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## FROM THE VICE CHANCELLOR'S DESK

Bharat is a land of spirituality and knowledge. The ancient time has reflected this fact as an authentic fact. The source of all knowledge has been the education. Education is a continuous process of enlightenment. The holistic education depends on the way education is imparted, the way one perceives it and accumulates in oneself. Often it is seen as imbibing education is not an easy task. It is like obtaining education is putting oneself



into deep water because looking at education from various perspectives reflects its innovative appearance. Often it appears in the form of gaining skills and most of the time its reflection is seen and felt in the behavior of individual. It is not merely the numbers reflected in the mark sheet of the students. The parameters of education too depend on the person who wishes to obtain it.

The definition of the education is also changeable but life itself teaches many lessons. Entire life of the human being is a school of knowledge. Every individual seeking knowledge has to go through the process of devotion and dedication, ultimately perseverance assists the individuals to obtain the sweet fruits of knowledge.

Philosophy of education explains that the individuals dedicating and devoting towards obtaining education is ultimately searching a self identity, purpose of life through the assistance of other fellow human beings and community in a natural setting. Through this entire process the individual expects peace and compassion in all the individuals. This assists the human beings consciously practice community coherence and protection of natural eco system. In this entire process the *PanchKosha* play a crucial role. To obtain holistic development the individual needs to value the human existence and care the natural environment. By respecting the nature the individual learns and masters the different arts like music, drama, painting and so on. By doing so one strives to imbibe bliss and that bliss helps individual to realize oneself.

Holistic education is the need of the hour and the radical demand of the present time. The educational fraternity has to explore the availability of the exploring different ways to obtain the holistic education as the fraternity leads the society with its broader perspectives.

I wish the teachers, scholars and the seekers of knowledge to reach the highest and happiest climax of obtaining knowledge.

Regards,

**Mr. Harshad P. Shah**  
**Vice Chancellor**  
**Children's University**



## FROM THE CHIEF EDITOR'S DESK

Covid-19 Pandemic has terrified the human beings in critical situation. Every aspect of life is affected of human existence. The educational institutions are not bared from the pandemic. Students in the present day are in a world of hasty transformation and technology developments. In this circumstance, the education sector especially of higher learning is challenged to respond to the needs of these changes. The education sector through the curriculum must fit the world of technology as well as the social and economic demands for the student to endure and be competitive. Teaching learning institutions must be more concerned and committed in the preparation of students to confront these challenges as well as future wards of society is the need of the hour.



Education is a very significant aspect of the lives of all human beings all over the world. The learning shapes the human being with attitude, attribute and awareness. Human beings carry the education and shape received is carried by individual wherever one goes around. Our education is the foundation of who we are, since every decision we make and every thought we think is dependent on what we know. Imagine how different the world would be if everyone craved learning to such a degree that at lunch tables all over the world the topic of conversation isn't who likes who, or how drunk someone got over the weekend, but it would be what books were read over the weekend, and what new ideas were thought of.

Bharatiya education classification, for a long time, is faced with the problem of inaccessibility and low-quality education that make individuals unemployable. Due to this, Bharat being the youngest country is not able to use the potential of its human capital to its fullest sense. Education is one of the vital tools that help a nation to develop and grow immensely. The government needs to address this issue through proactive involvement for the betterment of all citizens of the potential nation.

National Education Policy 2020 is sweeping in its vision and seeks to address the entire gamut of education. It acknowledges the 21st century need for mobility, flexibility, alternate pathways to learning, and self-actualization and can prove to be a game changer for India.

Regards,

**Dr. Jignesh B. Patel**  
**Chief Editor,**  
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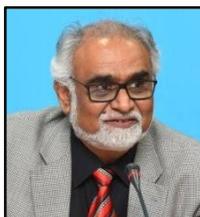
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## Applicability, Opportunities, and Challenges in Integration of Information and Communication Technology on Science Education

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### *Abstract*

Integration of Information and communication technology (ICT) in teaching-learning of science enhances the pedagogical enrichment of scientific facts. Modern tools of communication technology are capable of creating teaching-learning scenarios from anywhere (it means At Home, School, Collage, Institute, and other types of organization) and learners can access science learning from without physical limitations. Because at present, learners, teachers and educators are showing high expectations on ICT integration in science education.

This paper tell us about the these objective such as: (1)To identify the applicability of integration of ICT (2) To identify the opportunities' of integration of ICT (3) To identify the basic efficiency/accountability of integration of ICT (4) To identify the barrier's in integration of ICT in Science Education. The reviewed paper in this study are collected from Google scholar and open search on the Google, with the inputting words related to title. Findings suggested with help of deep reviewing reference articles and papers

The research tells about the applicability's, opportunities, and barriers' in process Integration of information and communication technology on science education and relationship between competency and confidence between the pedagogy and science concepts. At present scenario, educational world are promoting science education through the integration of ICT using the SWAYAM, MOOCs, Commonwealth of learning platform etc. They also introduce many degree, diploma, and certificate courses in science and other disciplines of knowledge. Therefore we must need to aware about the applications, opportunities and challenges in integration of ICT in science education.

