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International Institute of Rehabilitation  
Sciences and Research,  
Bhubaneswar-751030 ODIS(INDIA)  
India
8. Owner's Name : Dr. Santa Misra  
2624/3484,Baragada Canal Colony,  
At/Po.-BJB Nagar, Bhubaneswar-751014  
ODISHA (INDIA)

I, Santa Misra, hereby declare that the particulars given above are true to the best of my knowledge and belief.

**31<sup>st</sup> January, 2020**



**(SantaMisra)  
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## **EDITORIAL**

Odisha Journal of Social Science is having its own identity in its contemporary world. It's a great pleasure that OJSS is stepping forward to its next birth of January, 2020, Volume-7, issue-1. The nature and objective of the papers included in this issue are mainly based on cognitive sphere of mental functioning, teacher education, teaching learning situation in present scenario, inclusive and integrated education and above all the academic stress that influences the students performances in their career building path. The issue is also focusing on educating and fostering the behavior of mentally challenged and children with special needs describing several therapeutic techniques that can help in controlling, managing, challenging and maintaining their life leading processes.

On its way this volume is highlighting the recent system of Bancassurance in banking sectors and how the cognitive processes, like business intelligence and decision making style have an effect on its policies, are visualized. Neuro scientific analysis of the managerial perspective also focused on .With these objectives this volume of Odisha journal of social science has emerged to its new shape. I should not miss the opportunity to congratulate the contributors who have made this volume successful, relevant and metacognitive.

  
(Santa Misra)

## BALLET - THE NEW COMPLEMENTARY THERAPY OPTION FOR PARKINSON

\*Chiiho Sano, Ph.D.

### Abstract

*Parkinson's disease (PD) is a progressive neurological disorder which results from the deficiency of Dopamine neurotransmitter in the brain, which is primarily responsible for controlling body movements. Thus, PD is specified as a movement disorder and people with this condition experience different motor symptoms such as loss of balance, difficulty in walking, freezing, stiffness/rigidity in muscles, bradykinesia (slowness of movements), stooped posture, etc. But PD is not limited to motor symptoms. People with PD also often experience different non-motor symptoms such as depression, anxiety, hallucinations, difficulty with sleeping, etc.*

*Dance is one of the powerful ways which targets both motor and non-motor symptoms of Parkinson's and is often aimed at improving the overall quality of life of people with PD and other neurological disorders. Dance has the potential to address many of the challenges faced by patients. For that reason, Dance is growing in popularity for people with Parkinson's and claims have been made for its benefits.*

*The purpose of this report is to describe the multiple benefits individuals with PD can obtain by attending dance class. Furthermore, it is my intention to provide with important points and recommendations to implement a dance program for individuals with PD in their community.*

**Key Word:** *Parkinson disease, dance, ballet, movement, stability, balance*

*\*Ballet Dancer, Ballet teacher, Choreographer*

### INTRODUCTION:

#### About Parkinson's treatment

Parkinson's is a progressive, degenerative condition for which there is no cure. The disease does not progress in a linear fashion. Treatment options available for Parkinson's disease include medication and surgery to manage its symptoms.

One of the established forms of treatment is the drug L-DOPA, which helps address the dopamine imbalance. But medication becomes unreliable over time. There are a range of medicines prescribed to ease symptoms or to help other drugs metabolize. Many of these usually need to be taken several times a day and with continued use can become unreliable; many people also experience uncontrollable movement (dyskinesia).

But there are other forms of therapy available as well, and one of them is dance. As a form

of movement therapy, dance addresses several of the problems that come with PD. It provides regular social interaction for people who have this condition, has a positive effect on their mental well-being, and it improves their movement and balance. The therapeutic effects of dance have been studied for at least 10 years, and interesting results have been obtained.

### **Dance for Parkinson's**

Past studies have shown several forms of dance that are beneficial to the movement, balance, and psychosocial health of PD patients. Much of the early study focused on tango, but many different types of dance have been researched, including contemporary dance in the form of Mark Morris Dance Group's Dance for PD®, Irish step dancing, ballet, Kathak in the form of Indian classical dance, contact improvisation, ballroom dancing, and Argentine tango. It is exciting that there has been such diverse interest from multiple dance fields.

At present, the Dance for PD® model, which was started in Brooklyn in 2001 is a representative dance program for PD. They work with different dance organizations to provide classes.

English National Ballet has been running a Parkinson's program for more than 10 years and has hubs in Ipswich, Oxford, Cardiff, Liverpool and London. Initial research with Dr. Sara Houston from the University of Roehampton showed a series of 12 weekly dance classes improved balance and stability.

Dr. Houston has led two studies to investigate and understand more about the physical, psychological, social and emotional changes that occur as a result of participating in the program. The results of her second study were published in 2017 and confirm everything the program set out to achieve. The activity of dance was shown not only to decrease (temporarily) the amount of freezing, but also to aid fluency of movement and postural stability. What's more, participants consistently saw trends towards less interference of symptoms on everyday life.

And a new study led by Dr. Judith Bek at Manchester University's Body, Eyes and Movement Laboratories suggests dance classes can help people with Parkinson's to tackle everyday domestic tasks more effectively. Her project – collaborating with ENB, Manchester Metropolitan University and dance social enterprise Equilibrium – used ballet and classical Indian dance. Some participants reported that Indian hand gestures had allowed them to do previously impossible practical tasks, such as opening jars and reaching for objects.

Furthermore, Houston's research with English National Ballet (ENB) found that dance combats depression, which affects 40% of people with Parkinson's, and social isolation. A lot of these people feel socially isolated. Dance keeps people physically and socially active which prevents them from feeling disabled.

Dance for Parkinson's classes in Australia started through initial grassroots community building through sharing information and demonstration classes with Parkinson's support groups and dance teachers. In 2012, the first Dance for PD® interactive workshop was held at the National

Parkinson Conference in Brisbane.

In October 2013, Queensland Ballet commenced a pilot program of weekly dance classes for people affected by Parkinson's, becoming the first dance company in Australia to introduce Dance for PD classes. Queensland Ballet's program offers Dance for Parkinson's participants and cares a wider insight into the world of ballet by incorporating choreography and music from its repertoire into the classes, and through other opportunities to engage with the company.

Sydney-based classes launched officially with a demonstration class at the Parkinson's Unity Walk in 2013. The Sydney classes have developed to encompass a rich variety of styles, drawing on the experiences of dance teachers Catherine Goss and Christine Denny.

At now, it's no surprise that dance classes for people with PD are offered around the world.

### **About Parkinson's disease in India**

According to a study, India has 7 million elders afflicted with PD. This number will continue to grow with rising aging population and life expectancy. Treatment options available for Parkinson's disease include medication and surgery to manage its symptoms. In India, a patient spends around 16-41.7% of the income for medications. Though cost of treatment in India is lesser, it is still out of reach of many patients. To consider surgical options, when necessary, may be much more difficult in patients of lower socioeconomic status. With average life span of Indians going up by 5 years in the last decade (Union Ministry & Family Healthcare Statistics-2014) and projected to increase by 19% by 2050 (United Nations Population Division India), the disease burden of India is expected to increase tremendously. This will lead to enormous strain on the economy as well as the healthcare services of the country which is still struggling to cater to the people across geography & socio-economic strata of the country. People have started realizing the importance of supportive therapies for these conditions.

With the increasing number of people being diagnosed with Parkinson's in India, the scope of dance and movement therapy with people with PD is also widening. Dance and movement Therapy is a relatively new and emerging field in India but it seems to be growing at a rapid pace. We recognize the power of dance and movement for Parkinson's in India and the importance of doing research in this field.

Parkinson's is a condition where social isolation can be a consequence. Dance participants have been keen to stress the importance of the program as a place where they feel valued and where they feel they can make friends. Surprisingly, however, Indians are rarely isolated from their families and communities because of illness. Probably due to strong intimate family and social ties between Indians. This means that better treatment is needed to meet the needs of Indian patients.



## **Dance for Parkinson's in India**

The Parkinson's Disease and Movement Disorders Society (PDMDS) was registered in Mumbai in 2001, and organized its first World Parkinson's Day (WPD) event in December 2003, when PDMDS hosted the 7th World Parkinson's Day International Symposium in Mumbai. The very first Global Declaration for PD was launched at this inaugural meeting, signed by industrialists and celebrities of India, together with the visiting faculty. Since then, PDMDS has been organizing the WPD event every year in Mumbai, and people with PD and their caregivers in India look forward to this event each year.

From 2004 to date, the society has grown by leaps and bounds in the variety of activities, and along with its team of Neurologists, Psychologists, Physiotherapists and various medical, allied medical and fitness professionals, PDMDS has extended its reach to cities other than Mumbai. It currently has a strong presence in Nashik, Pune, Goa and Bhavnagar, in addition to Mumbai.

In the city of Pune, the Hrishikesh Center for Contemporary Dance in collaboration with the Mark Morris Dance group & the Sanchetic Orthopedic Center through the "Dance for Parkinson's Program" impacts 75 patients, their families & care givers. The program in its structure explores and challenges the paradigms of dance through the inhibited movements of a Parkinson's body. An acceptability and a will to surpass these inhibitions of one's body movements through dance as a community makes way for compassion and positivity. This is one of the reasons that the dance for PD class is an uninhibited joyful experience with infectious energy.

## **INDICATIONS FOR USE OF BALLET AS THERAPY IN PD**

Ballet is a type of performance dance that originated during the Italian Renaissance in the fifteenth century and later developed into a concert dance form in France and Russia. It has since become a widespread, highly technical form of dance with its own vocabulary based on French terminology. It has been globally influential and has defined the foundational techniques used in many other dance genres and cultures. Ballet has been taught in various schools around the world, which have historically incorporated their own cultures and as a result, the art has evolved in a number of distinct ways.

Ballet develops flexibility, strength, and coordination skills. Of its many benefits, dance incorporates and emphasizes the senses of sight, sound, and touch to use as tools to assist in movement and balance. In addition, learning ballet movements enhances the spatial and body awareness while stimulating creativity through improvisation, storytelling, communication, and expression. Choreography, on the other hand, allows for rehearsing movement sequencing, new motor skill learning, and improving cognitive functions. The fusion of musicality with ballet improves the participants' sense of rhythm and allows for emotional exploration. Last, but not least importantly, ballet instills confidence and a strong sense of self.

Especially, ballet dancers know about the power of dance to concentrate mind, body, and emotion on movement—they use their thoughts, imagination, eyes, ears, and touch to control their



bodies every day. Therefore, increased awareness of these skills and everything that ballet dancers do to train their minds and bodies are both helpful, essential and extremely useful for persons with Parkinson's disease.

Classes focus on dance techniques, aesthetics, musicality, and creativity. Instead of the limitations and challenges that individuals with PD may face. By doing so, participants are given the identity of a dancer rather than a patient. Dance classes consist of several core elements such as warm-up, choreography and improvisation. These elements are based on ballet class composition. And classes are open to any persons with PD, as well as their family, friends, and caregivers of any age or ability. The class allows participants to explore the range of physical and creative possibilities that are still very much open to them. It's not about therapy, but about the technique and fun of dancing. Ballet may offer benefit to people with Parkinson's through its intellectual, artistic, musicality, social and physical aspects.

Imagine entering a dance studio and seeing a group of male and female dancers hard at work creating a complicated pattern of concentric circles, moving gracefully to the strains of the Waltz of the Flowers from Tchaikovsky's The Nutcracker. Or perhaps the dancers are tapping their toes, stretching their arms and smiling to the beats of Big Band classics. Concentration and joy fill the studio. The act of dancing together allows people to learn together, talk together, be inspired by each other, and explore creative and physical possibilities through dancing

## **HOW TO IMPLEMENT A BALLET DANCE PROGRAM**

In order to develop a successful ballet dance program for people with Parkinson's, some conditions must be considered. In particular, the following two are important:

### *Finding a qualified ballet teacher*

It is important to find a professional ballet teacher with a great deal of experience in teaching a variety of populations, along with a passion to give back to the community. The potential ballet teacher should keep in mind that this is not solely an exercise regime, but the main focus of the program is arts-based. Despite benefits of exercise a dance class provides, the class should be focused on the aesthetics, creativity, and cognitive and emotional skill development.

### *Incorporation of live music*

Music is a very important component of the ballet classes. It allows for the rhythmicity of the movements, and also builds an atmosphere for the character of the dance. The pace and quality of the movements are determined by music. Although there are many ballet classes that use recorded music, live music (e.g., piano, drums) add to the experience as the musicians can change the tempo and the accents of the song depending on the choreographical demands and the participants' needs. Live music can also set the mood (dramatic, uplifting, romantic, exciting, etc.) that is appropriate for the story-telling or improvisation piece that is being performed. Although music was identified as a possible aid to fluency of movement, many more participants highlighted

the emotional and uplifting aspect of ballet music as a motivating factor.

#### *Expression/ Ability to express my Personality*

Expression is a key element of ballet. Much ability to express is lost with the progression of Parkinson's. People can lose expression in their faces, in their voices and in their movement. Added to this is often less opportunity to express themselves through, for example, a lessening of social engagements or an inhibition to move in the way that might highlight Parkinsonian symptoms.

Other key component of the class is the various techniques of imaginary representation used to teach ballet, which help dancers initiate, sustain, and develop their movement. The set of choreography and improvisations executed in class, whether seated or standing, promote creativity, expression, connectivity, musicality, and a sense of joy in being in control of one's own movement.

For people with Parkinson's disease, high quality dance classes led by trained professional teaching artists are becoming internationally acknowledged and valued as both a creative activity and an evidence-based therapeutic intervention. From my own dancer's perspective, these classes are a beautiful and satisfying way to authentically share my own experience and passion for the art form in way that also connects to community.

### **BALLET AS ART AND INDIAN DANCE**

Ballet is the basis of all dance. Basic body positions, barre, stretching, center work, proper alignment, will help the dance increase flexibility, build strength and gain grace. We therefore encourage all dance students to receive. Furthermore, Ballet is a culturally rooted art form and Ballet is now danced around the world. Stories, images and rhythms are essential for dance as an art form. Indian dance, such as Kathak, Bharatnatyam, Garba, Bhangra, also have all these elements. Therefore Indian dance, in its various forms, is incredibly powerful as a medium for this particular operation. But the population ratio is very different. We are not discussing which dance is better. However people can relate to it more when we use a culturally specific dance form.

The art, including ballet is for everyone. All people living in India can easy access to quality art. Considering the diversity of the country of India, how many people are involved through ballet is also a very important factor. It is important to bring change to people through all the benefits of ballet. Dance benefits include maintaining people's health, not just those with problems such as Parkinson's disease. The ultimate goal is to enrich life through ballet.

### **CONCLUSION**

Dance and movement therapy is one of the excellent complementary or adjunct therapy options for people with Parkinson's and it has the potential to reduce the need to use other medical

services. Dancing takes its place as a useful physical activity alongside other activities provided for people with Parkinson's. And, dance is a highly valuable activity with transforming qualities for the health and wellbeing of those with PD. We conclude that dancing helps people with Parkinson's nurture an active lifestyle, not just physically, but also socially.

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## BUSINESS INTELLIGENCE AND DECISION MAKING INFLUENCE BANCASSURANCE SYSTEM

\* Soumen Nanda

\*\* Prof Barada Prasad Bhol

\*\*\* Dr Santa Misra

### Abstract

*Business Intelligence. & Decision making play a vital role in the domain of successful business system in the organizational sectors. Business Intelligence (BI) is identified as a tool & technique of decision making Style (DMS) which has an impact on business strategies. This study is an attempt in exploring how Business intelligence and decision making style of a person are influencing Bancassurance policies in banking sphere of different nationalized banks in India and Netherlands. Bancassurance is a collaborative relationship between a bank and an insurance company. It is the insurance distribution model where insurance company and bank join together to sell insurance product to customer of the bank, that aims at providing customers' satisfaction in same platform, by keeping the money in the bank and availing the different insurance benefits from the same bank as well.*

*In this study a quantitative survey-based analysis is made to represent the relationship between BI capabilities, decision support benefits, and organizational benefits in context of banking environment on Bancassurance system. On this basis, 120 (N=120) subjects randomly selected from 1260 population, from nationalized banks of India and Netherlands, (n = 60 in each group), and were administered the BI and DMS questionnaire. The finding of the study revealed that BI has a strong impact on DMs on the process of availing Bancassurance system. The study implicates effective and useful insights for investors and business owners to utilize more appropriate BI tools and functions to reach more idealistic organizational advantages. Also it enables managers to have better understanding in the application of BI functions in the process of achieving the specified managerial support benefits on Bancassurance policies.*

**Key Words :** Bancassurance, Business Intelligence and Decision Making Style

\* Research Scholar, [soumennanda@gmail.com](mailto:soumennanda@gmail.com)

\*\* Registrar, ISBM University, Chhatisgarh, INDIA. [baradaprasadbhol@gmail.com](mailto:baradaprasadbhol@gmail.com)

\*\*\* Associate Professor and ex - Principal SSS College for Women, Bhubaneswar, Odisha, India, [dr.santamisra@gmail.com](mailto:dr.santamisra@gmail.com)

## INTRODUCTION

Research findings indicate that there is a strong relationship between Decision support (DS), as a traditional management that has a remarkable role in competitiveness or survival of organizations and nowadays, business intelligence (BI), a modern impression, has various contributions in supporting decision-making process (Rouhani,et.al.,2016).

