went by the investigators started realizing the significance of Spatial Abilities as viable determining factors in



specific areas of scholastic achievement. Below are given the different facets of Spatial Abilities.

McCarthy (2008) writes, According to Brunn (2002) graphic organizers and other visual organizers help students understand relationships by presenting information explicitly and spatially". The graphic organizer assists in comprehension of vocabulary by allowing the child to map out the meaning of a word in order to build understanding. Clark (2007) found that Graphic Organizers not only enable students to record and categorize information, but also help students to understand difficult concept, generate thoughts, and identify connections between ideas. When used effectively, these visual tools can have a positive impact on student achievement. Students who work with Graphic Organizers often show improved writing and critical thinking skills as they guide students through the inquiry process. Shanahan, et al., (2006) conducted a study on "A comparison of Graphic and visual test accommodations in measuring urban fifth-grade English language learners' science content acquisition". There was a significant but moderate correlation between the ability to read in another language and the percentage of correct visual responses and the ability to read in another language and the percentage of correct Graphic Organizer responses. The results suggest that assessment designers include more questions with visuals to provide context. The results also imply that elementary teachers should incorporate visuals and Graphic Organizers in their instruction and their own classroom assessments. Geometry education has proven as one powerful means of improving

spatial abilities an important component of human intelligence. (Koufmann, 2005)

### **Need and significance**

In everyday life we are using advanced science concepts but only a few of us are trying to understand the real meaning of them. It is also well known that advanced Physics concepts we usually employed cannot be developed during science classes. National science curricula usually follows a historical approach of concepts discovery, so in most of the cases, there is not enough time to cover the up to date knowledge. Students demand more explanations from their teachers in order to clarify the concepts they are using frequently. In the same time, for the teachers is a big challenge to face these requirements and to find suitable ways to offer their students a high level of understanding of advanced science concepts. A solution can be the use of innovative instructional strategies to justify competence and also to mould the young generation to satisfy the demands of the society. In learning science especially Physics, Graphic Organizer Strategy acquires paramount importance. Graphic Organizers guide learners' thinking as they fill in and build upon a visual map or diagram. Graphic Organizers are some of the most effective visual learning strategies for students and are applied across the curriculum to enhance learning and understanding of subject matter content. In addition to helping students organize their thinking and writing process, Graphic Organizers can act as instructional tools. Teachers can use Graphic Organizers to illustrate a student's knowledge about a topic or section of text showing areas for improvement.

The investigator being a science teacher educator, who is familiar with the present instructional practices of Science curriculum prevalent in different spheres, felt the need of adopting suitable instructional strategies towards its unique dimensionalities with due focus on Spatial Ability. Hence the investigator felt the need of conducting research in that area.

### **Objectives of the Study**

To compare the effectiveness of Graphic Organizer Strategy with the Prevailing Activity Method of Instruction in improving the Spatial Ability of Secondary School Students of Kerala.

### **Hypotheses of the Study**

There exists no significant difference in the mean scores of groups exposed to Graphic Organizer Strategy and Prevailing Activity Method of Instruction with respect to Spatial Ability in Physics of Secondary School Students of Kerala.

### **Methodology**

The present study was focused on studying the effectiveness of Graphic Organizer strategy on Spatial Ability among Secondary school students of Kerala. The study was experimental in nature and adopted the pre-test post-test Non-equivalent group Design which consisted of an experimental group and a control group. The Experimental group was given an Instruction using Graphic Organizer Strategy and control group was taught using Prevailing Activity Oriented method. Two groups were given equal attention during the course of experiment.

### **Sample**

The sample consisted of 66 students in standard IX of H.D.P.S.H.S.S Edathirinji in Thrissur district of Kerala following state syllabus. Investigator decided to adopt simple random sampling technique for sample selection. Out of the selected two divisions of Standard IX from the school, one was taught (experimental group) using Graphic Organizer Strategy and the other was taught (control group) through the Prevailing Activity Oriented Method by investigator.

### **Tools employed for the study**

For the purpose of present study the investigator made use of the following materials and tools.

- Lesson Transcripts based on Graphic Organizer Strategy (Prepared by the Investigators)
- Lesson Transcripts based on Prevailing Activity Oriented Method (Prepared by the Investigators)
- Test of Spatial Ability (adopted).

### **Statistical Techniques**

The different statistical techniques employed are Analysis of Variance, Analysis of Covariance (ANCOVA) and Estimation of adjusted means.

### **Analysis and Discussion**

The scores of 66 students of the experimental and control groups were subjected to analysis of covariance to determine the effectiveness of Graphic Organizer Strategy over Prevailing Activity Method of Instruction. The statistical procedure of ANCOVA as given by Garrett (1981) is strictly followed. Analysis is done in this part is given under the following sub-heads.