**Key Words:** Information Communication and Technology(ICT), Science, Integration, Opportunities, Applicability, and Barriers, etc.

## Introduction

Scientific Innovations have changed the utilitarian view of information and communication technology systems in the globe. Modern system of information and communication technology (ICT) provides a dynamic and attractive teaching-learning environment of science. Scientific innovations offer many tools for teaching-learning science that are beneficial for the learners' deeper learning of scientific concepts. ICT integration in science education as the process of determining how technology fits in the facilitating and learning scenario. It is enabling everyone at any time anywhere to learn the scientific facts, knowledge, ideas, and practicum from the internet application. Huge research points out the applicability of ICT and they talk about how ICT can make a leading role for improving learners' science learning.

Teachers' needs to drill on ICT based practices for improving their science related ICT integrated pedagogical practices. Scientific innovations and integration of ICT are preparing and promoting the face of future challenges based on scientific understanding. Scientific innovations and researches believe that ICT use can help learners grow scientific competencies and fulfilling needs of the current and further globalization. It is because ICT integration with science can develop the learners' skills that boost their motivation for generating scientific ideas. Integration of communication technology (ICT) creates an information highway for the learners to establish scientific and critical thinking. This is to enable scientific creativity and competency for the present global scenario. Integration of ICT in science education will ensure that society needs and explores scientific innovation with the help of ICT, because ICT is highly regarded by global learners.

Integration of ICT in science education are beneficial for the various accepts of science pedagogy such as: Access, Aggregation, Manipulation, Rearrangement, and Repurpose of science knowledge (Bidarra, J., & Rusman, E. 2017). Integration of ICT produce self-learning management techniques in chronic period of COVID-19 spread. Where ICT makes significance role in mathematics teaching-learning process in different aspect of learning as accessibility, accountability and autonomy of learning in during choric period of COVID-19 spread. Students' are getting empathy, feedback, hope, joy, and sense-making guideline form their teachers' with keeping trust in during pandemic (Dadgar, M., & Joshi, K. D. 2018).

## Objective

For constructing this paper authors develop the conceptual objective for developing this paper such as follows:

- To identify the applicability of integration of ICT in Science Education
- To identify the opportunities' of integration of ICT in Science Education
- To identify the basic efficiency/accountability of integration of ICT in Science Education
- To identify the barrier's in integration of ICT in Science Education

fulfilling the needs these objectives researcher search articles and papers with the help of Google scholar and open search on the Google, with the inputting those words such as: accessibility, applicability, opportunity and barrier's in integration of ICT in science education and deep

reviewing reference articles and papers for developing clear conceptual understanding about the integration of ICT in science education.

### **Basic Knowledge of Integration of ICT in Science Education**

Basic Knowledge of Internet application which provides help in Integration of ICT in Science education.

- Knowledge of Internet application
- Knowledge of web conferencing tools like Zoom, Skype, Deco, Google meet, Microsoft meeting, etc.
- Knowledge of social networks such as Facebook, tweeter, what Sapp, YouTube, telegram, Instagram, etc.
- Capability of identification of icons and logos.
- Knowledge and applicability of operating systems and application software.

### **The applicability of integration of ICT in Science Education**

The usability of ICT tools has been enhanced the interactive and produce the attractive solutions' of science (Kim, H. J., & Kim, H. 2017). And integration of ICT in science teaching enhance the learners engagement and collaboration environment in the classroom, promoting effective and attractive shearing and facilitating of scientific content, creating continuous feedback and assessment environment of science classroom, and creating professional and individual development environment (Valverde-Berrocso, J., Garrido-Arroyo, M. D. C., Burgos-Videla, C., & Morales-Cevallos, M. B. 2020). There are some directly related factor related science learner as follows:

1. ICT Integration helpful in understanding Learners characteristics and learner abilities.
2. ICT Integration helpful in understanding Science teaching-learning process.
3. ICT Integration helpful in Planning and proceeding Science Curriculum at different stages of education (Primary, Secondary, higher Secondary, and University education).
4. ICT Integration makes a significant role in facilitating, elaborating, exposing and presenting online scientific content in online and offline form.
5. ICT Integration in Science for elaboration and exposition of scientific fact, theory, and ideas.
6. ICT Integration in instructional management as learning managements (LMS)
7. ICT Integration in facilitating Science Content
8. ICT Integration in carrying feedback and taking learner assessment
9. ICT Integration in analysis of science content