From among the different types of intelligence, like Fluid Intelligence (FL)logical intelligence (LI), crystallized intelligence (CI), Emotional intelligence (EQ) spiritual intelligence (SQ) ,etc., that influences our behavioural output, Business Intelligence (BI) has effective contributions in supporting decision-making process that helps the organizational out put .

Business Intelligence is one of the important factor in business administration. It is the strategies and technologies used by the enterprises for the data analysis of business information . ( Dedić& Stanier ,2016). Identifying new opportunities and implementing an effective strategy on them based on insights, can provide businesses with a competitive market advantage and long-term stability (Rud,2009). Amongst its various uses, business intelligence helps organizations to gain insight into new markets, to assess demand and suitability of products and services for different market segments and to gauge the impact of marketing efforts (Chugh & Grandhi,2013). To say it in other words the term Business Intelligence (BI) refers to technologies, applications and practices for the collection, integration, analysis, and presentation of business information. The purpose of Business Intelligence is to support better business decision making style in human resource management. Essentially, Business Intelligence systems are data-driven Decision Support Systems (DSS). Business Intelligence is sometimes used interchangeably with briefing books, report and query tools and executive information systems.

Currently organizations are starting to see that data and content should not be considered separate aspects of information management, but instead should be managed in an integrated enterprise approach. Enterprise information management brings Business Intelligence and Enterprise Content Management together. Currently organizations are moving towards Operational Business Intelligence which is currently under served and uncontested by vendors. Traditionally, Business Intelligence vendors are targeting only top the pyramid but now there is a paradigm shift moving toward taking Business Intelligence to the bottom of the pyramid with a focus of self-service business intelligence.

Thus to popularize the BI in grass root level ,Self-Service Business Intelligence (SSBI) is noteworthy to focus .Self-service business intelligence (SSBI) involves the business systems and data analytics that give business end-users access to an organization's information without direct IT involvement. Self-service Business intelligence gives end-users the ability to do more with their data without necessarily having technical skills. These solutions are usually created to be flexible and easy-to-use so that end-users can analyze data, make decisions, plan and forecast on their own. Companies such as *PARIS Technologies* have taken an approach to make Business Intelligence an easily integrated tool for other end-user tools such as Microsoft Excel, Access, Web browsers and other vendors.



Studies also indicate that Business Intelligence influences the decision making in organizational sectors, integrating different approaches in the neurodevelopmental perspective in administrative sphere (Md. Shamsul,et.al., (2015); Mohamad,et.al., (201) Saeed, et.al., (2016);

**Decision Making Style** (DMS) is a cognitive process resulting in the selection of belief or course of action among several possible alternatives based on: (1) individuals way of thinking (some people tend to be rational, logical in the way they think & some are cognitive & intuitive); (2) individuals tolerance for ambiguity (some people have low tolerance &some others have high tolerance for ambiguity) and (3) value based socio cognitive strategies. ( Misra, 2016).

Some proposed models of decision making with some specific components are given below that dominate our decision making process throughout our life span in different spheres of life management and in organizational set-up.

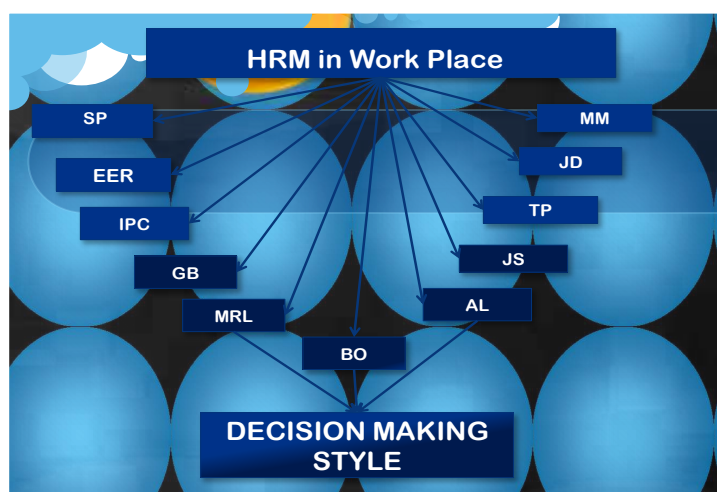


Figure 1: The Proposed Model for HRM in work place, that contribute to, creative and better decision making style ( Misra , 2015)

Components essential for good decision making in organisational sectors given in figure are :SP- Spirituality, EER-Employee-Employer Relationship, IPC-Inter Personal Communication, GB - Group Behaviour, Mrl- Morale, BO- Biological basis of the Organism ,Al- Altruism,JS- Job Satisfaction, TP- Task Procedure, JD- Job Demand, MM – Metacognitive Manifestation

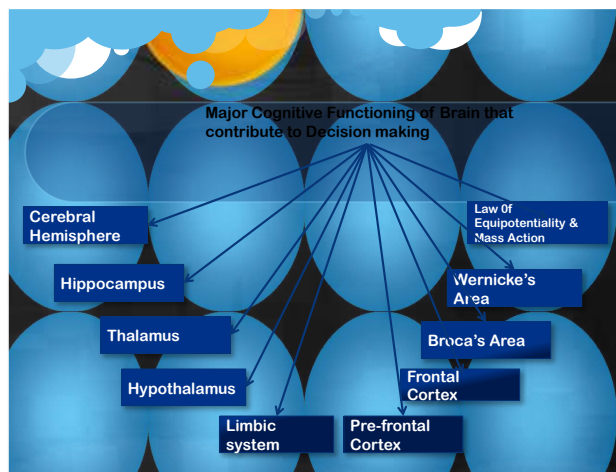
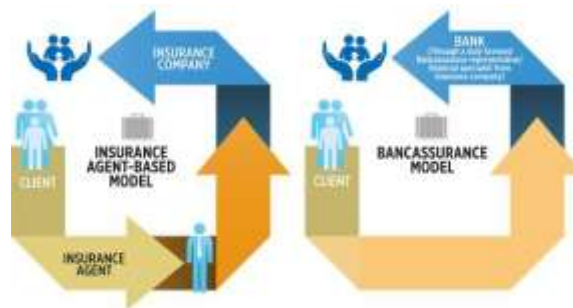


Figure 2: Major cognitive Functioning of Brain



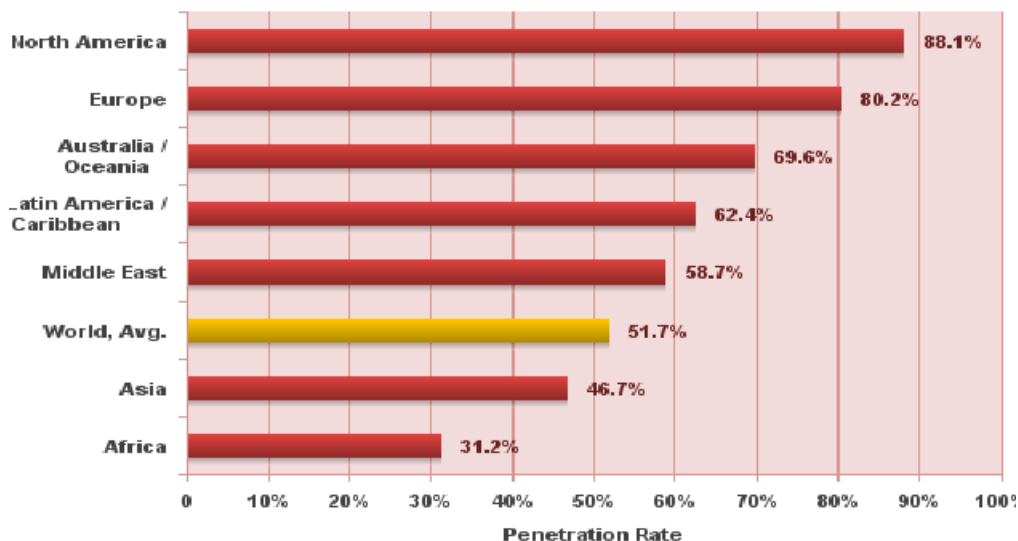
Figure 3: The proposed Model of decision making with some specific components that dominate our decision making process

The implementation of Bancassurance activity in the banking field contributes to the Strengthening of the competitive environment, like, the development of new products in insurance and the higher satisfaction of the consumer's needs. The strategic priorities of banks are to increase business protection according customer's needs, by adding new products to their portfolios ( **MARZAI**,2018)



**Figure 4. The process of concluding insurance policies through Bancassurance**

*The distribution of insurance in the bancassurance system is a future solution and will continue to develop throughout the world*



**Figure 5 .Internet World Penetration Rates by Geographic Regions-June30, 2017**

Source: Internet World Stats-[www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm).

India has low penetration and density in terms of insurance when compared globally. With the liberalization of the insurance sector, the concept of insurance is gaining momentum and Bancassurance as a channel of distribution in India is relatively new. The efficiency, effectiveness, operational efficiency, profitability of Bancassurance in European countries has been established, while in India Bancassurance is yet to gain momentum. With the initiatives of the government and growing awareness among the public on the need for insurance, willingness to buy insurance products etc are found to be on the increase. India with a huge young population is set to provide ample growth opportunities for Bancassurance since the younger generation is more digital and seek one-stop solution for their needs (Prava Devi,2019).

Considering the sensitive factors of financial deregulation ,globalization, and the dynamic competitive scenario in banking sectors, banks are developing new business models in order to gain competitive advantages over their competitors. Out of which an important one is “bancassurance” (Malik, 2014). Bancassurance is a combination of the term “Bank” and “Insurance.” It is a business model that refers to the selling of insurance policies through a bank’s established distribution channels (Aggarwal, 2004). It is the concept of a bank selling insurance plans along with a complete range of banking and investment products and services (Venugopal, 2011). Here, the bank simply plays the role of an intermediary for sourcing business to the insurance company( Singh and Chaudhury, 2017). Through bancassurance channel, bank earns significant non-interest income in the form of commission.

Customers’ perception is formed through its customers’ assessment of the quality of service provided and their satisfaction level with its overall service (Zeithaml & Bitner, 2003). Customers’ perception with respect to a bank means the customers’ overall picture of the bank, including bank’s image, expectations, external influences, service quality, and so forth. All interactions that occur between the customers and the bank will ultimately affect the customers’ view and image of the bank. All that the customers see, hear, and experience are linked together and form their overall perception towards the bank (Aspfors, 2010).

The attributes that can affect the Bancassurance policies can be as given below.



Figure 1.1: An overview of the CSM process

Besides Compliance, tangible Infrastructure, Reliability, Responsiveness and Assurance also effective variables that contribute the effectiveness of Bancassurance.

## RATIONALE OF THE STUDY

Exploration of customers perception, intelligence and attitude towards bancassurance models is noteworthy to discuss. Besides Bank has to consider the need of the customer and the need of the customer is dependent on how they perceive the services provided by the bank (Zemke & Woods, 1998) that helps in taking decisions towards the system (Boulding, et.al.,1993),

## OBJECTIVES

Thus the purpose of this paper is to explore the relationship between Business intelligence and Decision Making Style benefits, in context of Bancassurance in nationalized banks of Netherlands and India

## METHODOLOGY

**Sample:** 120 subjects (60 in each group), randomly selected from 1260 population, from nationalized banks of India and 900 population of Netherlands.

### Tools used:

- BI Questionnaire
- DMS Questionnaire

**Procedure:** All the subjects wren randomly selected and individually administered the Questionnaires in their personal set up. The results were analyzed by using the correlation analysis between the components of BI and DMS which were ultimately compared with the rate of availability in *Bancassurance* activity in the banking field, collected from a survey method in India and Netherlands.

## RESULTSAND DISCUSSION

### RESULTS

Statements	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
1 I enjoy in making decisions	2	4	5	5	5	5	5	5	5	5	5	5
2 I rely on 'gut feelings' when making decisions	4	4	2	4	2	2	2	4	4	4	4	4
3 I take my decisions as it comes in its way	4	5	3	4	3	3	3	3	3	3	3	4
4 When I find one option that will just about do, I never leave it at that time	3	4	2	3	2	2	2	3	3	3	3	2
5 I usually remain calm when I have to make decisions very quickly	2	4	4	4	5	5	5	5	5	5	5	5
6 I use to feel in control of things about a task	3	3	4	3	2	2	2	4	4	4	4	4
7 I often use decision governed by my ideals regardless of practical difficulties	1	3	2	3	3	3	3	3	3	3	3	4
8 I never make decisions without considering all of the implications	2	5	5	2	2	2	2	3	3	3	3	2
9 Always I change my mind about things that is logical	3	5	4	4	5	5	5	5	5	5	5	5
10 I use to take the safe option if there is one	2	3	3	2	2	2	2	3	3	3	3	2
11 Before taking a decision I plan well ahead	2	3	4	2	5	5	5	5	5	5	5	5
12 When making decisions do I prefer favoring first one option then another	1	3	3	3	5	5	5	5	5	5	5	5
13 I carry on looking for something better even if it is found that a course of action that is just about 'OK', which is not justified.	3	4	4	3	2	2	2	4	4	4	4	4
14 It is difficult to think clearly to decide about something in a hurry	2	5	2	2	3	3	3	3	3	3	3	4
15 I prefer to use my own mind about things regardless of what others think	3	3	4	4	2	2	2	3	3	3	3	2
16 I use to work out all the pros and cons before making a decision	2	3	4	3	5	5	5	5	5	5	5	5
17 I take my decision in a deliberate logical process	3	3	4	2	3	3	3	3	3	3	3	4
18 When I take decision I tend to rely on my intuition.	4	4	3	4	5	5	5	5	5	5	5	5
19 I rarely take important decisions without consulting other people	4	4	4	4	2	2	2	4	4	4	4	4
20 When I make a decision, it is more important for me to feel the decision is right than to have a rational reason for it.	4	4	2	4	3	3	3	3	3	3	3	4
21 I double check my information sources to be sure I have the right facts before making decisions.	3	4	4	2	2	2	2	3	3	3	3	2
22 I use the advice of other people in making my important decisions.	3	5	4	4	5	5	5	5	5	5	5	5
23 I put off making decisions because thinking about them makes me uneasy	2	3	1	1	3	3	3	3	3	3	3	4
24 I make decisions in a logical and systematic way.	4	4	3	3	5	5	5	5	5	5	5	5
25 I generally make sharp decisions.	3	3	4	4	2	2	2	4	4	4	4	4
26 I like to have someone steer me in the right direction when I am faced with important decisions.	2	4	2	3	3	3	3	3	3	3	3	4
27 My decision making requires careful thought	3	4	4	3	5	5	5	5	5	5	5	5
28 When making a decision, I consider various options in terms of a specified goal	5	3	4	4	2	2	2	4	4	4	4	4
29 I often make impulsive decisions	2	3	3	4	3	3	3	3	3	3	3	4
30 When making decisions, I rely upon my instincts	4	4	3	4	2	2	2	3	3	3	3	2
31 I generally make decisions that feel right to me	4	4	4	4	5	5	5	5	5	5	5	5
32 I often make decisions on the spur of the moment	2	3	3	4	5	5	5	5	5	5	5	5
33 I often put off making important decisions	2	3	2	2	2	2	2	4	4	4	4	4
34 I often need the assistance of other people when making important decisions	4	4	2	2	3	3	3	3	3	3	3	4
35 I postpone decision making whenever possible	2	2	1	1	1	1	1	1	2	1	1	1
36 I generally make important decisions at the last minute	1	3	1	3	2	2	2	1	3	2	1	3
37 I make quick decisions but based on my thinking and cognitive abilities.	3	4	4	4	3	3	3	3	3	3	3	4
38 I believe in "It for Ta"	4	1	3	3	2	2	2	3	3	3	3	2
39 Most of the times, my intuition proved to be correct.	3	4	4	4	5	5	5	5	5	5	5	5
40 I used to take decision as desired by social norms.	2	3	2	2	3	2	2	3	3	3	3	2

Result Table 1 - showing a sample response collected from respondents

Groups	Mean	SD	t' value
India	37.02	20.1	3.69 *
Netherlands	47.02	25.42	

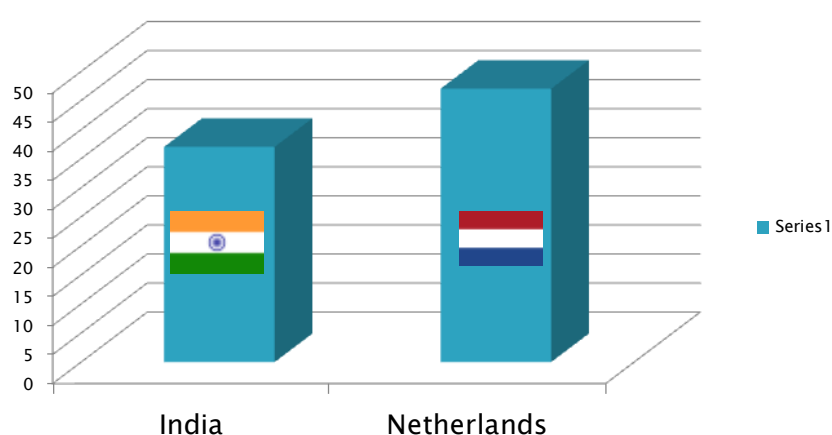
\*  $P > .01$  (Significant at .01 level)