## 1. Summary of ANCOVA

## 2. Calculation of Adjusted Means

**A) Effectiveness of Graphic Organizer Strategy over activity method for Total Sample of Students**

Table 1

*Summary of analysis of variance of the pretest and post test scores of experimental and control group*

| Source of variation | Df | SSx    | SSy    | MSx   | MSy    | Fx    | Fy      |
|---------------------|----|--------|--------|-------|--------|-------|---------|
| Among means         | 1  | 1.51   | 218.19 | 1.51  | 218.19 |       |         |
| Within groups       | 64 | 826.61 | 470.48 | 12.92 | 7.35   | 0.116 | 29.68** |
| Total               | 65 | 539.2  | 653.8  |       |        |       |         |

\*\*:- Significant at 0.01 level \*:- Significant at 0.05 level x: Pretest y: Post test

The analysis of variance of pre-test and post-test scores of pupils in experimental group showed in Table 1 that there is significant difference between

the experimental group and the control group. ( $F_y = 29.68$ ,  $P < 0.01$ ). This shows the advantage of teaching through Graphic Organizer. This data was again subjected to Analysis of Covariance.

Table 2

*Comparison of post test scores after correcting for difference in pre test scores (ANCOVA) table for Spatial Ability*

| Source of variation | Df | SSx    | SSy    | SSy.x   | MSy.x   | SDy.x | Fy.x    |
|---------------------|----|--------|--------|---------|---------|-------|---------|
| Among               | 1  | 1.51   | 218.19 | 204.584 | 204.584 | 2.40  | 35.33** |
| Within              | 63 | 826.61 | 470.48 | 365.04  | 5.79    |       |         |
| Total 79            | 64 | 828.12 | 688.67 | 569.624 |         |       |         |

\*\*:- significant at 0.01 level x : Pretest y : Post test y.x : Adjusted post

Analysis of covariance of pretest and posttest scores of pupils in experimental and control group showed that there is significant difference between the two groups

( $F_{yx} = 35.33$ ,  $P < 0.01$ ). Table 2 implies that the experimental group excels control group in improving Spatial Ability.

Table 3

*Unadjusted and adjusted mean scores at pre and post test level of Spatial Ability*

| Groups            | N  | Mean scores of the pre test | Mean scores of the post test | Adjusted Mean |
|-------------------|----|-----------------------------|------------------------------|---------------|
| Graphic Organizer | 33 | 11.9091                     | 17.1515                      | 16.9652       |
| Activity Method   | 33 | 11.6061                     | 14.6061                      | 14.792        |

The criterion means are adjusted to avoid the effect of the covariate from the final result. The obtained adjusted means of the experimental group for total sample is found greater than the corresponding means of control group. It can be inferred from the result that the experimental group is performed better than the control group with regard to the post Spatial Ability test scores. This better performance is due to the effectiveness of Graphic Organizer Strategy, which was treated to experimental group in promoting better understanding in Physics.

### Educational implications

The findings of the study revealed that the Graphic Organizer strategy is effective than Prevailing Activity Oriented Method in improving the Spatial Ability of Pupils at Secondary level. The visual implications of the selected Graphic Organizer Strategy help the pupil to develop their Spatial Ability. The easiness or transformation potential of the selected strategy may be the due cause of better performance in Spatial Ability Test of experimental group who were exposed to Graphic Organizer Strategy. This effectiveness is the result of visualization effect and organizational pattern generated by Graphic Organizer Strategy. The study reveals that the interaction with Graphic Organizer Strategy act as a collaborative tool helps to detach out ideas and facts into indispensable constituents and motive them to bonding these constituents into meaningful patterns. So it is a useful tool for of curriculum framers and textbook writers to keep their mind on the development of concepts through different subjects of education. The study reveals that the interaction with Graphic Organizer Strategy

acts as a powerful tool for visualization of conceptual aspects and also to improve Spatial Ability which will further enhance achievement level. This present study emphasizes the urgency to direct the teachers to develop better teaching strategies to care the pupil's comprehension of Science concepts. This study will enable the teachers to identify the need and importance of Spatial Ability.

### References

- Bromley, K., De Vitis, L.I. and Modlo, M. (1995). *Graphic Organizers: Visual Strategies for Active Learning*. New York, Scholastic Professional Books.
- Bromley, K., De Vitis, L. I. and Modlo, M. (1999). *50 Graphic Organizers for Reading, writing & More*. New York: Scholastic Professional Books.
- Brown, Marjorie (2011), *Effects of Graphic Organizers on Student Achievement in the Writing Process*, Southwestern College Professional Studies, 12, 1-31
- Basham, K. Lynn and Kotrlik, Joe. W. (2008). *The Effects of 3- Dimensional CADD Modeling on the Development of the Spatial Ability of Technology Education Students*, 20, 32-47
- Clark, A. (2007). *Graphic Organizers and school library program*. University of Alberta Department of Elementary Education. *Malaysian Journal of Educational Technology*, 10(1).
- Ives, B. (2007). *Graphic Organizers applied for secondary algebra instruction for students with learning and learning disorder*. *Learning Disabilities Research and Practice*. 22, 110-118.

- Mc Carthy, B. (2008). The 4 MAT systems: Teaching to Learning Styles with right/left mode techniques. Barrington, IL: EXCEL.
- Andrea, M. C., & Sally, B. A. M. (2009). Using a Curriculum Based Measurement Graphic Organizer to Facilitate Collaboration in Reading. *Intervention in School and Clinic*, <http://isc.sagepub.com>.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*". New York: Oxford University Press.
- Schultz, K., Huebner, J., Main, K., & Porhownik, N. (2003). Spatial performance and women's persistence and success in science. University of Winnipeg, Manitoba, Canada. Retrieved 5-5-2005.