### **Some applicable Benefits of ICT Integration in Science Education**

Emerging educational practices are beneficial for the academic enhancement such as: (1) e-learning is a powerful tool and learner should be adopt it in science learning (2) e-learning reduce the financial costs of the education (3) e-learning enrich the academic offer and large amount of information's related to science learning (4) e-learning produce the large range of

science based activities (5) e-learning developed the more competence in science education. And application ICT integration in science education produce large scale of benefits such as: (1) Integration of ICT in science education enhances the attractive and Innovative learning environments. (2) Integration of ICT makes more motivated and deepen conceptual understanding in science education. (3) Integration of ICT enabling a wider range of knowledge. (4)Integration of ICT enabling more opportunities of accessing scientific knowledge through web based technology. And internet application developing popularity in globe. (5)Integration of ICT nurturing the learners with capabilities of processing information about science education more efficiently. (6)Integration of ICT in science learning develops learners' attitudes with capabilities of science learning and possibilities. The modern era of science education changes rapidly with integrating ICT in science learning and its development. The integration of ICT in classroom context is getting meaningful helpful learners learning in science, and creating collaboration with science understanding (Ghavifekr, S., Razak, A. Z. A., Ghani, M. F. A., Ran, N. Y., Meixi, Y., & Tengyue, Z. 2014). And some applicable benefits of ICT integration in science teaching such as: (1) enhancing learners' engagement and collaboration in the science classroom, (2) promoting effective shearing and facilitating scientific environment and content, (3) creating continuous feedback and questioning about the science, and (4) creating individual learner professional development ((Valverde-Berrocoso, J., Garrido-Arroyo, M. D. C., Burgos-Videla, C., & Morales-Cevallos, M. B. 2020).

### **The opportunities' of integration of ICT in Science Education**

There are some ICT integrated opportunities to directly relate to science education which are increasing the learner achievement in science and engagement of learners in classroom (Valverde-Berrocoso, J., Garrido-Arroyo, M. D. C., Burgos-Videla, C., & Morales-Cevallos, M. B. 2020). such as follows:

1. Understanding of basic aspects of scientific approach.
2. The effectiveness of ICT application in facilitating and learning of science.
3. ICT can provide the help conceptualization of scientific concepts of science.
4. ICT provides help in drill skill of science.
5. ICT providing tutorial instruction of science.
6. ICT creates an integrated learning system with social sites such as Facebook, twitter, you tube, etc. and providing
7. ICT makes stimulations and motivation for the conceptualization of scientific concepts.
8. ICT Integration helps in controlling and monitoring in science experimentations.
9. ICT integration makes interactive multimedia fixture of science concepts.
10. Integration of ICT Science makes assessing and sharing information with the help of the internet.
11. ICT integration makes learning more effective.
12. ICT integration increases learner motivation and quality of content with respect to audio-visual effects. .
13. ICT integration enhances learners' sense of conceptualization of scientific concepts.

14. ICT integration in science provides learners' huge resources of learning.
15. Integration of ICT helpful in improving learners' achievement in science learning.
16. Integration of ICT gives autonomy for learners and creates an autonomous learning environment of science learning.
17. Integration of ICT helps in reducing the burden and pressure of conceptual difficulties in science. And its create the learning environment “joy” and “Happiness” which are beneficial for the sound learning according to Learning without Burden (Yaslpal,1993
18. Integration of ICT enhances learners' scientific, and logistic skills.
19. Integration of ICT creating fresh look for science teaching-learning, and this helpful to reducing workload and mental pressure of learners as Teachers, Facilitators, Educators, and Students..
20. Integration of ICT helpful to reducing institutional and instructional burden and increasing quality instruction.
21. Integration of ICT helps increase the conceptualization process of science learning.

### **The basic efficiency/accountability of integration of ICT in Science Education**

Integration of ICT in science teaching we need to increase the usability of science content and practicum (Valverde-Berrocso, J., Garrido-Arroyo, M. D. C., Burgos-Videla, C., & Morales-Cevallos, M. B. (2020). Application of integration of ICT in Science education simulate, modulate, and Present scientific conceptual knowledge and issues with the help of technology. Component of ICT Integration of Science education which enables the effective efficacy for gaining scientific knowledge, such as follow:

- Vision of ICT integration of science
- ICT tools (Infrastructure such as hardware and software)
- Teachers/Facilitators and Teaching/Facilitating
- Learning Components of science (life science, social science, pure science, engineering science, geoscience, bio science, etc.)
- Scientific skill development
- Assessment and evaluation
- Organizational/ Institutional support

### **Barriers in Integration of ICT in Science Education**

Science students were faced the lot of challenges related to information and communication technology (ICT) tools and resources' use, such as lack of ICT devices such as: computer, laptop, mobile, etc.), electricity and internet connectivity problem specially poor internet connectivity, expensive nature of internet subscription, and lack of necessary competency in related to use ICT devices (Bello, U. L., Hassan, L. A. E. A. E., Yunusa, U., Abdulrashid, I., Usman, R. H., & Nasidi, K. N. 2017). Some common barriers in our around us are most common but we are not enable to dispose it, the classification of barriers in integration of ICT in science education are classified in four areas such as: (1) human factors such as mindset and confidence of teachers, educators, and higher authorities (2) intrinsic value such as interest, believe, and

satisfaction factors related to science teachers ((3) requirement of technological tools which are applicable to access and adoptable of science learning such as: hardware device and software applications. (4) Environment factors such as network connectivity and circumstances of scenario such as: institutional policies and political, institution economic policies and economic condition, teachers economic conditions, ideologies of teachers' and institution, cultural intention of institution, and psychological things and surroundings of institution (Mercader, C., &Gairín, J. 2020).