**Result Table – 2 below showing mean difference between the two groups with regards to Business Intelligence**

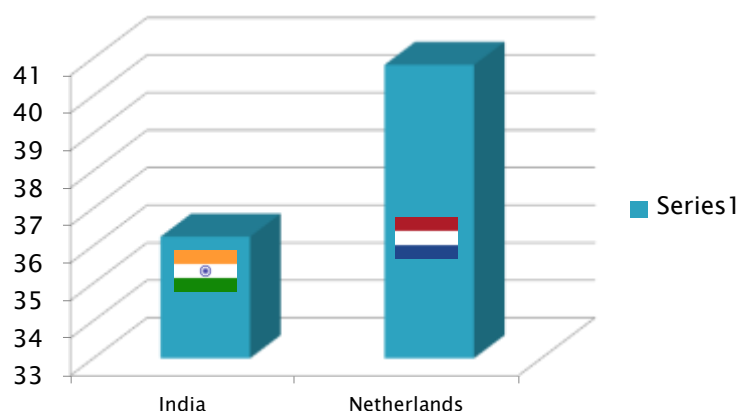
Groups	Mean	SD	t' value
India	36.24	18.2	9.02 *
Netherlands	40.82	20.2	

\*  $P > .01$  (Significant at .01 level)

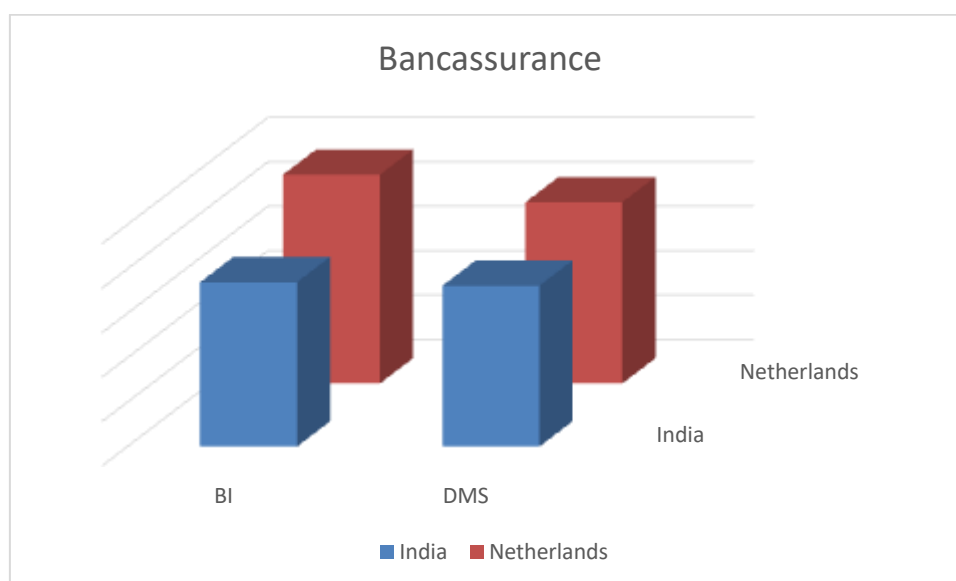
**Result Table – 3, showing mean difference between the two groups with regards to Decision Making Style**



**Figure - 1 : Showing the Mean difference on BI between Eindhoven of Netherlands and Odisha of India**



**Figure - 2 :Showing the Mean difference on DMS between Eindhoven of Netherlands and Odisha of India**



The analysis was made following the primary and secondary data .

## CONCLUSIONS

The focus of this study was to emphasize a better understanding of the Bancassurance concept; the idea on impact of business intelligence on DMS; the effect of decision making style on bancassurance activity, and the trend of changing customer behavior towards Bancassurance as an outcome of BI and DMS.

### Implications

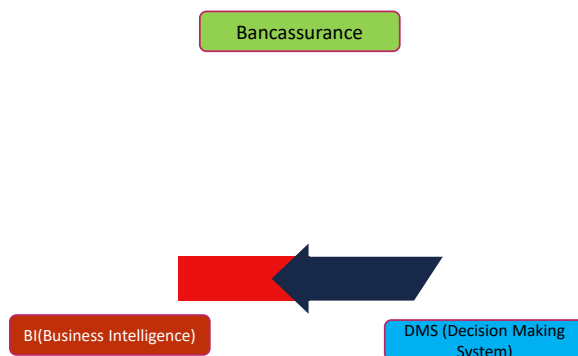
The study can contribute towards existing scholarship in the following mode;

- Business Intelligence affects Decision making style of a person
- Business Intelligence and Decision making contribute to accept Bancassurance policies both for the customers and employees in banking sectors

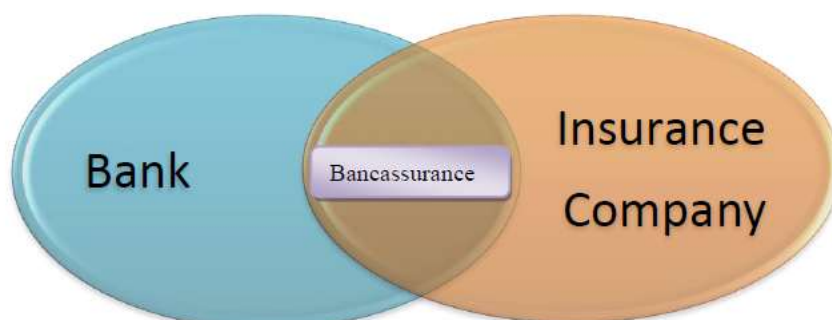


- More studies must be done to measure the effectiveness and profitability of the Bancassurance channel in global level .
- The components of BI , DMS, and Bancassurance should be focused in the analysis so that they can be fostered in the hierarchy of organizational sectors.

#### A Model to Incorporate Bancassurance



#### IMPLICATION



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## A STUDY ON ACADEMIC STRESS AMONG ADOLESCENTS BOYS AND GIRLS

\*Mr.Sangram keshari Dash

### Abstract

*The purpose of the present study was to compare the academic stress among adolescents boys and girls. Rao's Academic Stress Scale -2008 developed by B. Rao employed to assess the academic stress of the adolescents boys and girls. The study was carried out on a sample 130 adolescents (13-19 years) boys and girls. The data so collected was analyzed using statistical measures of Mean, Standard Deviation and "t" test. Form the results it was found that though there was some visible difference between the gender groups (boys and girls) on academic stress levels it could not be substantiated significant at 0.05 levels.*

**Key Words:** - Stress, Academic Stress, Adolescents.

*\*Lecture in Psychology, Angul Mahila (Digree) Mahavidyalaya, Angul, Email-[skdpsycho@gmail.com](mailto:skdpsycho@gmail.com) Mob-9556161802*

### INTRODUCTION

Education is a dynamic process it has continued to evolve diversifies and extends its reach since the dawn of human history. Every country develops its own system of education to express and promote its unique socio-cultural identity as well as to meet the challenges of the times. Human being is a precious natural resource. She/he needs to be cherished, nurtured, and developed with tenderness and care. Throughout history education has been playing vital role and has contributed a lot in shaping the destinies of societies in all phases of their development. More importantly, education develops man power for different levels of the economy. Also, it is the substrate on which research and development, flourish, being the ultimate guarantee of national self reliance in essence, education is to be looked upon as a unique investment in the present and the future.

### Definition Of Key Terms

#### STRESS

"Stress is a state of manifested by a specific syndrome which consists of all the nonspecifically induced changes within the biological system." (Selye)

#### ACADEMIC STRESS

"Academic stress as a mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failures." (Berstein 2008)

#### ADOLESCENTS

The World Health Organisation (WHO), 2015 offers the definition of adolescence as "the period in

human growth and development that occurs after childhood and before adulthood”.

### **RATIONALE OF THIS STUDY**

Academic stress is a crucial problem of a student life in the present scenario. Our education system has loaded the curriculum, examination fear, neck-to-neck competitions, peer and parental pressure and tons to their problem. The findings of doctors, psychotherapist, and child psychologist reveal that student's especially higher secondary school students experience anxiety. Stress and depression due to academic pressure. Hence, the researcher opted this study to find out better solutions, provide guidance, and plan strategies for teachers, parents, and students in order to help them cope with academic stress.

However, it is observable that so many studies were conducted on academic stress in foreign countries. It is seen that in India, very few studies were conducted in the area of academic stress among adolescents. Moreover, no study has been yet in Odisha to assess academic stress. By keeping in mind the above requirement in the field, the researcher decided to take up a study on academic stress among adolescent's boys and girls.

### **OBJECTIVE**

The investigator of the present study framed the following objectives: To compare the academic stress among adolescent's boys and girls,

### **Hypotheses**

The investigator of the present study framed the following hypotheses:

1. There is significant Mean difference between adolescent's boys and girls students with respect to academic stress.
2. There is significant gender difference between adolescent's boys and girls students with respect to academic stress.

### **METHOD OF STUDY**

The present investigation intend to make a comparative study of the a academic stress among adolescents boys and girls. The present study was to compare the academic stress among adolescents boys and girl.

### **Sample Design**

For the present study a sample of 130 (65 boys and 65 girls)adolescents students selected in different areas of Angul district .

As for as possible equal number of adolescents boys and girls were included. Age, gender, class, was taken into account.

## Tool

The data for the present investigation was obtained using the following tools.

### Personal Data Sheet

Personal data sheet was developed for the present investigation to obtain general information regarding subjects age, sex, class, native place, school/collage name, data of birth.

### Rao's Academic Stress Scale.

The Rao's Academic Stress Scale (2008) was used for the assessment of academic frustration, conflict, pressure, and anxiety of adolescents boys and girls. The scale developed by Rao, consists of **40** items to measure academic frustration, 8 items to measure academic conflict, 12 items to measure academic pressure, and 8 items to measure academic anxiety. Relating to each statement, the student is required to give a response as "NS", "SS", "MS", "HS" or "ES" depending on whether he / she feels "NO STRESS" "SLIGHT STRESS" "MODERATE STRESS", "HIGH STRESS", or "EXTREME STRESS" about the statement the value of the responses are **0,1,2,3,4** for "NS", "SS", "MS", "HS" or "ES" respectively. A student's academic stress score on each attribute is found by adding the scores in that attribute and finally the total score is obtained by adding the score of the attributes. Higher score implies higher academic stress.

Academic Stress Score	
Scores	Rank
<b>40 to 93</b>	<b>Low</b>
<b>94 to 146</b>	<b>Moderate</b>
<b>197 to 200</b>	<b>High</b>

## PROCEDURE

With due permission from the headmaster of the school the researcher randomly selected students. Then, the researcher called the subjects one by one to a calm and quiet place in the school provided by headmaster. After properly interacting with the subject, the researcher said to them "Here is an opportunity for you test your academic stress level which will be very useful for your study in the future", each subject was told to go through the items no. – 1 in the scale, and properly understand the statements items. Likewise, the researcher rated all the 40 items in the scale after having enough discussion with the subjects. Then, he / she is required to put a tick mark in the desired column in the right side of each statement. Finally the researcher giving a vote of thanks to all the participants, who participate in the data collection.

### Statistical Techniques Used

In the present study, the statistical techniques used were as under:-

- Mean
- Standard Deviation
- Significance of Difference Between Means (t-test)

### RESULTS

#### Academic Stress Among Boys And Girls

The result of Mean and Standard Deviation of the academic stress scores turned out to be significant are presented in Table- 1, and the results of 't' test corresponding to academic stress experienced by adolescents boys and girls presented in Table-2 .

**Table-1**

**SHOWING THE MEAN AND STANDARD DEVIATION OF ACADEMIC STRESS SCORES OF ADOLESCENTS BOYS AND GIRLS.**

GENDER OF THE ADOLESCENTS	N	MEAN	STANDARD DEVIATION
BOYS	65	55.17	14.77
GIRLS	65	55.46	14.96

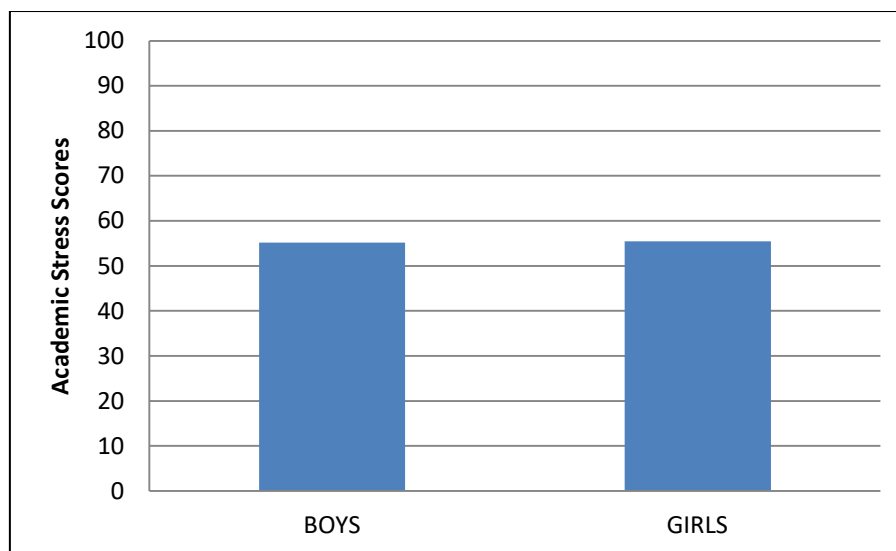


Fig 1.1 Mean of Academic Stress Scores.

**Table-2**

**A “t” TEST PERFORMED ON THE ACADEMIC STRESS OF THE ADOLESCENTS BOYS AND GIRLS.**

GENDER OF THE ADOLESCENTS	MEAN	STANDARD DEVIATION	df	“t” VALUE
BOYS	55.17	14.77	128	0.11
GIRLS	55.46	14.96		

P> 0. 05

**DISCUSSION AND CONCLUSION**

As pointed out by several authors in the review of literature that academic stress of adolescents boys and girls was significant, it is interesting to know the extent of such academic stress among adolescents boys and girls in Angul, Odisha, is insignificant. The present study carried out in the different areas of Angul district, Odisha, and the objective to compare the academic stress among adolescent boys and girls. In this study 65 adolescents of each gender were taken. The Rao's Academic Stress Scale (2008) (develop by B. Rao, 2008) was administered and the “t” were used as the statistical techniques to analyses the data. The important conclusions drawn from the study are:

Table-1 and Figure 1.1 indicates that , the mean academic stress scores for adolescents boys are 55.17 (S.D . =14.77) and for adolescents girls are 55.46 (S.D, =14.96) respectively. So, the mean score of academic stress of girls is significantly higher than that of boys. Therefore, the hypothesis that, there is significant mean difference between adolescent's boys and girls with respect to academic stress is accepted.

From Table – 2, it is observed that the calculated “t” value (0.11) is smaller than the table value (1.66 at 0.05 levels). That is to say that, the difference between the two groups (Boys and Girls) is not significant at 0.05 levels. Hence, the hypothesis that, there is significant gender difference between adolescent's boys and girls is rejected.

However, while analyzing the mean difference on academic stress, it was found that girls had more academic stress than the boys indicated in Table-1 and Figure-1.1. Similarly, while analyzing the gender difference on academic stress, such difference was not found to significant as indicated in a “t” test (see Table -2). Thus , I can conclude here that, statistically insignificance indifference does not highlight any gender effect. Also, I can conclude here that due to small sample size and the inherent problems in collecting data might have affected the results for which the hypotheses could not be verified .



## LIMITATIONS

Though a lot of care had been taken to complete the study and efforts have been made to overcome the difficulties, there still remained certain limitations. A few such are as follows:

- ❖ The sample size was small which made generalization of results somewhat questionable.
- ❖ The data have been mostly collected from urban places.
- ❖ There are many safety and security burden.
- ❖ The study sample is distributed in wide geographical area.
- ❖ Some students are refused participate in the study.
- ❖ Lack of literature and previous studies relative to the academic stress among adolescent's boys and girls.

## SUGGESTION

Considering all these limitations, some suggestions can be given for further research on the some problems like:

- ❖ Sample should be large enough.
- ❖ The data have been equally collected from urban and rural places.

Finally as a psychology student, I conclude on the above studies may have far-reaching implication and may be useful in the formulation of policies to provide effective support services for adolescent's boys and girls.