Mercader, C., &Gairín, J. 2020) are also focus on the typological barriers which are divided in four areas such as: personal, professional, institutional and contextual. Personal barriers which are related to characterizes bases of the many things such as: Teachers and educators attitude towards integration of ICT in science, technophobia in teachers mind, lack of interest and curiosity in ICT integration, and lack of confidence adopting ICT integration, life failures', and rejection of proposal work by senior authority. Profession barriers classified such as: (1) lack of training and training platform(2) lack of pedagogical existence of ICT integration in science (3) lack of practices and experiences of teaching with technology(4) knowledge of didactic use of technological tools(Mercader, C., &Gairín, J. (2020). And other barriers' in related to integration of ICT in science education author described such as follows:

- Lack of facilitating and educating, competency of science
- Lack of ICT tools handling competency such as computer competency,
- lack of competency in concerning ICT
- Lack of experience facilitating with scientific knowledge with the help of ICT
- Lack of Social and elaboration behavior with facilitating science.
- Lack of inconvenience rescues of integration of science education.
- Lack of ICT knowledge and Integration of ICT in science education.
- Facilitators and educators behaviors' with respect to integration of science education.
- Economical expenditure of organization/institution with refresh to integration of science education.
- Motivational level of the organization with respect to integration of science education.
- Learners' awareness and attitudes towards the integration of science education.
- Traditional approaches of learning developing barriers as adaptation of learning and integration of science.
- Poor motivation from family member and family members and faculty members(Bello, U. L., Hassan, L. A. E. A. E., Yunusa, U., Abdulrashid, I., Usman, R. H., &Nasidi, K. N. 2017).

Integration of ICT in science education are plays a significant role in facilitating and educating science learning. Integration of ICT in facilitating and educating practices is complex and challenging issue in science education. TPACK Model also focuses on the five-stage developmental process of integration of technology in facilitating and learning science(niess,sadri,and lee 2007). Such as:(1) Recognizing scientific knowledge, which are enable through the technology with the help of facilitators provide the enabling link of ICT integrated science content. (2) Accepting (Persuasion of Science), by which facilitators' favorable and unfavorable attitude towards facilitating and learning science content with appropriate technology. (3)Adapting (Scientific decision), by which facilitators engage in scientific activities

that lead to a choice to adopt or reject facilitating and learning specific science content with appropriate technology (4) Exploring (in the sense of implementation of Science), by which facilitating facilitators actively integrate facilitating and learning of scientific content with appropriate technology. (5) Advancing (Confirmation of scientific knowledge), by which facilitators redesign the curriculum and evaluate the results of the decision to integrate facilitating and learning science with technology. Intel and Microsoft also supporting the integration of ICT in science education and give their contribution reducing the barriers' and obstacles' in integration of ICT in science and other education.

### **Integration of ICT in Science Classroom**

Today we observe that 'the scenario of the science classrooms or general classrooms are changing. Modern classrooms are replace the Black Board, White Board, and Marker Board and placed the Digital Board and Smart Board in the classroom(Bidarra, J., &Rusman, E. (2017). If teachers are competence with handling the Smart and Digital Board with producing the content (scientific, theoretical,descriptive, conceptual and empirical, etc.). If they find the difficulties in their mind in mid between the classroom to elaborate the scientific content and other content with the help of technological tools(Ghavifekr, S., &Rosdy, W. A. W. (2015).There had opportunities to get verify at the movement by the help of ICT. We are all aware about the present 21st century education system based on the learner centric, and learners had multiple sources of science learning to update their learning with the help of Information Communication and Technology.

### **Conclusion**

Today ICT is not only scientific, technological discipline, they also make space and important in other disciplines of education. Today ICT application and association with social, economics, linguistic and cultural area. Integration of ICT in science education are beneficial for the various accepts of science pedagogy such as: Access, Aggregation, Manipulation, Rearrangement, and Repurpose of science knowledge. Today IT is not only discipline of science and technology it is discipline of shearing, transforming and transmission of information, and its application and ICT associated with social, economic, and cultural matter of information. ICT makes an important role in facilitating scientific content in world-wide view. Learners access the information and knowledge through television, digital media, cable network, internet, and social media i.e. Facebook, twitter,whatsapp, etc. A competent facilitator has several skills and techniques for providing facilitate successful science learning, so today required more competencies with knowledge of ICT and Science & Technology, to integrate with each other. At the present age of modernization of science and technology change the demand and need of the society. Without proper knowledge of ICT teachers', educators', and facilitators' cannot elaborate and transform scientific knowledge in the glove.

### **Reference**

Niess, M. L., Sadri, P., & Lee, K. (2007, April). Dynamic spreadsheets as learning technology tools: Developing teachers' technology pedagogical content knowledge (TPCK). meeting of the American Educational Research Association Annual Conference, Chicago, IL.

- Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, 1(2), 175-191. <https://eric.ed.gov/?id=EJ1105224>
- Ghavifekr, S., Razak, A. Z. A., Ghani, M. F. A., Ran, N. Y., Meixi, Y., & Tengyue, Z. (2014). ICT integration in education: Incorporation for teaching & learning improvement. *Malaysian Online Journal of Educational Technology*, 2(2), 24-45. <https://eric.ed.gov/?id=EJ1086419>
- Bhattacharjee, B., & Deb, K. (2016). Role of ICT in 21st century's teacher education. *International Journal of Education and Information Studies*, 6(1), 1-6. [http://www.ripublication.com/ijeisv16/ijeisv6n1\\_01.pdf](http://www.ripublication.com/ijeisv16/ijeisv6n1_01.pdf)
- Payal, H., & Vinod, K. K. (2018). Learning with ICT: Use & barriers from teachers' perceptions. *International Journal of Recent Science Researches*, 9(1), 23545-23548.
- Dhital, H. (2018). Opportunities and challenges to use ICT in government school education of Nepal. *International Journal of Innovative Research in Computer and Communication Engineering*, 6(4), 3215-3220. <https://d1wqtxts1xzle7.cloudfront.net/56438994/>
- Bello, U. L., Hassan, L. A. E. A. E., Yunusa, U., Abdulrashid, I., Usman, R. H., & Nasidi, K. N. (2017). Challenges of information and communication technology utilization among undergraduate community health nursing students in Tanta University, Egypt. *American Journal of Nursing*, 6(3), 274-279. doi: 10.11648/j.ajns.20170603.26
- Kim, H. J., & Kim, H. (2017). Investigating teachers' pedagogical experiences with tablet integration in Korean rural schools. *The Asia-Pacific Education Researcher*, 26(1-2), 107-116. <https://link.springer.com/content/pdf/10.1007/s40299-017-0331-8.pdf>
- Bidarra, J., & Rusman, E. (2017). Towards a pedagogical model for science education: bridging educational contexts through a blended learning approach. *Open Learning: the journal of open, distance and e-learning*, 32(1), 6-20. <https://doi.org/10.1080/02680513.2016.1265442>.
- Valverde-Berrocoso, J., Garrido-Arroyo, M. D. C., Burgos-Videla, C., & Morales-Cevallos, M. B. (2020). Trends in educational research about e-learning: A systematic literature review (2009–2018). *Sustainability*, 12(12), 5153. <https://doi.org/10.3390/su12125153>
- Dadgar, M., & Joshi, K. D. (2018). The role of information and communication technology in self-management of chronic diseases: an empirical investigation through value sensitive design. *Journal of the Association for Information Systems*, 19(2), 2. <https://aisel.aisnet.org/jais/vol19/iss2/2/>
- Mercader, C., & Gairín, J. (2020). University teachers' perception of barriers to the use of digital technologies: the importance of the academic discipline. *International Journal of Educational Technology in Higher Education*, 17(1), 1-14. <https://doi.org/10.1186/s41239-020-0182-x>

## Panch Kosha and their Development

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### Abstract

The present paper deals with the ancient Indian five-fold model of human personality described as 'Panch Kosha' in Tattiriya Upanishada. Yogic philosophy believes that there are five cardinal layers that surround the human soul. The Atman is at the centre of the koshas. These five layers are also considered the five sheaths of human's personality. These are five different layers of our human growth and evolution. Every human being is endowed with certain physical and psychological features that work together in a holistic manner.

The panch koshas are 'Annamaya' (food sheath), 'Pranamaya' (vital air sheath), 'Manomaya' (mental sheath), 'Vijnanamaya' (intellectual sheath), and 'Anandamaya' (bliss sheath). 'Annamaya'; a segment of human system is nourished by 'anna', that is, food. 'Pranamaya' is that segment which is nourished by 'prana', that is, 'bioenergy'. 'Manomaya' is the segment nourished by 'education'. 'Vijnanamaya' is nourished by 'ego' and 'Anandamaya' is the segment nourished by bliss. All these koshas are considered to reside one under the other, annamaya being the outermost sheath and anandamaya the innermost. These sheaths are interdependent, they have their impact on the development and functioning of other sheaths.

Development of all the sheaths fully is necessary for a man's complete spiritual evolution and ultimate union with the Divine. Simple measures to develop these sheaths have been given in detail.