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## SPECIAL LEARNERS-INTEGREATED & INCLUSIVE EDUCATION

\*Mrs. Jyotirmayee Paschimira

### Abstract

*Having special abilities those are different from normal individuals and require extra privileges & helps for their independent living in all sphere of life called as special learners. To bring them towards mainstreaming process different legal policies and schemes shout their development providing mainstreaming environment in education as "Education is a fundamental Rights" for all children in our country. The term "Integration" means integrate nearer to normal learners with disabilities and normal children in same educational settings. Inclusive education revels that all learners with special needs will be included in general system of education irrespective of their exceptionality and normality. The philosophy of "zero rejection policy" is adopted by inclusion. In this review, therefore, opinion on effect of inclusion on both students with disabilities and without special educational needs is described. Although inclusion brings negative impacts still then social & academic achievement of students with or without disabilities is better in an inclusive environment however individual difference is among high and low achievers.*

**Key Words :** Special learner, Integrated education, Inclusion, Inclusive education ,Mainstreaming, Exceptional learner.

\* Asst. Prof. in Special Education, J.I. Chetna College of Special Education, BBSR  
E mail : babyguga74@gmail, Mobile no. 9437694675..

### INTRODUCTION:

Special learners are different from average students and need extra privilege and opportunity to full fill their unique needs accomplishing independent living. Owing to their exceptional ability they are otherwise known as "Exceptional Learners". Giving importance on their extra ordinary abilities they have been classified as; "Talented group" and "problem group" in seeing, hearing, reasoning, speaking and socializing.

"Talented learners are gifted children. But problematic children are recognized as children with disabilities. As exceptionalities are present with them really they were never getting equal benefit in normal system of education with normal peers in previous days. If we turn over to the past history then for their education and service different special schools were established for Children with Hearing Impairment(CWHI), Children with Visual Impairment(CWVI), Children with Intellectual Disability(CWID) and Children with Cerebral Palsy(CWCP).

Although special schools are real places for their education and service but they were abandoned as well as deprived from normal life. Hence, to provide equal educational opportunity and to achieve the goal of mainstreaming process different legislative provisions are made in different times in our country. For their security and welfare Acts, Schemes, programs are real path

to enjoy their equal democratic life. For this both “Integration” & “Inclusion” dynamic and effective model have evoked.

The term integration implies that it is the process of interaction of nearer to normal children with disabilities and normal children in the same educational setting.

Inclusion refers to all children with special needs are to be included in normal system of education with normal peers irrespective of their exceptionality. As Inclusive education is a useful model of 21<sup>st</sup> century it has been providing benefits both and bridging all gaps among children with special needs & normal learners.

Although it is an effective, unique and dynamic emerging trend in modern era still then it is running with different challenges.

### **Integrated Vs Inclusive Education:**

Many people think that these terms mean the same meaning but they have slightly different. The very known term “Integration” signifies that it is a process of interaction of nearer to normal children with disability and normal children in full time or half time basis as per requirement of child in same educational setting.

On this view the definition given by “Stephens & Blackhurt “that Mainstreaming is the education of mildly handicapped children in the regular classroom. It is based on the philosophy of equal opportunity that is implemented through individual planning to promote appropriate learning, achievement & social normalization.

It has been seen that there are two synonymous terms used in Integration such as; “Mainstreaming” & “Normalization”.

“Mainstreaming” It is a process through which nearer to normal learners with disabilities are integrated with normal peers in regular class & helping them through specialized techniques.

Again, sometimes the term “Integration” is interchangeably used with Normalization. It means the learners with disabilities are treated as normal children.

Moreover, integrated education is an educational system where exceptional learners attend classes with normal children in part time or full time basis as requirement of learner and activities for social & academic integration.

Irrespective of person’s exceptionality and normality inclusive education is an appropriate as well as useful model who adopts, provides all educational rights and also opportunities to prepare an independent life.

In order to bring them (children with special needs) towards mainstreaming process inclusive education is an effective way in recent days. As special learners are on last bench of

society the term “Inclusion” has emerged and activated in 21<sup>st</sup> century to give respect of legal policies. The dynamic term Inclusion shares equal opportunities, enriches the personality & makes independent to all individuals who are running with educational process.

Inclusion is a unique term having opportunity to include all. Regardless of their exceptionality (class, creed, gender, and condition and socio- economic status) and normality all students will be included in normal system of education to enjoy their fundamental rights with help of the community.

Hence, “Zero rejection policy” is accepted by Inclusive education. No child will be rejected is the philosophy of inclusive education. The slogan of inclusive education is

“Education for all “ .

“Learn together and grow together”.

“Hold each other’s hands and come forward”

<b>Integrated</b>	<b>Inclusive</b>
<ul style="list-style-type: none"><li>• Child – Normal &amp; nearer to normal.</li><li>• School- Integrated.</li><li>• Teacher- Resource &amp; General Teacher.</li><li>• Curriculum – Subject oriented.</li><li>• Methodology- Subject centered.</li></ul>	<ul style="list-style-type: none"><li>• Child- Remaining as he is.</li><li>• School- Inclusive.</li><li>• Teacher- General Teacher.</li><li>• Curriculum – Learner oriented.</li><li>• Methodology –Child focused.</li></ul>

So, it is concluded that normal and nearer to normal children with disabilities are included in integrated set up in part time or fulltime basis to achieve the goal of mainstreaming movement. It is proved that, integrated education is the foundation of inclusive education. So mainstreaming movement is the mother of both dynamic terms ‘integration’ & ‘inclusion’. We can say Inclusive education is up gradation of integration.

### **Legislative Provision:**

It means different types legal policies related to Inclusive education. If we analyze the history owing to lack of knowledge, ability, educational access and technology children with special needs were treated as unwanted, segregated from other children. Their education was carried out and limited within four wall classroom of special school.

- As per advice of the United Nation Educational, Scientific and Cultural Organization(UNESCO),1994 there has been drastic changed in the field of education specially for children with special needs. Giving respect to the declaration of UNESCO Inclusive education has emerged in field of education. So different legislative provisions are made in our country to provide appropriate, need based education and service to all students with disabilities in a mainstreaming environment by the help of community to attain the goal of equal opportunity& secure their fundamental rights, such as ;

**NPE,1986:**National Policy on Education,1986.

The term Integration & Inclusion have been reflected prominently in NPE, 1986 and its revised edition Program of Action, 1992.

**RCI Act,1992:**Rehabilitation Council of India (It relevance to education) Act,1992.

According to RCI Act,1992 all students with disabilities have to get appropriate education with trained professional as per their requirement and priority.

**PWD Act, 1995:** Persons with Disabilities (Equal opportunity, Protection of Rights and Full Participation) Act, 1995.

As per the Act no child should be excluded from equal opportunity. The conscious citizen should protect their rights and give respect for enjoying their democratic life.

**86<sup>th</sup> Amendment of our constitution,2002:**

The view of Article21 (A) “*Education as a Fundamental Rights*”. It advocates that “Free & compulsory Education” to all children regardless of their class, creed gender and condition.

Not only different Acts but various central sponsored schemes are made by Govt. of India as;

**IDEA:** Integrated Education for the Disabled. According to IDEA only mild all students with disability will be integrated in mainstreaming education.

**SSA, 2000: SarvaSikshyaAbhijan, 2000**

The flagship scheme provides free & compulsory education to all children at elementary level. The slogan of **SSA** is “Education for all” to make universalization of elementary education.

**RTE, Act, 2009:** Right to Education Act, 2009

As per RTE, 2009. Full time elementary or satisfactory quality education in normal school.

**RMSA, 2009:**RastriyaMadhyamikaSikshyaAbhijan, 2009.The motto of RMSA is all students will get equal educational opportunity at secondary level. It eradicates

**Gender, Socio-** economic and Disability barriers to make universalization of secondary education.

**IEDSS, 2009:** Integrated Education for the Disabled Secondary Stage, 2009. According to IEDSS all students with disability will get equal educational opportunity at secondary stage after completion of eight years of elementary education in an inclusive environment.

Really Acts, Programs& schemes are actual way to achieve the goal of “Education is a

Fundamental Rights”. It has been seen that legislative provisions are creator of mainstreaming and inclusive education.

### **Positive Impact Of Inclusion:**

- ❖ Inclusive education provides the opportunity to the children with special needs learn together in a natural environment.
- ❖ It teaches to all about adjustment, acceptance, compassion and cooperation.
- ❖ Learner with special needs may acquire social skills, academic skills as well as other independent living skills.
- ❖ It provides better opportunity for learning.
- ❖ All children are able to be part of their community and develop a sense of belonging.
- ❖ Friendship with non-disabled peers.
- ❖ Peer group plays a role model for academic, social and behavior.
- ❖ It is the better way to abolish the four wall education.
- ❖ It prepares all students for adult life in an inclusive society

### **Barriers To Inclusive Education:**

Inclusive education is not free from barriers that threaten the successful working of inclusive education. Some of the greatest barriers related to inclusive educations are

#### **A. Attitudinal Barriers :**

Negative towards children with special needs due to lack of knowledge.

- Negative remarks towards exceptional ability.
- Unfair comparison about performance of special learners.
- Misunderstanding the condition.

#### **B. Physical Barriers:**

- Lack of infrastructure as per requirement of learners with disability.
- Lack of transportation facility.
- Physical environment that is not accessible.
- Lack of relevant assistive technology or devices.
- Non availability of disability certificate.

#### **C. Pedagogical Barriers:**

- Overcrowding classroom.
- Lack of Rigid curriculum & pedagogy.
- Trained professional.
- Insufficient training to educators to manage diverse environment.
- Evaluation procedure is also rigid.



### **Challenges Of Inclusive Education:**

Having different objectives the dynamic model faces different challenges now a days. Implementing and adapting various strategies challenges can be met. Challenges motivate to overcome the barriers. Following are different challenges of inclusive education as;

- I. To increase enrolment& retention for all students with disabilities in mainstream education system.

#### **Strategies:**

- ❖ Organizing awareness programme in general community.
- ❖ Making provision for enrolment & intervention for all learners.
- ❖ Implement free & compulsory elementary education for all.
- ❖ Improving physical access for all children with special needs in school & educational system.

- II. To provide need based education& other service in mainstream environment in order to improve their abilities & learning.

#### **Strategies:**

- ❖ Prepare of need based curriculum for all special learners.
- ❖ Facilitate in service & pre service training program to all teachers.
- ❖ Availability of different therapy services in diverse environment.
- ❖ Appropriate resource service support.

- III. Support higher & vocational education with creation of barrier free learning environment.

#### **Strategies:**

- ❖ Establishing college or vocational education for young person with disabilities.
- ❖ Implementation of existing reservation quota.
- ❖ Development of physical access for young person with disability in all educational institution.

### **CONCLUSION:**

As Inclusive environment is a wonderful concept but it requires a lot of training, patience and compassion on the part of regular teacher. Because inclusive classroom have students across the educational and developmental disorder ranging from typically severe and profound disabled students. If a number of challenges are in inclusive education still then organizing training programme of teachers is the first step for making inclusive classroom is a successful environment.

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## THE EFFECTS OF PLAY THERAPY ON 'CHILDREN WITH SPECIAL NEEDS':ANALYSIS OF A CASE STUDY

\*Dr.Rinku roy

### Abstract

*This paper is an exploration on the effects of play therapy upon a pre-adolescent child (Age = 9) of special needs with the history of minor criminal incidents, chosen from CHETNA, Odisha. The revised version of the Home Environment Scale by Bradley & Caldwell and Wisconsin Delinquency Risk Assessment Scale were used to obtain information about his home environment and to measure his delinquency risk, respectively. The Aberrant Behaviour Checklist, second edition (abc-2) was used to assess the problematic behaviour so that appropriate play therapy can be provided to the child. The results revealed that home environment significantly influenced the adolescents' delinquent behaviour, lack of feeling of pride about family, lack of affection and warmth of parents, severe physical punishment, strong sibling rivalry, and poor modelling by the parents for the encouragement of maturity, are identified as risk factors for the children with special needs. But when an intervention programme of play therapy for six months were provided to him, an improvement was observed. The delinquency rate and the problem behaviour of the child reduced to its maximum point.*

**Key Words :** *Play Therapy, children with special needs, Delinquency*

\*Research Scholer,,Tilka Manjhi Bhagalpur University, Bhagalpur , BIHAR.

### INTRODUCTION

Children are mini social scientists. They look at the world around them and try to make sense of it. But young children with special needs face extra challenges in interpreting this world. When they have trouble in understanding what is real and what is pretend or imagined, their thoughts and concerns can be overwhelming. And they need special care. Any deviation to their care ( physical and mental) leads to manifestation of abnormal behaviour and they are grouped as children with special need.

**Special needs** is defined as 'individual with a mental, emotional, or physical disability'. An individual with special needs may need help with:

- Communication
- Movement
- Self-care
- Decision-making

Other types of special needs include:

- Autism
- ADHD
- Cerebral palsy
- Down syndrome
- Emotional disturbance
- Epilepsy
- Reading and learning disabilities
- Intellectual disabilities
- Pervasive developmental disorder
- Speech and language impairments
- Spina bifida
- Traumatic brain injury
- Visual impairments

Individuals with disabilities or special needs may require special care. To ensure their safety, several laws have been enacted into government. Special needs can mean many things — from thriving with a condition that challenges a single aspect of daily life to coping with something that forces you to learn a new normal.

A special need can enhance someone's life in the same way it can cause challenges. Someone with special needs may need help with vital activities ranging from movement or communication to making important decisions, and taking care of themselves, but teaching diversity from a young age and overcoming adversity with the help of the ones you love can broaden horizons for everyone involved. The intervention programme can have positive effects on children with special need (Adair, et.al. 2015).

There are four main categories of special needs:

**Physical** - multiple sclerosis, allergies and asthma, juvenile arthritis, leukemia, muscular dystrophy, epilepsy.

**Developmental** - Down syndrome, autism, dyslexia, dyscalculia, dysgraphia, dyspraxia, aphasia or dysphasia, auditory processing disorder, visual processing disorder.

**Behavioral/emotional** - obsessive compulsive disorder, dissociation, post-traumatic stress disorder, anxiety, depression, attention deficit (hyperactivity) disorder, bipolar.

**Sensory-impaired** - blindness, deaf or limited hearing, visually impaired.

A person might be born with special needs, or they may develop later in life. A child with special needs has access to special education, sanctioned by the U.S. Department of Education under the

Individuals with Disabilities Education Act (IDEA). This law defines which children are eligible for early intervention services, free public special education and related services.

Beyond children and youth, Benefits.gov offers resources and the Americans with Disabilities Act (ADA) prohibits discrimination to those with special needs within schools, workplaces and public spaces. Knowing the basics of some of these special needs can help to better understand those coping and living a successful life with the condition.

Research findings indicate Play therapy can be a way to reach the goal. The Association for Play Therapy website says play therapy is designed to: *"...help children express what is troubling them when they do not have the verbal language to express their thoughts and feelings (Gil, 1991). In play therapy, toys are like the child's words and play is the child's language (Landreth, 2002). Through play, therapists may help children learn more adaptive behaviors when there are emotional or social skills deficits (Pedro-Carroll & Reddy, 2005)."*

Rather than traditional 'talk therapy,' play therapy can be a more developmentally-appropriate approach for addressing the needs of a child. Play becomes the avenue for healing, growing, exploring, and communicating.

Young children learn through play. Typically, developing children use play to build physical and social skills, to try on different personalities and characters, and to forge friendships.

Play therapy was originally conceived as a tool for providing psychotherapy to young people coping with trauma, anxiety, and mental illness. In that context, play becomes a way for children to act out their feelings and find coping mechanisms.

The 'play' in play therapy is a special kind of play that allows the child to lead the work. Sometimes this work is called Child-Centered Play Therapy. The child gains confidence and control over feelings and thoughts in the setting of the playroom. The process takes place over time and allows the child to gain a better sense of self and self-worth, which can replace challenging behaviours like sleepwalking or tantrums.

Some children use play therapy quickly and can make great strides over relatively few sessions. Other children may take time to feel the comfort of the play space, and gradually reveal their thoughts and concerns through play, to make them feel less scary and overwhelming.

Play therapists are the first to say that play is fun and fundamental. But play therapy is also serious in their workplace. A registered play therapist is a mental health provider who must complete comprehensive training and supervision in order to become certified.

The first week of February is known as National Play Therapy Week in the USA. Play therapists,

psychologists, social workers, special educators, speech therapists, occupational therapists, physical therapists, and parents are all conductors on the Learning Train, especially during a child's early years when play is crucial to learning.

Play is essentially the way children practice and internalize both the rules and roles they see around them. Play helps children make sense of how their world works especially in case of the children with delinquency and criminal behaviour play therapy has a great role to bring them back to normal mental condition with ethical and moral commitment. There are many intervention techniques to facilitate play skills development, so that social communication proficiency can be addressed. Some of these strategies include:

### 1. Environmental Modifications

Positioning, Visual Supports, Sanitizing the Environment (to remove distractions) and physically and concretely demonstrating the If...Then Contingent. This can include: Visual Schedules and Reinforcer Rosters, Activity Centers, open cubbies, low hanging shelves, open bins, shoe-box tasks (TEAACH style), and a Sensory Break Area.

### 2. Toy Modifications

Hand-Over Hand Assistance, Specific Toy Selection, and Repurposing parts of toys (or broken toys) for later Verbal Description, Wh? Question, and Problem Solving Tasks

### 3. Adaptive Play Suggestions

Here are 11 toys and activities that are perfect for adaptive play settings

1. **Therapy balls** to sit on while engaged in play for increased attention span
2. **Swings, rocking chairs, or Dycem™ squares** to sit on while engaged in play
3. **Toys with non-slip surfaces and/or textured handles** to facilitate a more secure grip (I sometimes laminate or modge podge relevant toys, use raised buttons, and punch smalls if possible and use fuzzy pipe cleaner handles for grip.)
4. **Toys with embedded audio or visual component** (books and puzzles that make noise, have flashing lights within etc.)
5. **Puzzles with knobs** of varying height/width for an easier grasp (I like Melissa and Doug™ puzzles.)
6. **Structured “touch & feel” activities** and/or arts&crafts for increased sensory/tactile input which builds muscle memory and subsequently episodic memory
7. **Adaptive bikes and adaptive outdoor playground equipment**
8. **Adaptive books and board games** with velcro pictures & PECS, raised surfaces, and modified game pieces and page corners. (For example, I put styrofoam packing noodles at the bottom

corner of every page of a book to facilitate turning the pages. I also put dice in a tiny Rubbermaid™ container so that they can be seen and used more easily. I sometimes use Fisher Price™ Little People as game pieces for better handling and understanding re: representation).

9. **Adaptive Switches** and levers using one's head or hand etc.
10. **Adaptive Visual Supports** using mini magnets, velcro dots, brass fasteners, jumbo paper clips, 3M mounting squares, play dough, keychains, pieces of cardboard boxes, container lids, and actual objects as needed. (For example, I use old, worn out cookie sheets that are still magnetized for PECS and picture vocabulary sorting for categorization. I use cardboard squares with actual objects glued on such as a plastic car or a light colored or beige wooden block with a black square drawn on it to represent computer/video etc. for AAC beginners.)
11. **Assistive technology** or mobile technology devices such as the iPad

Play is a crucial stepping stone in child development, especially for children with Autism. It is important to collaborate and implement a team approach for increased performance and carryover, so that social communication skills can develop more naturally and sequentially. It's a good idea to methodically and developmentally assess and then incorporate play skills into IEP goal planning and implementation in special education, especially during the preschool years. This type of play therapy is still popular; however, it is not the same thing as play therapy as used for children with autism.

## **REVIEW OF LITERATURE**

Play Therapy was first introduced in 20th century and now it is a very popular method of therapeutic techniques. Play therapy differs from regular play in that the therapist helps children to address and resolve their own problems. Play therapy builds on the natural way that children learn about themselves and their relationships in the world around them (Axline, 1947; Carmichael, 2006;

Landreth, 2002). Through play therapy, children learn to communicate with others, express feelings, modify behavior, develop problem-solving skills, and learn a variety of ways of relating to others. Play provides a safe psychological distance from their problems and allows expression of thoughts and feelings appropriate to their development

Play is a wonderful tool for helping children (and sometimes even adults) to move beyond autism's self-absorption into real, shared interaction.<sup>4</sup> properly used, play can also allow youngsters to explore their feelings, their environment, and their relationships with parents, siblings, and peers.

Play is a fun, enjoyable activity that elevates our spirits and brightens our outlook on life. It expands self-expression, self-knowledge, self-actualization and self-efficacy. Play relieves feelings of stress and boredom, connects us to people in a positive way, stimulates creative thinking and exploration, regulates our emotions, and boosts our ego (Landreth, 2002). In addition, play allows us to practice skills and roles needed for survival. Learning and development are best fostered through play (Russ, 2004).

Play therapy is a structured, theoretically based approach to therapy that builds on the normal communicative and learning processes of children (Carmichael, 2006; Landreth, 2002; O'Connor & Schaefer, 1983). The curative powers inherent in play are used in many ways. Therapists strategically utilize play therapy to help children express what is troubling them when they do not have the verbal language to express their thoughts and feelings (Gil, 1991). In play therapy, toys are like the child's words and play is the child's language (Landreth, 2002). Through play, therapists may help children learn more adaptive behaviors when there are emotional or social skills deficits (Pedro-Carroll & Reddy, 2005). The positive relationship that develops between therapist and child during play therapy sessions can provide a corrective emotional experience necessary for healing (Moustakas, 1997). Play therapy may also be used to promote cognitive development and provide insight about and resolution of inner conflicts or dysfunctional thinking in the child (O'Connor & Schaefer, 1983; Reddy, Files-Hall, & Schaefer, 2005).

Children are referred for play therapy to resolve their problems (Carmichael; 2006; Schaefer, 1993). Often, children have used up their own problem solving tools, and they misbehave, may act out at home, with friends, and at school (Landreth, 2002). Play therapy allows trained mental health practitioners who specialize in play therapy, to assess and understand children's play. Further, play therapy is utilized to help children cope with difficult emotions and find solutions to problems (Moustakas, 1997; Reddy, Files-Hall, & Schaefer, 2005). By confronting problems in the clinical Play Therapy setting, children find healthier solutions. Play therapy allows children to change the way they think about, feel toward, and resolve their concerns (Kaugars & Russ, 2001). Even the most troubling problems can be confronted in play therapy and lasting resolutions can be discovered, rehearsed, mastered and adapted into lifelong strategies (Russ, 2004).

Very often, too, play therapy can allow parents to take an active role in their autistic child's growth and development.<sup>5</sup> Play therapy can be taught to parents, and, over time, parents can become their child's therapist while also building a stronger, more meaningful relationship.

Many specialists offering something called "play therapy" to children with autism are actually providing something akin to Floor time therapy. Floor time is a play-based technique which builds on autistic children's own interests or obsessions to develop relationships and social/communication skills. The Play Project is another therapeutic approach that uses play as a tool for building skills in autistic children. Like floor time, it builds on children's own interests.

It is possible to be officially credentialed in Floor time therapy through a certification program that includes a wide range of content.<sup>3</sup> This certification is offered through the Interdisciplinary Council on Developmental and Learning Disorders (ICDL) but is not recognized by any of the national therapeutic associations. Thus, most "play therapists" are not so much credentialed as they are experienced and/or trained. Of course, as with all autism treatments, the onus is on the parent to



investigate the therapist's background, training, and references, and to closely monitor progress.

Play therapy has many benefits for children coping with difficulties, it can help those processing complex issues, understand themselves and their disability, and can develop a stronger more confidence among them. This allows them to discover what physical and emotional strengths they have in relation to their disabilities. Behavioural problems, such as anger management, grief, loss, abandonment, crisis and trauma, and disorders, such as anxiety, depression, ADHD, autism, and developmental problems, can all be helped with effective therapeutic play. For best effect it is recommended that a parent, caretaker, or family member is actively involved in the treatment process. Most importantly, a safe relationship must be built between the therapist and child, one where the child can freely and comfortably express anything they like or find unpleasant. This will allow them to better express themselves and resolve their problems.

In one study Karla D. CarmichaelT (2009) in order to discover the effects of play therapy on physical and emotional strengths on children with disability found that Play therapy may be directive or nondirective, emotionally or physically focused, has a positive effect on children with disability but depending on the adaptation of children with special needs and characteristics of children with disabilities (Li, 1983). In another study Randall et.al.( 2015) observed that Children with intellectual disabilities (IDs) experience cognitive limitations and challenges in adaptive behaviors that affect their emotional and social development. Play therapy has been suggested for several decades as an intervention to help children with IDs strengthen adaptive behaviors and develop stronger social relationships. This article reviews four historical approaches to utilizing play therapy for IDs, including structured and unstructured play therapy, imaginative play therapy, Theraplay, and child-centered play therapy, and makes recommendations for renewed research on play therapy for children with IDs.

Studies on autism and animals are almost universally positive (Fauconnieret.al. 2009). While pets, service dogs, and animal-assisted therapies won't cure autism, they do help people with autism to cope with anxiety, engage more fully with other people, and even build communication skills. One study suggested that autistic people smile a lot more when they're around animals.

Sometimes it is found that animal therapy and pet therapy for Autism are effective. Any kind of animal can provide emotional, physical, or social support; in general, however, mammals make better therapeutic animals than reptiles, birds, or amphibians. Fish can be calming, but can't provide the kind of interactions that build skills. No matter which type of animal is chosen, however, there are five ways in which animals can work with autistic people of any age.



Dolphin therapy



***Service and therapy animals are proven to make a positive difference .***

***By Lisa Jo Rudy & Joel Forman, MD Updated on September 27, 2019***

Play therapy is especially appropriate for children ages 3 through 12 years old as stated by Carmichael, 2006; Gil, 1991; Landreth, 2002; & Schaefer, 1993. Teenagers and adults have also benefited from play techniques and recreational processes. To that end, use of play therapy with adults within mental health, agency, and other healthcare contexts is increasing (Pedro-Carroll & Reddy, 2005; Schaefer, 2003). In recent years, play therapy interventions have also been applied to infants and toddlers (Schaefer et. al., 2008).

After considering the role of play therapy on physical and intellectual disability cited above in research reviews this article aims at exploring the values of play in need of eradicating the delinquency behaviour of a nine year old boy Bradyl (Not the actual name) who is having the criminal tendencies to take away the things of his friends, siblings, and the person around him and some unusual aggressive behaviour.

## **OBJECTIVE:**

The objective of the study is

- To explore the effects of home environment and play therapy on the delinquency risk and problem behaviour of a Pre-adolescent child
- To analyse the components of risk factor of delinquent behaviour
- To describe the improvement of behaviour as a result of play therapy

## METHOD OF STUDY

### **SAMPLE / SUBJECT DETAILS:**

**Name of the subject** : Bradyl (Not the real name - as requested by parents)

**Mother Name:** Anil Gupta

**Father Name** : Siddha Gupta

**Age** : 9 years

**Gender** : Male

**School** : Open Public School

**Diagnosis** : Delinquency and aggressive

**Mental Health** : **Subnormal after 3 years of birth**

**Intelligence Level** : IQ Range: 35-40, 40% avg. learning ability

**Reason** : Biological and environmental

**Native Place** : Bhubaneswar

**Physical Health** : Lean and Thin and manageable

### **To Know about the Symptom**

1. Case history method
2. Interview from Parents, peer group, school teachers
3. From a survey in the school where the child was admitted
4. From the doctor who usually treated him

### **Tools used:**

- Home Environment Scale by Bradley & Caldwell
- Wisconsin Delinquency Risk Assessment Scale
- Aberrant Behaviour Checklist, second edition (abc-2)

## PROCEDURE

The investigator collected the data with due official permission, based on the questionnaire; interviews and observation of the child, from his parents, his teacher, siblings & peer group, etc. The test of revised version of the Home Environment Scale by Bradley & Caldwell revealed the idea that home environment significantly influenced his delinquent behaviour and lack of feeling of pride about family, lack of affection and warmth of parents, severe physical punishment, strong sibling rivalry, and

poor modelling by the parents for the encouragement of maturity are identified as risk factors.

Similarly Wisconsin Delinquency Risk Assessment Scale was used to test delinquency risk of the subject and Aberrant Behaviour Checklist (ABC -2) was used to assess the problematic behaviour of

the child. before and after the intervention programme of play therapy, for six months with 45 sessions, twice a day for 45 minutes (in Morning and evening). And accordingly the conclusion and interpretation were made.

The play therapy used were some computer based animal animation films with moral and ethical value in first session. In second session outdoor games like cricket, basket ball, football etc were played with him. And as the child was interestingly hearing the stories, the stories from 'Upanishads', 'Bisnu Sharma Upakhyana' and some stories with moral and ethical value was told after establishing a good rapport touching the soft skills.



**(ABC -2 Manual)**

## **RESULTS:**

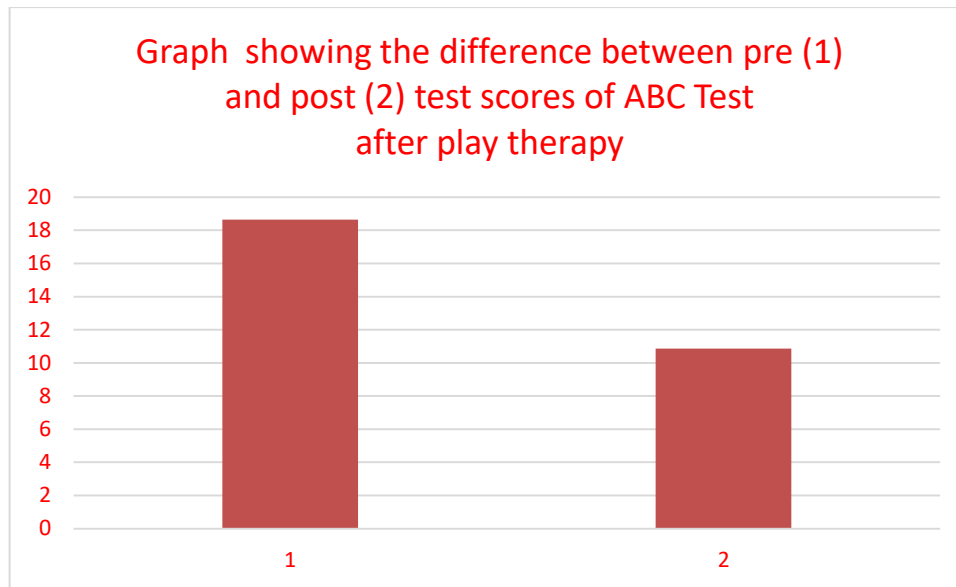
The results revealed that home environment significantly influenced Bradyl's delinquent behaviour and lack of feeling of pride about family. Lack of affection and warmth of parents, severe physical punishment, strong sibling rivalry, and poor modelling by the parents for the encouragement of maturity are identified as risk factors for him.

From the result table it is found that the pre-test ABC mean score of the child is 18.64 whereas post-test ABC mean score after play therapy is 10.86. (Table -1). The graph also provides the same interpretation as the bar of Pre-test is higher than the post test scores (Fig: 1)

Tests Used	Pre abc test	Post abc test	T' Value
Mean	18.64	10.86	4.13**
Sd	9.12	4.40	

**Result Table 1, showing the mean difference of pre and post abc-2 test of problematic**

### behaviour



**Fig 1:-showing the mean difference sores between pre and post ABC test scores. After the play therapy.**

### CONCLUSION

The above finding clearly indicates that play therapy has a beneficial effect on the child of special needs. This finding was also supported by Carmichael, 2006; Gil, 1991; Landreth, 2002; and Schaefer, 1993, that, play therapy is especially appropriate for children ages 3 through 12 years old. Teenagers and adults have also benefited from play techniques and recreational processes. Thus the use of play therapy with adults, having mental health, and other healthcare contexts is increasing day

by day (Pedro-Carroll & Reddy, 2005; Schaefer, 2003). In recent years, play therapy interventions have also been applied to infants and toddlers (Schaefer et. al., 2008).

Some other studies also support the hypothesis that Play therapy is beneficial for all ages (Carmichael, 2006; Reddy, Files-Hall, & Schaefer, 2005). More and more scientific ways, means and methodologies of play therapy are thus invited to help the Psychotherapists, psychiatrists and the doctors who are really doing service to the mentally challenged children.

### IMPLICATION & SUGGESATION

- The observation implicates that play therapy has a positive effect on the children with special needs. The awareness programme should be made in this direction

- The areas in the research may need for the scientific verification and exploration for the facts about the casual factors and its treatment procedures so that the problem behaviour and delinquency risk of the children with special needs can be controlled and prohibited.
- Further, admitting the inadequacy of the small sample size and the limitations in the methodology of the present research, the researcher intend to suggest that more number of subjects with further refined methodology may be planned and used to explain the causes, symptoms, and treatment procedure in tentative manner for the benefit of mentally challenged especially for the delinquent behaviour in particular.