**Key Words:-** Pach Kosha, Development, Human Personlity

### Introduction

#### PANCH KOSHA

The concept of Panch Koshas was given in the Brahmanandavalli chapter of the ancient Indian text Tattiriya Upanishada which is a part of Tattiriya Samhita of Krishna Yajur Veda. Panch Kosha is a Sanskrit term made up of two words- 'Pancha' and 'Kosha'. Panch means 'five' and Kosha means 'sheath' or 'layer'. The concept of Panch Kosha was also elucidated in many other sacred ancient Hindu texts like Vivekachudamani and Panchdasi. According to Yogic philosophy, there are five cardinal layers/ sheaths that surround the human soul. The Atman is at the centre of the koshas. These five layers are also considered the five sheaths of

human's personality. These are five different layers of our human growth and evolution. Yogic philosophy of panch kosha believes that every human being is endowed with certain physical and psychological features that work together in a holistic manner. According to the Kosha system in Yogic philosophy, the nature of being human encompasses physical and psychological aspects that function as one holistic system. The Kosha system refers to these different aspects as layers of subjective experience. Layers range from the dense physical body to the more subtle levels of emotions, mind and bliss. This **Pancha Koshas theory** is the Vedantic psycho- philosophical view of human beings.

The panch koshas are 'Annamaya' (food sheath), 'Pranamaya' (vital air sheath), 'Manomaya' (mental sheath), 'Vijnanamaya' (intellectual sheath), and 'Anandamaya' (bliss sheath). 'Annamaya'; a segment of a human system is nourished by 'anna', that is, food. 'Pranamaya' is that segment which is nourished by 'prana', that is, 'bioenergy'. 'Manomaya' is the segment nourished by 'education'. 'Vijnanamaya' is nourished by 'ego' and 'Anandamaya' is the segment nourished by bliss.



Figure 1. Five sheath of human personality (source: The kundaliniyoga.com)

### 1. Annamaya Kosha ( The Food Sheath)

The outer part of our body is called Annamaya kosha. 'Annamaya' (Anna means food and Maya means 'made of') is a segment of the human system which is nourished by food . Here food represents the 'physical matter' from which the body formation took place (five great elements- earth, water, fire, space and air) and ultimately dissolves into the same (after death).The food makes human being to survive and after death it goes back to the earth, fertilizes the soil and become food again. The whole process is natural, where the ingredients of the physical structure start from food and go back to become food. Because of this, the first layer of the body is linked with the **mooladhar chakra** and **earth and water** element present in our body.

This sheath contains the great five elements that constitute the physical body with a dominance of 'Tamo guna (Tamas)'. It's perishable in nature and hence, has a beginning and an end (birth and death).

This sheath occurs from the principle of food adopted by the father and nurtured in the womb of the mother. This sheath is the result of the combination of *shukla* (male seed) and *Sonita* (female seed) and depends on food because semen is the byproduct of food synthesis only.

Constitution of the individual consisting of physical, mental, social and emotional traits depend on the condition of annamaya kosha, the formation of which continues in each birth or life one has.

This is the physical body which needs food and nourishment to thrive. It is said to be the most vulnerable of the koshas and manifests in deficiencies on the other layers.

Annamaya kosha relies on shat-bhava-vikara (6 changes) concept viz . Birth, Existence, Growth, Change, Decay, and Death.

## **2. Pranamaya Kosha (The Fundamental Sheath/ Vital Sheath)**

Pranamaya kosha is a restrained sheath of intergalactic energy that surrounds the physical body. It has a sheath of outer space energy that enters and surrounds the outer part of human body. It creates our 'aura', the brightness emitted from us. It also exists within the physical body and is composed of life force energy, or prana. It flows in the circulatory, lymphatic and nervous systems.

'Pranamaya' (vital air sheath) segment is nourished by 'Prana'. Prana is one of the nourishments that are important for our life, just like food and drink. As we take breath, we not only take oxygen inside but also the prana. All food gives us nutrition as well as prana. The prana is also affected by other factors like our thoughts and emotions, and has an impact on other koshas. This sheath contains the **five pranas** that manifest in the physical body and connect it to the next kosha i.e. Manomaya kosha.

Panch pranas and their corresponding physiological systems are described in detail in Ayurveda. These are-

- a. Prana (Sense of Perception): It moves inward the body and controls the perception of the fivefold stimuli received from the external environment.
- b. Apana (Sense of Excretion): It has downward movement. All things thrown out of body or rejected by the body such as perspiration, urine, faeces, semen, menstrual fluids, fetus etc. are expressions of Apana.
- c. Samana (Sense of Digestion): It has an inward movement. This digests the food collected in the stomach and distributes the essence of the food to entire system.
- d. Vyana (Sense of Circulation): Vyana is the faculty, by power of which the nutrients resulting from the digested food are properly conveyed to the various limbs of the body through the bloodstream. Its movement is from center to periphery.
- e. Udana (Sense of Assessment/ Thinking): The capacity in an individual to raise his thoughts from their present level so as to conceive a possibility or approach or idea. It is closely related to the capacity of self-education. Udana has an upward movement.

It is responsible for growth of the body, the ability to stand, speak, effort, enthusiasm and will.

This sheath has a dominance of Rajo guna ( Rajas), hence subtle activities are normal in this layer. This sheath is also perishable and has a beginning and an end. Prana is the life force that is present in the entire cosmos. It is derived from Moola Prakriti or the Divine Mother. This kosha corresponds to the elements of **fire** and **water**. **Manipura** and **swadhishthan chakras** are the seat of pranamaya kosha.

### 3. Manomaya Kosha ( The Mind Sheath)

‘Manomaya’ (mind sheath) is a mental body made by mind, thoughts and emotions and is nourished by knowledge. It is more wide and powerful than Pranamaya kosha. Its scope is unlimited as our mind can reach any place in a fraction of seconds. This kosha regulates Pranmaya kosha.

This sheath contains *gyanendriyas* and *karmendriyas* for interaction with the outer world. *Gyanendriyas* are sense organs through which one perceives objects of the world and *karmendriyas* are organs of actions through which one manipulates with the objects of the world. The mind along with the five senses and corresponding sensory organs - taste (tongue), smell (nose), vision (eyes), hearing (ear), and touch (skin)- is said to constitute the manomaya kosha or ‘mind-sheath’.

This kosha is made of a combination of Sattva guna and Tamo guna. It’s also perishable in nature and has a beginning and an end. The Manomaya Kosh comprises a mental faculty receiving all the sensory signals. Then interprets these signals as positive or negative aspects and at the end aspires to the positive desire.

The primary functions of manomaya kosha are *Sankalpas* and *Vikalpas*. *Sankalpas* are the aspects to interpret the intention and act accordingly and *Vikalpas* refer to rejecting undesirable actions mostly with negative outcome. Our mind is composed with certain traits referred to as *Vrittis*, such as lust, anger, greed, etc. Thoughts in mind continually fluctuate and hence are referred to as *Vikara* (changing traits). Atman has no scope for any change or modification, hence is referred to as *Nirvikara* (changeless). Manomaya kosha corresponds to the **air** and **space** elements and represents **anahata chakra**.

### 4. Vijnanamaya Kosha (The Rational Sheath/ Intellect Sheath)

‘Vijnanamaya’ (rational/intellect sheath) is nourished by ‘ego’. Vijnana literally means **intellect**, hence Vijnanamaya kosha is the intellect/wisdom/knowledge sheath. In the chakras system, this kosha is related to the **vishuddhi** and **Ajna chakra** and predominant with the **air** and **space** element.

Buddhi / intellect with the five organs of knowledge constitutes the Vijnanamaya Kosha or the knowledge-sheath and is also considered to be the part of one’s being that is responsible for will, discernment, and determination. This sheath is the rational component of our being. Our mind is the storage of our past experiences and knowledge which are the prime sources of decision making. The mind receives signals through the sense organs and sends messages to the organs of action. The stimuli received through the five senses are different from each other, but an integrated decision is made by our mind.

It's characterized basically with an involvement with the intelligence even in deep sleep phase, referred to as *Chidabhasa* .

Vijnanamaya kosha is characterized by being interactive and dependent upon the other sheaths for its existence.

### 5. Anandamaya Kosha

Ananda means blissful experience. This sheath is the body of peace. Related to the **space** element, it is superior to all other koshas and difficult to enter or conquer. It corresponds to **sahasrar chakra**. In Advaita Vedanta, anandamaya kosha is referred to as the innermost kosha having close proximity with the soul, hence feels the blissful experience coming out of the soul.

Anandamaya sheath marks the segment which is nourished by emotions and consciousness. This is the intuitive expansive sheath aligned with the causal body and is often thought of as the soul (atman).

The Anandamaya Kosha in its sattvic aspect is the cause of the blissful experience of *Sushupti* or deep sleep pattern. The anandamaya kosha highlights the three positive blissful qualities of the Soul viz. Sat, Chit and Anand.

- Sat refers to being truthful and eternal.
- Chit refers to the one which is alive and has consciousness, the main bridging line separating the living and the non-living.
- Anand refers to an ever-joyful state.

Anandmaya sheath refers to the most subtle body which is perceived in bliss.

### INTERACTION OF KOSHAS

The five sheaths reside one under the other, annamaya being the outermost and annandmaya the innermost. But they are not independent. Every sheath has effects on its previous and next sheath. Their interactive relation is shown in figure 2.

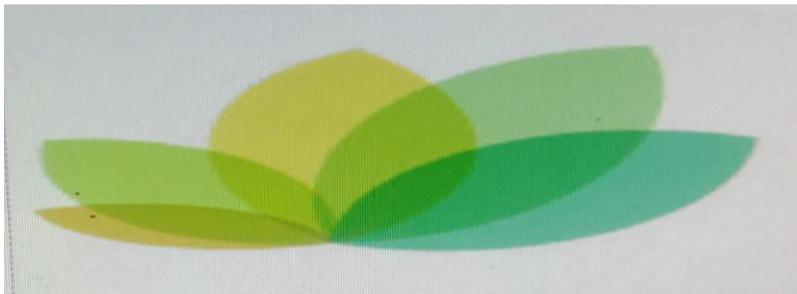


Figure 2. Interaction of five koshas (Source: Iyenger, 2017)

### DEVELOPMENT OF KOSHAS

Ayurveda has constructs that are elemental and based in physiology as well as psychology, it provides a far more globally valid system of determining personality. This ancient Indian system is not only used for maintaining good health, it can also help us balance our personality 'flaws' and enhance our positive traits. By adjusting lifestyle, exercise, and diet – as based on analysis of the gunas and the particular doshas present – Ayurvedic wisdom can assist in modifying behavior and personality as described through panch koshas.