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Credentialing - Claudia Vega, PhD, **cvega@a4pt.org**, Branches/Advertising - Melissa

Villegas, **mvillegas@a4pt.org**, Annual Conference - Diane Leon, **dleon@a4pt.org**, Membership -

Esther Gomez, **egomez@a4pt.org**

Approved Providers/Approved Centers - Jaqueline Rosales, **jrosales@a4pt.org**



**PERCEPTION OF FARMERS TOWARDS FACILITATION OF GOVERNMENT SERVICES  
IN RICE MARKETING AND CAUSE OF DISTRESS SALE:  
A CASE STUDY OF BALASORE DISTRICT**

**\*Dr. (Mrs.) Gitanjali Panda,**

**\*\*Dr. Sanjib Kumar Majhi,**

**Abstract**

*The objective of the present study is to find out the perception of the farmers with regard to various dimensions of government facilitation of services regarding marketing of paddy and thereby rice in Balasore district of Odisha. The second objective of the study is to find out the causes behind distress sale and has ranked the causes as perceived and communicated by the respondents to the questionnaire. The study has used statistical tool of factor analysis to reduce the seven variables depicting the various aspects of government facilitation process into three factors tapping the same underlying phenomenon. A regression analysis has been carried out between independent variables reflecting various dimensions of government provided services and the service efficiency in marketing of rice as dependent variable in the study area. The seven variables as the cause of distress sale have been ranked to identify the most important factors. The study is based on primary source by administering a well –structured questionnaire.*

*In this connection, 600 farmers are randomly selected from four blocks in the study area. The study found that there is close link between dependent variable i.e. effectiveness of rice marketing with independent variables. The study concluded that independent factors are the most closely related to any change in effectiveness of rice marketing supported by government. The most important causes for distress sale are observed from the field study are unpredictable weather condition, lack of storage facility, and compulsion for repayment of informal loan. The study suggested that available added services of the government should be facilitated more for better effectiveness of rice marketing system as per perception of farmers with the present facilitation services.*

A

**Key Words: Service Quality, Marketing, Procedural, Procurement, Effectiveness, Accessible, Production, Productivity, Perception, Farming, Distress Sale.**

*\* Asst. Professor of Economics, Fakir Mohan University, Balasore, Odisha – 756020*

*\*\*Asst. Professor of Economics, Fakir Mohan University, Balasore, Odisha - 756020*



## **INTRODUCTION:**

Agriculture plays a strategic role in the process of economic development of states like Odisha covering 35 percent of geographical area as the net cropped area and dependence of more than 60 percent of state's work force on it for their sustenance. This sector is reinforced by a sectorial share of about 20 percent in total gross state domestic product (GSDP) of the state. Broadly, agricultural production is of two types i.e. food grain production and non-food grain production. As per 2016-17 data, food grain production contributed 90.5 percent of total crop production in the state. Total food grain production in Odisha rebounded strongly with a record 109.70 lakh MT in 2016-17 whereas it was 82 lakhs MT during 2005-2006.

In the context of food grain, rice is the principal and major crop in Odisha. It is the staple food of Balasore district of Odisha too. For instance, production of rice in Odisha has increased during the 2016-17 to 97.94 lakh MT from 68.59 lakh MT during 2005-06. Being rice is the staple food of Balasore district of Odisha, marketing is the significant determinant of its production which not only helps in increasing production and productivity but also promoting the welfare of rice growing farmers in the pace of economic development.

Marketing being a matter of concern, the government of Odisha facilitates certain services like procuring paddy through co-operative societies, providing minimum support price (MSP) for rice product, facilitation of Mandi, input subsidy etc. from time to time for the growth of rice production and productivity with a view to promote welfare of rice growing farmers in the study area in a successful manner. In this regard, it is pertinent to know the perception of farmers towards facilitation of government services as well as to analyse the causes behind distress sale in rice marketing in the district of Balasore of Odisha.

## **REVIEW OF LITERATURE:**

Muhammad Abdullah et.al. (2013) have studied the problems faced by rice growing farmers at different stages of rice cultivation such as rice production, rice crop protection and rice marketing stages in Sialkot. In terms of production related problems, the findings highlighted that farmers perceived high price of fertilizer, shortage of canal water, high price of agricultural input, high rent charges of agricultural input, high rent charges of agricultural machinery, lack of consultancy facilities as well as lack of credit facilities as the major problems during the rice crop production process. Moreover, in the context of rice crop protection related problems, costly pesticides and ineffective fungicide were identified by the farmers and also in terms of marketing related problems of rice crop, unsatisfactory price offered of the produce, poor transportation, storage issues and lack of knowledge about market prices were identified by the farmers. Farmers have shown great dissatisfactions over the initiatives taken by the government in the tahasils of Daska and Pasroor of Sialkot district of Pakistan.

Sheila (2016) has studied on marketing of paddy with special reference to Alanganallur block of Madurai district. The study attempts to analyse the production as well as marketing system of paddy like marketing channels and also marketing problems faced by the farmers in the study area. Hnin Yu LWIN et al. (2006) have evaluated that the rice marketing channels and the interaction of market participants in selected areas of Myanmar. The major rice marketing channels in the studied sites indicate that almost all products of farmers flow to collectors and millers. The authors have found that lack of formal cooperative structures, farmers support groups and growing market power of millers at the farm-gate level result that farmers possess low bargaining power in trading of rice at the studied areas. The authors have suggested that government should

build up the co-operatives not only to encourage the bargaining power of farmers at farm gate level but also to accelerate the market intelligence of intermediaries in the channel of rice marketing. Further, authors have pointed out that a public market information center organized by government and non-profit rice traders organization is needed to distribute reliable up to date market information effectively and efficiently in order to reconcile the conflicting sources of information.

Veena Goel et al. (2008) have focused on the marketing practices, marketing structures and firms motives for vertical coordination of the Paddy-rice distribution system during the post green revolution period in the Punjab state of India. The study examined that the emergence of public sector as a giant player in the Paddy (non-basmati) wholesale markets, unscrupulous practices for Paddy or rice supplies, wide disparities in raised issue of prices, reduced off take from the public distribution system introducing various schemes to off load excessive stocks and improve marketing efficiency. The study also finds private milling gains momentum during the downward phase of the industry in account of increased profitability.

## **OBJECTIVES OF THE STUDY:**

The specific objectives of the study are :

- (i) To examine farmers perception towards facilitation of government services in rice marketing in the study area.
- (ii) To find out the most important causes behind distress sale in rice marketing in the study area.

## **METHODOLOGY OF THE STUDY:**

The present study is based on primary as well as secondary data. Balasore is selected as the sample district of the state of Odisha, specifically, in rice crop. Mainly, primary data is collected through questionnaires of interview through survey method. 600 farmers are randomly selected from four blocks like Basta, Bhogarai, Khaira and Nilagiri from the study area. The population is segmented

into mutually exclusive subgroups as like stratified sampling. In this regard, the judgement is used for the purpose of selecting farmers from each segment basing on a specified proportion. In this connection, a quota sampling technique is also used with a view to ensure a certain distribution of co-variables. Data have been collected during the period 2015-2016

### ANALYSIS AND INTERPRETATION OF DATA:

The regression analysis has also been used to measure the service efficiency in marketing of rice in the study area where service effectiveness has been taken as dependent variable and other seven variables have been taken as independent variables. Likert scale has been used to collect the responses from the sample where, 1- strongly agree, 2- agree, 3- cannot say, 4- disagree and 5-strongly disagree.

In this regard, the service quality in rice marketing combines with the following factors and which has been measured through regression analysis. The factors are :

1. Added Services are available
2. Easy & simple procedural formalities in marketing for farmer' convenience
3. Publicity campaign through agencies at local level for lifting rice
4. Effectiveness of government at the time of lifting
5. Quality of service of supporting staff of the government
6. Wide and easy accessibility with different agencies
7. Effectiveness of mass media for rice procurement and its price

		Mean score	Std. Deviation	No. Responses
	Effectiveness	2.18	1.25	594
A1	Added Services are available	1.94	1.14	594
A2	Easy & simple procedural formalities in marketing for farmer' convenience	2.60	1.42	594
A3	Publicity campaign through Agencies at local level for lifting rice	2.82	1.52	594
A4	Effectiveness of government at the time of lifting	3.20	1.47	594
A5	Quality of service of supporting staff of government	2.69	1.34	594
A6	Wide and easy accessible with different agencies	2.23	1.25	594
A7	Effectiveness of mass media for rice procurement and its price	2.77	1.39	594

Source: Compiled data (primary data)

Table- 1.1 : Descriptive statistics on Service Quality of Government in Rice Marketing

N= no. of responses =594

In the table- 1.1, Seven independent variables (i.e A1...A7) have been entered for measuring the rice marketing effectiveness on services provided by the government. These seven variables have a strong relation to effectiveness in the service pattern of rice marketing as it is proved. The measurement has been carried on through the farmers' responses on likert scale in the questionnaire, in the study area as sample. So it is tested in the following output table.

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics				
					R <sup>2</sup> Change	F Change	df1	df2	Significance
1	.797 <sup>a</sup>	.635	.631	.756	.635	146.893	7	586 <sup>a</sup>	.000

Source: Compiled data (primary data)

Table- 1.2:Model Summary on Service Quality Of Government in Rice Marketing

a. Predictors: (Constant), A7, A3, A4, A5, A6, A2, A1

In the table- 1.2, it is shown that the R, the correlation coefficient of the changes in the variables i.e. rice marketing with dependent factors mentioned above during the study for factors responsible for service effectiveness is high i.e. 0.797 , which indicates a strong relationship with the independent variables (i.e A1...A7). Further, R<sup>2</sup>, the coefficient of determination shows about 0.635. This model explains variation in service effectiveness in rice marketing. As a further measure of the strength of the model fit, it has been compared the standard error of the estimate on service quality effectiveness of government in rice marketing. The rice marketing for the effectiveness of services would be about positive as it reveals from the value of standard error i.e. 0.756, which is much higher with the change in scale of effectiveness taken in the study for farmers in the study area.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	584.396	7	83.485	146.893	.000 <sup>b</sup>
Residual	336.329	586	.572		
Total	919.726	593			

Source: Compiled data (primary data)

able- 1.3:ANOVA on Service Quality Of Government in Rice Marketing

a. Dependent Variable: Q9.service effectiveness of government

b. Predictors: (Constant), A7, A3, A4, A5, A6, A2, A1

The ANOVA table- 1.3 represents a significant F statistic i.e. 146.893, indicating the use of the model better than mean score. As a whole, the regression does have a better impact on effectiveness in the product of rice marketing through government services. The variation in expectation is explained

by the model which is due to the change in independent variables on service quality of government and signifies a more effectiveness can be expected. The rice marketing factors have been explained and practiced as per the perception of the farmers. As per the study results, it is found that if the independent variables incorporated for rice marketing effectiveness, which would be expected for a better marketability.

The coefficient table-1.4 shows that there is only one predictor in the model, i.e., to determine the relative importance of the significant predictors, which actually contribute more towards the product of rice marketing efficiency because of high standardized coefficient values. Here the tolerances are close to one and there is high multi co-linearity and the standard error of the regression coefficients.

<b>Table-1.4 Coefficient of service quality of government in rice marketing</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		.737	.143		6.161	.000
A1	Added Services are available	0.857	.030	.781	28.708	.000
A2	Easy & simple procedural formalities in marketing for farmer' convenience	-.139	.024	-.159	-6.894	.000
A3	Publicity campaign through Agencies at local level for lifting rice	-.016	.021	-.020	-.767	.443
A4	Effectiveness of government at the time of lifting	.033	.022	.038	1.461	.144
A5	Quality of service of supporting staff of government	.046	.025	.049	1.854	.064

A6	Wide and easy accessible with different agencies	.023	.026	.023	.896	.370
A7	Effectiveness of mass media for rice procurement and its price	-.033	.024	-.037	-1.392	.164

Source: Compiled data (primary data)

*a. Dependent Variable: marketing effectiveness*

The table-1.4 indicates that beta-value(unstanderdised ) is marked as higher positive values and significant except A2, A3 and A7. So all these variables are less elastic in nature. Further, Beta (unstandardised) values against variables also indicate a high potentiality in overall rice marketing. All the significant values of independent variables (four) have been only mentioned by deleting all other independent variables with positive values as the farmers have options for high linearity factors on marketing effectiveness. In other side, three independent factors are mostly act negative on rice marketing effectiveness based upon Easy & simple procedural formalities in marketing for farmer' convenience(A2), Publicity campaign through agencies at local level for lifting rice(A3) and Effectiveness of mass media for rice procurement and its price(A7). So the government has to put emphasis on these above mentioned variables for expecting a better rice marketing effectiveness.

So it is concluded that these four independent factors are most closely related to any change in effective of rice marketing supported by the government, i.e. Added Services are available (A1), Effectiveness of government at the time of lifting(A4), Quality of service of supporting staff of government(A5) and Wide and easy accessible with different agencies(A6).But among all these factors, Added Services are available (A1), reveals high beta positive value along with t-values, i.e. 28.708, which can change the entire system of effective marketing of rice . So more changes can be expected on change of procedural formalities and mass publicity at locale level .

The analysis and interpretation of data is carried on through farmers perception (sample study) in the product of rice marketing in the study area.

(A) Farmers Perception towards Facilitation of Government Services in Rice Marketing :

The service quality includes the following independent variables as :

1. Added Services are available
2. Easy & simple procedural formalities in marketing for farmer' convenience
3. Publicity campaign through agencies at local level for lifting rice
4. Effectiveness of government at the time of lifting
5. Quality of service of supporting staff of government
6. Wide and easy accessible with different agencies
7. Effectiveness of mass media for rice procurement and its price

		Initial	Extraction
A1	Added Services are available	1.000	.866
A2	Easy & simple procedural formalities in marketing for farmer's convenience	1.000	.521
A3	Publicity campaign through agencies at local level for lifting rice	1.000	.573
A4	Effectiveness of government at the time of lifting	1.000	.622
A5	Quality of service of supporting staff of the government	1.000	.659
A6	Wide and easy accessible with different agencies	1.000	.588
A7	Effectiveness of mass media for rice product procurement and its price	1.000	.576

Source: Compiled data Extraction Method: Principal Component Analysis (primary data).

Table- 1.5 : Communalities Service Quality of the Government in Rice Marketing

The table- 1.5 indicates that the factors for rice marketing issues “Service Quality of Government in Rice Marketing”, where the initial values of all the seven factor components are one and the extraction values show more than 0.5 , which means all the factors are best fit to the data and can be explored in measuring the variance to find out the most significant factor. But here seven factors are best fit for further measurement.

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.638	23.400	23.400	1.638	23.400	23.400
2	1.414	20.201	43.601	1.414	20.201	43.601
3	1.012	14.464	58.065	1.012	14.464	58.065
4	.854	12.197	70.262			
5	.802	11.458	81.720			
6	.688	9.836	91.556			
7	.591	8.444	100.000			

Source: Compiled data Extraction Method: Principal Component Analysis (Primary Data).

Table- 1.6 :Total Variance on Service Quality of the Government in Rice Marketing

The table-1.6 indicates that the total variance of individual factors (seven) as well the extraction values of sum of squares loading values. Out of the total, only three factors have been found in more values for service quality of the government in response to rice marketing in the study area. The initial Eigen values of the first part of the table indicates 58.065 of total value with 14.464 percent of variances among factors. The similar results are also found in loading values in extraction, which are the most significant among the selected factors with similar values to initial Eigen values. So it is

concluded that the principal component analysis reveals only 3 factors out of seven factors loaded and indicates significant with the total variance of 58.065 percent, which indicates a loss of near about 42 percent of data and needs for further analysis on “service quality of government in rice marketing” regarding lifting of rice product for as marketing is concerned.

		Component		
		1	2	3
A1	Added Services are available	.662	.092	.173
A2	Easy & simple procedural formalities in marketing for farmer' convenience	-.062	.822	-.045
A3	Publicity campaign through agencies at local level for lifting rice	-.101	-.387	.841
A4	Effectiveness of government at the time of lifting	.596	.204	.303
A5	Quality of service of supporting staff of the government	.567	.089	.209
A6	Wide and easy accessible with different agencies	.510	.065	.108
A7	Effectiveness of mass media for rice procurement and its price	-.073	.726	.356

Source: Compiled data Extraction Method: Principal Component Analysis (primary data)

Table- 1.7:Component Matrixon Service Quality of the Government in Rice Marketing

a. 3 components extracted.

The component matrix table- 1.7 shows on “service quality of government in rice marketing” regarding lifting rice. It highlights that the results of the each component in matrix. Here the highest value among the responsible factors is marked on (A1) : Added services are available, (A4) : Effectiveness of government at the time of lifting, (A5) : Quality of service of supporting staff of government. Further, (A6) : Wide and easy accessible with different agencies also indicate positive but is excluded from the most significant factor responsible for rice marketing as it indicate three .

In second and third columns, these values against factors also show significant values. These three factors remain most significant cause for better satisfaction in rice marketing system. So the government must continue present facilitation status to make more effective in rice marketing.

#### **(B) Farmers' Perception towards cause of Distress Sale in Rice Marketing :**

Here seven major factors have been included in the questionnaire on distress sale of rice in the study area. So these questions are included in the response sheet which have been presented in ranking as per their point of importance to the causes. They responded as per their own perceptual level .

Table—1.8 : Ranking for the cause of distress sale of rice product.



	RANK	RESPONSES
Need for meeting the educational expenditure of the children	1	170
High transaction costs of availing the government marketing facility due to the distance of the owner of the land from the actual field	2	211
Q7. High Input Cost.	3	245
Q1. Poor economic condition	4	372
Urgency of repayment of Loan due to informal loans obtained from the money lenders	5	426
Lack of storage facility	6	442
Inconvenience caused by unpredictable weather condition	7	448
Valid No. (listwise)	594	

Here in the table – 1.8, the three under mentioned causes are more important and responsible factors for the causes of distress sale of rice product. It is stated that

Q2. Urgency of repayment of Loan due to informal loans obtained from the money lenders(426)

Q5. Lack of storage facility (442)

Q6. Inconvenience caused by unpredictable weather condition caused by absence of own storage facility (448)

Maximum farmers pointed on Q6 followed by Q5 and Q2. That means storage is the prime concern for the farmers for which it leads to distress in the product of rice farming and its marketing at expected price. They are deprived of getting the right price for their rice product. Further, loan from the informal sources like money lenders for their farming is an important factor, for which they need for urgency of repayment. So the government may take necessary steps to construct warehouse facilities in order to address this type of perceived need of the farmers.

### Conclusion and Findings of the study:

From the analysis of service quality in rice marketing of government, it is found that R, the correlation coefficient of the changes in the variables i.e., rice marketing with dependent factors mentioned above during the study for factors responsible for service effectiveness is high i.e. 0.797 which indicates a strong relationship with the independent variables (i.e. A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>, A<sub>6</sub>, A<sub>7</sub>). Further, R<sup>2</sup>, the co-efficient of determination shows about 95 percent, i.e. 0.635. And four independent factors are most closely related to any change in rice marketing system. The major factors responsible for distress sale in rice are inconvenience caused by unpredictable weather condition in the absence of own storage facility, lack of storage facility provided by the government and the burden of informal loan from money lenders. Government should take immediate steps in provisioning storage facility to the farmers and in strengthening formal institutions for providing finance to the farmers.

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## RANDOM REFLECTIONS ON NEURODECISION DYNAMICS

*\*Colonel (Dr) J. Satpathy*

*\*\*Prof (Dr) Shikha Gera*

### INTRODUCTION

In the book-The world is flat, Thomas Friedman (2005) claims that the rate of change today is much different from the past. The speed, breadth and intensity with which it is taking place is directly or indirectly touching the lot more people on the planet at once due to the introduction of globalization in the early 90's. It is paying more way to the disruptions in the economies. The experiences of the high-tech companies have been very bad in the last few decades due to lack of speedy adaptability to the globalized environment. This could be due to lack of leadership, flexibility, imagination to adopt or decision making. This rapid flattening, as Friedman call it, is creating the environment as Volatile, Uncertain, Complex and Ambiguous and is termed as VUCA in the late 1990's that reflects an increasingly unstable and rapidly changing business world<sup>1</sup>. This new VUCA environment will require the managers to take the right decisions at the right time. In order to understand the decision-making process, it is imperative to study the brain. Therefore, neuroscience seeks to understand the most complex biological structure in the Universe, with an estimated billion brain cells, or neurons and trillions of connections between them<sup>2</sup>.

Neuroscience as the name suggests, is the scientific study of the nervous system<sup>3</sup>. It is a multidisciplinary branch of biology that combines physiology (scientific study of functions and mechanisms which work within a living system), anatomy (branch of biology which studies the structure of organisms and their parts), molecular biology (branch of biology which studies the molecular basis of biological activity), developmental biology (branch of biology which studies the process by which animals and plants grow and develop),

*\* Faculty, Academics Department, National Defence Academy (India) , e mail :Jyotisatpathy@gmail.com*

*\*\* Faculty of Management , Jamia Hamdard Deemed University (India).*

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<sup>1</sup><http://laszlo-zsolnai.net/sites/default/files/3/documents/Reading%203%20Developing-leaders-in-a-vuca-environment.pdf>

<sup>2</sup><https://www.kavlifoundation.org/tags/neuroscience>

<sup>3</sup><http://c.merriam-webster.com/medlineplus/neuroscience>

Cytology (the branch of biology that studies the function of the cell-the basic unit of life), mathematical modelling (the branch that describes the systems using mathematical concepts and language) and psychology (the branch that studies the science of behavior and mind) (Shulman, 2013). Neurobiologists provide tools for the study of neurobiological mechanisms by which decisions are made. Such mechanisms are exclusively attributable to changes within economics. Neuro economics seeks to explain human decision-making ability to process multiple alternatives and choosing the best alternatives from the pool of alternatives. Therefore, economics, psychology and neuroscience are converging into a single, unified discipline to provide a general theory on human behavior. Integration of these disciplines will offer the construction of accurate models of decision making. Every decision-making process produces a decision which is a continuous process integrated in interaction with the environment. This process is known as Neuro-management decision making. It is also regarded as a mental process or cognitive process resulting in selection of course of action from several alternatives (Satpathy, 2012).

## **THEORETICAL BACKGROUND**

Decision making is one of the most central and vital processes in organizations. According to Cole (2004) decision making is a process of identifying a problem, evaluating various alternatives and selecting the best alternative. Heracleous (1994) claims that faulty strategic decisions can seriously impair organizations competitiveness. Therefore, an understanding of decision-making process is vital for managers.

**All decisions can be categorized into the following three basic models:**

- a) The Rational/ Classical Model
- b) The Administrative or Bounded Rationality Model
- c) The Garbage Can Model

### **1. Rational / Classical Model**

A rational decision-making process is often suggested as the way in which decisions should be made rationally. It involves the sequential process which is illustrated in Figure 1. This process has certain assumptions and characteristics. Some of the assumptions and characteristics are as follows:

- a) Decision makers have a clear understanding of the nature of the problem and its associated objectives.
- b) There is a comprehensive search for alternative courses of action and their consequences.
- c) Each alternative is evaluated and the alternative that is most likely to achieve the objectives is selected and implemented.
- d) Monitoring of consequences takes place continuously in order to ensure the success of chosen course of action with respect to objectives.
- e) This model makes no reference to the filtering and constraining influences of the organizational paradigm on the decision process.
- f) The model also ignores the significant effects of political behavior on the process.

**Figure 1: Rational Decision-Making Model**



(Source: Heracleous, 1994)

## **2. Bounded Rationality Model or Administrative Man Model**

Bounded Rationality Model is based on the concept developed by Herbert Simon. This model does not assume individual rationality in the decision making process. This model assumes that people while seeking the best solution normally settle for less because decisions they confront typically demands greater information, time and alternatives. Therefore, they settle for limited rationality in decisions (Simon, 1997, 2009).

According to Simon (2009) Bounded rationality model implies the following:

- a) Decisions are based on incomplete and somewhat inadequate comprehension of the true nature of the problem being faced.
- b) Decision makers never succeed in generating all possible alternative solutions.
- c) Alternatives are evaluated incompletely because it is impossible to predict accurately all consequences associated with each alternative.
- d) It is also impossible to determine which alternative is optimal.

## **APPROACHES TO BOUNDED RATIONALITY**

### ❖ **Satisficing**

One version of bounded rationality is the principle of satisficing. This approach is usually taken by decision makers which involves choosing the first alternative that satisfies minimum standards of acceptability without exploring all possibilities (Neilson, 2011).

### ❖ **Heuristics**

A heuristic is a rule of thumb that can help the decision maker find a solution in a complex and uncertain environment (Moustakas, 1990). In other words, heuristics are the assumptions that guide the search for alternatives into areas that have a high probability of yielding success.

In the social and behavioral sciences, there are many well known heuristics used to make a wide variety of decisions such as “the customer is always right”. Heuristic approach has a tendency to oversimplify complex problems or introduces bias into the decision making process (Lunenberg, 2010).

### ❖ **Primacy/Recency Effect**

In the decision making process, the decision maker is influenced by the information discovered either in the early stages of the process (the primacy effect) or later in the process (the recency effect). Thus, importance attached to the information may be affected by its order in the search sequence (Brown and Moberg, 2004).

### ❖ **Bolstering the Alternative**

This is the another way in which the search for information is biased. Information that supports the decision maker’s preferred alternative is considered legitimate and acceptable and is known to be as bolstering the alternative (Bubnicki, 2003).

### ❖ **Intuition**

Intuition is another aspect of bounded rationality. It represents a quick apprehension of a decision situation based on past experiences and the reinforcement associated with it, which is devoid of conscious thought (Myers, 2002).

### ❖ **Incrementalizing**

Another approach to decision making is sometimes referred as muddling through that involves small changes or increments in the existing situation and the process is known as incrementalizing (Lindblom, 1993).

### **Garbage - Can Model**

This model describes the decision making process in so-called organized anarchies (organizations facing extreme levels of ambiguity in their decisional environments). The GCM attempts to explain how organizations make choices without having consistent shared goals. The decision-making process within the organized anarchies is portrayed as a garbage can into which a mix of problems and possible solutions are dumped, with the particular mix determining the decision’s outcomes. The mix is reflected by a) how many decision areas are handled by the organization, b) which people in the

organization have decision making power, c) the organization's decision load, and d) its resources, time energy, and attention (Kessler, 2013).

## **LITERATURE REVIEW**

The researches on neuroscience is progressing now in the field of management and psychology to understand the dynamics and the processes of human brains that helps them in taking decisions in the VUCA environment. Stanfey, Loewenstein, McClure and Cohen (2006) maintained that despite substantial advances in research, the question of how we make decisions and judgements continues to pose important challenge. Historically, different disciplines have approached this problem using different techniques and assumptions, with few unifying efforts made. However, the field of neuroeconomics has recently emerged as an interdisciplinary approach to bridge this gap.

In the recent past there are some of the studies conducted in the area of neuroscience and decision making. Economics, in turn is being increasingly influenced by a multiple-systems approach to decision making which is rooted in psychology and neuroscience. There are few researches that focus on the roles of intuition, emotions, cognition and creativity.

In the year, 2000 Lieberman discusses about the important role of intuition in decision making process and claims that how individuals use the aspect of intuition for their decisions. Naqvi, Shiv and Bechara (2006) in their study endorsed the role of emotions in decision making process and maintains that the process involves an interplay between neural systems and emotions. On the other hand, Peterson (2019) endorses the important role of cognition in decision making process.

In addition to it, Berthoz (2006) examines in his book the brain mechanisms involved in the decision-making process and proposes that perceptual actions are decision making processes. Berthoz also considers how decision-making process involve an internal dialogue with oneself. He also states that high levels of creativity is involved in decision making process. Furthermore, Gardner (2019) maintains that the perceptual decisions are made through optimal solutions that are derived through statistical computations. The optimality requires perfect knowledge about the priors and complex computations or heuristics approximation. Earlier, Lee (2013) talked about the difficulties in identifying optimal behaviours in real life due to the complexity of decision maker's environment and social dynamics.

Research in neuroscience and psychology has begun to investigate neural bases of decision making through certain experiments. For instance, Lazaroiu, Pera, Stefanescu-Mihaila et al. (2017) emphasizes on neuroeconomics experiments that employs a mixture of brain imaging/stimulation tests and suggests that neuroscience is adequately prepared to regulate the notion of how choices are determined by mental states<sup>4</sup>.

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<sup>4</sup><https://www.frontiersin.org/articles/10.3389/fnbeh.2017.00188/full>

In the area of marketing, Yoon, Gonzalez, Bechara et al. (2012) in their paper argue that how psychological constructs such as hunger, stress and social influence on consumer buying choices and preferences. Harris, Ciorciari and Gountas (2018) reviewed in their paper the use of functional magnetic resonance imaging technique, electroencephalography, eye tracking, and implicit measurements that are becoming increasingly popular market research techniques due to rapid technological improvements and reduced costs.

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## NEURO - PERSPECTIVES IN MANAGERIAL DECISIONS: AN ANTHOLOGY

**\*Colonel (Dr) J Satpathy**

### **Abstract**

*Managerial effectiveness is neural capacity necessary to manage judgment, sentiment and procedures. It refers to high-level neural skill to manage and direct neural ability and behaviours. This study was designed to help understand what effective managers really do. Study examines personage difference in conjecture of psyche and managerial functions to explain variation in severity of effectiveness symptoms that account for inconsistency in behaviours symptoms. This model consists of continuum ranging from quantity - oriented manager (observed to display significant activities and performance) to quality - oriented traditional manager (observed to exhibit interface with outsiders, controlling and planning activities and perceived to have quality performance). This descriptive model helps identify needed managerial activities and skills for quantity and quality performance in today's organizations. These findings are discussed in terms of a proposed distinction between aspects of model of mind and related executive control skills.*

**Key Words:** *Managerial Effectiveness, Neural Capacity, Personage Difference and Executive Control Skills.*

**\* National Defence Academy, India**

### **INTRODUCTION**

Conjecture of brain is aptitude to trait mental states ; attitude , intents , requirements , pretends, comprehension, etc. to oneself and others furthermore to appreciate that others have beliefs, desires, intentions and perspectives that are dissimilar from one's own. Conjecture of brain is a surmise insofar as the brain is not directly evident. The supposition that others have brain is termed a conjecture as each human can barely perceive subsistence of his / her own brain through introspection. No one has unswerving admittance to brain of another. It is characteristically implicit that others have brains by parallel with one's own. This assumption is based on shared nature of interface, efficacies and perceptive of others sentiment and dealings.

Having conjecture of brain allow one to element judgment, requirements and intention to others, forecast or elucidate actions and hypothesise intentions. As initially distinct, it enables to value that psychological state can be root of, explicate and calculate behaviour of others. Being able to feature mental states and perceptive them as cause of behaviour implies that the brain as an author of representation. If a manager does not have conjecture of brain, it may be a symptom of neural or developmental mutilation. Existing deliberations have ancestry in rational debate (Descartes' Second

Meditation) that set basis for making allowance for discipline of brain dynamics. Familiar divergent

approach in philosophical journalism, to conjecture of brain is conjecture-conjecture and simulation - conjecture. Conjecture-theorist envisions absolute conjecture to rationale about others' brains. Conjecture is developed mechanically and instinctively, though instantiated interactions. It is intimately associated perception and ascription that quality mind, actions, effectiveness, properties, realization and link to corporeal body (brain). Mind - body rapport dilemma is generally seen as key question in philosophy of mind.

Managerial effectiveness (neural influence and managerial - attention organism) is umbrella term for management (regulation, power) of neural processes. Managerial scheme is a theorised neural structure that directs neural processes. Prefrontal areas of frontal lobe are necessary but not solely sufficient for hauling out this effectiveness. Conventionally, managerial effectiveness has been synchronised by prefrontal regions of frontal lobes. Nevertheless it is a matter of unending contest. Frontal and non-frontal regions are essential for integral effectiveness. Probably, frontal lobes need to play a part in fundamentally the whole effectiveness. Managerial system is ideated to be profoundly drawn in handling situations exterior domain of mechanical processes that explain imitation of set behaviours; those that engross scheduling or decision - making, those involve inaccuracy rectification, where response are not well-rehearsed, in principle tricky situations and that necessitate overcoming of tough response.

## **KEY QUESTIONS**

Neuroeconomics provides economists and social scientists with a deeper understanding of how they make their own decisions, and how others decide. Are we hard-wired to be risk-averse or risk-seeking? How is a 'fair decision' evaluated by the brain? Is it possible today to predict the purchasing intentions? Can we modulate economic behaviour affecting the brain? Effective management is a result of persistent efforts in multiple dimensions be it the formulation of strategies or the smooth functioning of day-to-day activities. The complexity in management partially arises due to how organizations juggle between the efforts that focus on long-term objectives and handling daily nitty-gritty. In order to ensure effective functioning of organizations, it becomes extremely important for organizations to invest time and effort in developing managerial competencies. A structured effort in this direction would not only lead to formulating successful organizational strategies but would also ensure proper execution of day to day operations (ASCI; Hyderabad).

Risk management and decision theory is a hopeful matrimony linking two completely significant characters of mind-boggling heredity. Decision presumption is conjecture about decisions. The subject is not amalgamated one. To the converse, there are many diverse ways to conceive about decisions with dissimilar traditions. To theorize about decisions is approximately the same as to theorize about human activities. How to resolve reservations with need for decision, recalling that decision not to act

in anticipation of more information is still a decision? Risk psychoanalysis and numerical decision supposition can make available various strategies.

Some key research issues in this context are; what are the constituent processes underlying managerial effectiveness task performance? Are different managerial effectiveness's uniquely linked to different brain regions? How do changes in brain effectiveness contribute to changes in managerial effectiveness? Risk and return – are they related? What are managerial effectiveness issues? Can risk be managed? Is it possible to identify risk-prone and risk-averse persons? What diagnosed? What How managers do chose risky prospects? Do the managers use any computer-based decision aids when working with risk estimations and/or decision problems? What symptoms of managerial Effectiveness Issues Finds it hard to figure out how to get started on a task. Can focus on small details or the overall picture, but not both at the same time? Has trouble figuring out how much time task requires. Does things either quickly and messily or slowly and incompletely. Finds it hard to incorporate feedback into work or an activity. Sticks with a plan, even when it's clear that the plan isn't working.

Has trouble paying attention and is easily distracted. Loses a train of thought when interrupted. Needs to be told the directions many times. Has trouble making decisions. Has a tough time switching gears from one activity to another. Doesn't always have the words to explain something in detail. Needs help processing what something feels/sounds/looks like. Isn't able to think about or do more than one thing at a time.

### **Neuro - Perceptions**

*New brain imaging technologies have motivated neuro - managerial studies of the internal order of the mind and its links with the spectrum of human decisions from decision making among fixed gambles to decision making mediated by market and other institutional rules. We are only at the beginning of the enterprise, but its promise suggests a fundamental change in how we think, observe and model decision in all its contexts (Smith; 2002).*

How is managerial decision making processes carried out in brain? Do we interpret research findings when neuromanagement logical results conflict? Knowing how brain is working explains little about what mind produces; what we think, what we believe and how we craft decisions. What are the general implications of neuromanagement management? Neuromanagement techniques permit to look inside brain while it experiences outcomes and crafts decisions to examine implications. Central argument is that decision - making is at core of managerial functions and future of any organisation lies on vital decisions made. Decision usually involves three steps: recognition of a need, dissatisfaction within oneself (void or need), decision to change (fill void or need) and conscious dedication to implement the decision. However, certain critical issues coupled with factors such as uncertainties, multiple objectives, interactive complexity and anxiety make decision making process difficult. At times when making a decision is complex or interests are at stake, then need for strategic decision - making arises. Management is influenced by multiple-systems approach to decision-making,

a perspective strongly rooted in psychology and neuromanagement science. The integration of these disparate methodologies offers exciting potential for construction of models of decision-making (Satpathy: 2012).

Questions that need to be answered (Satpathy: 2012) include; how to choose in tough situations where stakes are high and there are multiple conflicting objectives? How should Managers' plan? How can we deal with risks and uncertainties involved in a decision? How can we create options that are better than the ones originally available? How can we become better decision makers? What resources will be invested in decision - making? What are the potential responses to a particular problem or opportunity? Who will make this decision? Every prospective action has strengths and weaknesses; how should they be evaluated? How will they decide? Which of the things that could happen would happen? The decision has been made. How can we ensure it will be carried out? These are the questions neuromanagement researchers suspect are most crucial for understanding complex human behaviours.

### ***Prefrontal Cortex In Managerial Decision***

How do managers make choices? The dominant paradigm in empirical and theory work in economics is to assume that manager choices are made by fully rational decision-makers. These models often assume managers seek to maximize the present value of current and future earnings, solve a dynamic optimization problem, and play a Bayesian Nash Equilibrium. An increasing amount of research, however, has documented that these (and other) standard assumptions are often violated. In their place, several formal models of alternative assumptions have been developed and tested (SSRN abstract; 2011559). Decision-making is regarded as the neural scheme resulting in selection of belief or course of action in the middle of a number of substitute potential. Every decision-making process produces a final choice that may or may not prompt action. Decision-making is the study of identifying and choosing alternatives based on the values and preferences of the decision maker. Decision-making is one of the central activities of management and is a huge part of any process of implementation.

Organizations of today are in great need of improving their skills when it comes to decision making, and especially the designing of decisions. By the designing of decisions is meant the preparatory stages of decision making (Nutt; 1984). It is argued that the design of decisions is a process that in many ways is shaped by factors such as identities, values, and influences. The task of the decision maker tends to be reduced to a choice between ready-made alternatives. To be able to understand how these factors impact organizational decisions, the focus must be set on the management level. It is the management that shoulders the chief responsibility for designing collective actions, such as decisions. Our propositions indicate that the following measures must be taken in order to improve the quality of organizational decisions (Selart; 2014):

1. Uniqueness of individuals occupied in decision making, affects value of decisions and should be taken into explanation in plan of decisions.
2. Decision maker or designer of decisions is supposed to fit into place members to craft a collective mental picture.
3. Getting members to articulate and carve up general values should perk up decision making process.

Decision-making can also be regarded as a problem-solving activity terminated by a solution deemed to be satisfactory. It is, therefore, a reasoning or emotional process which can be rational or irrational and can be based on explicit assumptions or tacit assumptions. Rational choice theory encompasses the notion that people try to maximize benefits while minimizing costs.

Human performance with regard to decisions has been the subject of active research from several perspectives:

- Psychological: exploratory individual decisions in framework of a set of needs, preferences and values the individual has or seeks.
- Neural: decision-making process regarded as a continuous process integrated in communication with the environment.
- Normative: the analysis of individual decisions concerned with the logic of decision-making and rationality and the invariant choice it leads to.

Solitary of the slightest explored and smallest amount understood regions of cerebral cortex is orbitofrontal cortex, a part of frontal lobe that lies on roof of orbit. Theories of medial prefrontal function emphasize its role in adaptive decision making. Entire prefrontal cortex receives broad range of sensory and limbic inputs which trigger contextually appropriate representation of goal or assignment rules. Experiential literature on medial prefrontal cortex (mPFC) is subjugated by studies of its function in decision making. However, mPFC a key role in memory, as decorated by its discriminating contribution in retrieval of 'remote' memories.

Ventromedial prefrontal cortex (VMF) is considered significant in human decision making. Studies spotlight on decision making under situation of uncertainty, chancy or indecisive decisions. Other defenses of corroboration sponsor that this represent moderately elementary information concerning virtual 'cost-effective' significance of choice, predict a function for decision making even in unreality of indecision. Neural basis of decision making has been an indescribable observation due to sub processes allied with it. Contemporary efforts concerning neuroimaging and neuropsychological studies designate that prefrontal cortex plays vital role. Frontal lobes are involved in tasks ranging from making choices to making multi-attribute decisions that demand unambiguous indication and incorporation of assorted sources of information. In categorizing diverse aspect of decision making, itemization of prefrontal cortex hooked on three prime regions is; Orbitofrontal and ventromedial are germane to deciding based on reward values and add affective information regarding decision attributes and options. Dorsolateral prefrontal cortex is decisive in making decisions that label for

reflection of multiple sources of information. (3) Anterior and ventral cingulated cortex emerges principally relevant in cataloging conflicting options and signal outcome-relevant information.

### **Problem Exploration**

- Analyze performance, what should the results be against what they actually are.
- Problems are merely deviations from performance standards.
- Problem must be precisely identified and described.
- Problems are caused by a change from a distinctive feature.
- Something can always be used to distinguish between what has and hasn't been affected by a cause.
- Causes to problems can be deducted from relevant changes found in analyzing the problem.
- Most likely cause to a problem is the one that exactly explains all the facts.

### **Decision-Making**

- Objectives must first be established.
- Objectives must be classified and placed in order of importance.
- Alternative actions must be developed.
- The alternative must be evaluated against all the objectives.
- The alternative that is able to achieve all the objectives is the tentative decision.
- The tentative decision is evaluated for more possible consequences.
- The decisive actions are taken, and additional actions are taken to prevent any adverse consequences from becoming problems and starting both systems (problem analysis and decision-making) all over again.
- There are steps that are generally followed that result in a decision model that can be used to determine an optimal production plan.
- In a situation featuring conflict, role-playing may be helpful for predicting decisions to be made by involved parties.

### **CONCLUSION**

Applying behavioral biases to managers is an important and growing area of study. It is recommended there are several particularly promising areas for future work, which we summarize below: Theory and lab research on the impact of fairness on a broader range of managerial decisions, including welfare analysis. Theory and lab research on preferences, particularly in coordination games. Research on the effect of preferences on managerial behavior using data from the field in order to understand the broader applicability of the laboratory-generated results. Research on how alternative utility functions, aside from preferences, might affect managerial behavior. Examples include self



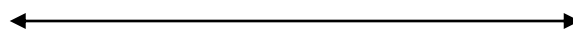
control, context effects, inattention, and reference dependence. Research that applies the computational and equilibrium selection advantages of alternative solution concepts such as neural hierarchy to help solve coordination games, in theory and in structural empirical work. Field work that examines the conditions under which we observe bounded rationality by managers in games, including disclosure games, entry games, technology adoption games, and others. Theory and lab work on the biological basis of economic behavior, which can in turn help discipline existing theory and inspire new models. Field work on the role of overconfidence in manager decisions and firm performance. Theory and (especially) field work on the consequences of mixing rational and non-rational firms. While there has been substantial progress recently, there is much more work to be done to understand when and how behavioral biases apply to managerial decision-making (SSRN Abstract; 2011559).

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### **Role of ICT in Learner Centered Education:-**

\*Bina Kumari

\*\* Kumari Sanju Singh

#### **Abstract:**

*The Learner-Centered Education (LCE) focuses on both teacher's and learner's experiences. It helps to motivate teaching, learning and its achievement. ICT can be exploited to enhance the integration of the learning centered principles by supporting the learners and teacher's need and capabilities while promoting creative and critical thinking.*

*The purpose of the learner-centered model is to provide an individualized, flexible learning environment for every student. Technology of instruction can make an ordinary man capable of superior performance and a means, either printed or electronic, to distribute that instruction. There are two main characteristics of technology in the context of LCE. The ultimate goal of ICT is to increase learning with longer retention and increased performance. For a teacher to change their teaching methods and incorporate ICT into their teaching is an emerging trend. They must have time, confidence, motivation, training, the proper technology supported environment and the incentive to do so. Technology alone, of course, does not produce learning; technology is a tool that can be used in many ways, to enhance LCE. LCE is fundamentally based on Constructivist theory-based on observation and scientific study-about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences.*

*\*Principal, RGM Teachers' Training College, Digwadih, BBMKU, Dhanbad, Jharkhand*

*\*\* Asst. Professor, Deptt. of Education, Doranda college, Ranchi University, Ranchi*

### **INTRODUCTION:-**

ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters (UNESCO, 2002). ICT stands for Information and Communication Technologies. ICT is a part of our lives for the last few decades affecting our society as well as individual life. Teacher, Student, administrator and everybody related to education are popularly using ICT. Teacher use ICT for making teaching learning process easy and interesting. A competent teacher has several skills and techniques for providing successful teaching. So development and increase of skills and competencies of teacher required knowledge of ICT and Science & Technology; in modern science and technological societies education demands more knowledge of teacher regarding ICT and skills to use ICT in teaching –

learning process. The knowledge of ICT also required for pre-service teacher during their training programme, because this integrated technological knowledge helps a prospective teacher to know the world of technology in a better way by which it can be applied in future for the betterment of the students. Now – days ICT's are transforming schools and classrooms a new look by bringing in new curriculum based on real world problems, projects, providing tools for enhancing learning, providing teachers and students more facilities and opportunities for feedback. ICT also helps teachers, students and parents to come together. Continuous and Comprehensive Evaluation (CCE) helps students as well as teachers to use more technology for making teaching learning more attractive for the betterment of our future generation. Teachers must know the use of ICT in their subject areas to help the learners for learning more effectively. So, the knowledge of ICT is very much essential 2 BaishakhiBhattacharjee and Kamal Deb for the both prospective teachers as well as in-service teachers also. This will help teachers to know integrated technology with classroom teaching. This paper discussed about the role of ICT in 21st Century's teacher education.

### **Recent Trends in Teacher Education:-**

Based on various changing needs of our society, now emphasis is also given to the various educational theory and educational practices. According to these theories and practices changes are also undergo in teacher education also. It is natural that teacher education must include new technology. Teachers should also know the right attitudes and values, besides being proficient in skills related to teaching. As we know the minimum requirement of any training programme is that it should help the trainee to acquire the basic skills and competencies of a good teacher. Now-a-days new trends in teacher education are Inter-disciplinary Approach, Correspondence courses, orientation courses etc. Simulated Teaching, Micro Teaching, Programmed Instruction, Team Teaching are also used in teacher education. Now-a-day Action Research also implemented in Teacher Education. ICT acts as the gateway to the world of information and helps teachers to be updated. It creates awareness of innovative trends in instructional methodologies, evaluation mechanism etc. for professional development.

### **Different Strategies for applying ICT in Teacher Education:-**

- i) Providing adequate infrastructure and technical support.
- ii) Applying ICT in all subjects.
- iii) Applying new Pre-service teacher Education curriculum.
- iv) By using application software, using multimedia, Internet e-mail, communities, understanding system software.

### **Role of ICT in 21st Century's Teacher Education:-**

ICT helps teachers in both pre-service and in-Service teachers training. ICT helps teachers to interact with students. It helps them in preparation their teaching, provide feedback. ICT also helps teachers to access with institutions and Universities, NCERT, NAAC NCTE and UGC etc. It also helps in effective use of ICT software and hardware for teaching – learning process. It helps in improve Teaching skill, helps in innovative Teaching. It helps in effectiveness of classroom. It also helps in improving professional Development and Educational management as well as enhances Active Learning of teacher Trainees. It is now replacing the ancient technology. As we know now-a day's students are always have competitive mind. So teacher must have the knowledge of the subject. This can be done through ICT. ICT helps teachers in preparation for teaching. In order to introduce ICT in pre-service teacher education different methods and strategies are applied. Different tools are used such as word processing, Database, Spreadsheet etc. Various technology based plans are used to help the teachers for their practice teaching. ICT prepares teacher for the use of their skills in the real classroom situation and also make students for their future occupation and social life. ICT used as an „assisting tool“ for example while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently from the subject matter. ICT as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks. ICT as a popular tool for organisation and management in Institutions. Teachers must provide technological support to learn using motion picture, animation, simulation training which helped student teachers to give model presentation. If the teacher is highly equipped with technology, the student will also be equipped with technology. It removes the traditional method of teaching and prepare teacher to apply modern method of teaching. ICT is plays an important role in student evaluation.

ICT is store house of educational institution because all educational information can safely store through ICT. ICT helps Teacher to communicate properly with their students. So ICT bridge the gap between teacher and students. ICT helps Teacher to pass information to students within a very little time. ICT helps Teacher to design educational environment. ICT helps Teacher to identify creative child in educational institute. Role of ICT in 21st Century's Teacher Education 5 ICT helps Teacher to motivate students and growing interest in learning. ICT helps Teacher for organizational preconditions (vision, policy and culture). It is also helps Teacher for their personnel support (knowledge, attitude, skills). ICT helpful for technical preconditions (infrastructure). ICT helpful for designed learning situations which are needed for both vocational education and the training of future teachers (in the teacher training institutes). Teacher training institutes can develop their curriculum using ICT. With the help of ICT Teacher training institutes can develop communication network. Teachers learn most from their own networks (learning from others) with the help of ICT. Conclusion:- Teaching occupies an honorable position in the society.

ICT helps the teacher to update the new knowledge, skills to use the new digital tools and resources. By using and acquire the knowledge of ICT, student teacher will become effective teachers. ICT is one of the major factors for producing the rapid changes in our society. It can change the nature of education and roles of students and teacher in teaching learning process. Teachers in India now started using technology in the class room. Laptops, LCD projector, Desktop, EDUCOM, Smart classes, Memory sticks are becoming the common media for teacher education institutions. So we should use information & communication Technology in Teacher Education in 21st Century as because now teachers only can create a bright future for students.

### **THE IMPORTANCE OF USING ICT IN TEACHING-LEARNING PROCESS:-**

Several studies argue that the use of new technologies in the classroom is essential for providing opportunities for students to learn to operate in an information age. It is evident, as argued that traditional educational environments do not seem to be suitable for preparing learners to function or be productive in the workplaces of today's society. She claimed that organizations that do not incorporate the use of new technologies in institutions cannot seriously claim to prepare their students for life in the twenty-first century. This argument is supported by Grimus who pointed out that "by teaching ICT skills in higher educational institutions the students are prepared to face future developments based on proper understanding". Similarly, reference reported that "what is now known about learning provides important guidelines for uses of technology that can help students and teachers develop the competencies needed for the twenty-first century" (p. 206). ICT originally is applied to serve as a means of improving efficiency in the educational process [8]. Furthermore, it has been shown that the use of ICT in education can help improve memory retention, increase motivation and generally deepens understanding . ICT can also be used to promote collaborative learning, including role playing, group problem solving activities and articulated projects . ICT allow the establishment of rich networks of interconnections and relations between individuals . Some authors maintain that technology has the power to change the ways students learn and professors teach . Still other authors posit that technology can "revolutionize" the learning process . In other words, ICT extend professors' and students' capabilities, and their well determined use can transform roles and rules in the classroom . Many people recognize ICTs as catalysts for change; change in working conditions, handling and exchanging information, teaching methods, learning approaches, scientific research, and in accessing information. Lecturers could use ICT to facilitate learning, critical thinking and peer discussions. Reference , recognize that technology-based teaching may not be essential in all classes but generally it is most facilitative as a result of providing relevant examples and demonstrations; changing the orientation of the classroom; preparing students for employment; increasing flexibility of delivery; increasing access; and satisfying public demands for efficiency. "The whole purpose of using technology in teaching is to give better value to students". This better value should also impact the learners/students' performance. Reference , argue that ICT holds much promise for use in curriculum delivery. Thus, technology can effectively improve teaching and learning abilities, hence increasing

learners" performances. As and posit, ICT has the means to aid in the preparation of learners by developing cognitive skills, critical thinking skills, information access, evaluation and synthesizing skills. In addition, ICT provides fast and accurate feedback to learners.

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Chief Editor : Odisha Journal of Social Science

2624/3484, Baragada Canal Colony, At/Po. BJB Nagar, Bhubaneswar - 751014, ODISHA (INDIA)

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