Maharishi Aurobindo emphasizes that panch koshas need to be developed in every child from a young age. They provide him with life-long foundation and success.

Indian spiritual course recognizes the deep reality that panch koshas of a human being possess the potential to develop and progress towards advanced levels of existence (Dalal and Mishra, 2010). It also explains the 'process of evolution of consciousness and thus the consequent growth and development of individual self' (Kiran, 2004).

Development of kosha refers to the overall personality development. This starts from anamaya kosha and moves towards the pure consciousness (real self/ atman) steadily unleashing the five sheaths that cover it. For reaching the higher level of consciousness one needs to develop these five sheaths. Development of all the sheaths fully is necessary for man's complete spiritual evolution and ultimate union with the Divine. To achieve this goal one needs to develop these five sheaths through a certain path-

### **Development of Annamaya Kosha**

Since, this kosha is food sheath, developing it mainly relies upon food. When we eat food, it turns into the muscles, bones, veins, blood cells, etc. Balanced diet and proper exercise helps the annamaya kosha develop well and the individual remains fit and enjoys health. Annamaya kosha can be developed by correcting usual eating habits and performing physical exercises.

1. Taking balanced and sattvik food. Sattvik food endows nourishment to one's body and encompasses the synergy all around.
2. Doing physical exercises like walking, running, yogic asanas etc. In yoga, various asanas are helpful to nurture the body and hence the annamaya kosha.
3. Participating in physical fitness programs like games, sports, aerobics, karate etc. (Praveen,2015)

Along with above measures, following methods can also be adopted to purify and develop the annamaya kosha:

Upavas (fasting), Asanas (Yogic postures), Tatvashudhi (Inner Purification), Tapashcharya (Practice of austerity), and Letting our soul free from worldly attachments.

The first objective of spirituality is freeing the soul from the attachment and identification with the food sheath, which only can be realized when one is aware of the first sheath completely.

### **Development of Pranamaya Kosha**

According to Ayurveda the health problem starts with the level of energy before moving to the level of physique. Pranamaya kosha is refined through the means of air and food we take. The lungs and intestine supply the essence of air and nutrition of food to pranamaya kosha. In this way pranamaya kosha is refined and consequently refines our body and mind.

The symbols of the development of pranamaya kosha are passion, enthusiasm, perseverance, good communication skills, flexibility of body, leadership skills, discipline, honesty and nobility.

The pranamaya kosha can be developed by-

1. Practicing pranayama or various other breathing exercises which promote the excellence of this kosha.
2. Practicing asanas with awareness of breath.

3. Spending more time with activities that keep our spirit high.
4. Spending more time with people who keep our spirit high.
5. Chanting mantras.
6. Practicing silence and meditation.

### **Development of Manomaya Kosha**

Since it is mind sheath, consisting of knowledge, senses, actions, thoughts, emotions, vrittis, vikaras, it is very difficult to control it. Our thoughts are generally free flowing and control over them is very difficult. It is said that one who is able to control his mind, can gain control over his destiny.

Development of manomaya kosha results in sound mental health of humans.

The manomaya kosha can be developed by-

1. Thinking positive.
2. Storing good memories in our mind.
3. Various aspects of yogic practice positively affect this kosha. For example, meditation and alternate nostril breathing (Anuloma-viloma) can calm the mind.
4. Following Yama and Niyama, which are the ten ethical principles of Raj Yoga. These are: non-violence, discipline, purity of thoughts, giving, understanding, truthfulness, non-stealing, non-accumulating, studying Holy scriptures, and devotion to God.
5. Keeping our mind fresh through regular prayers.
6. Making resolutions and fulfilling them.
7. Developing a keen sense of appreciation of fine arts like dance, music and painting etc.

### **Development of Vijnanmaya Kosha**

Vijnanmaya kosha is a layer which gives an opportunity of going beyond self and to be aware of co-workers, other members of community, country and even of the world and sees oneness in all the creatures of the world. Once the vijnanmaya kosha is nurtured, the special powers of the body start functioning. The signs of awakened vijnanmaya kosha are that the person becomes-

- more telepathic,
- powerful in reading others thoughts and influencing them,
- a healer whose words may heal or cure many problems and even diseases.

Vijnanmaya kosha is inherent in the body and is hidden within, so to experience it, we need to release it. Once released this kosha is refined by riding on the wings of detachment (vairagya) and wisdom (vivek). To further develop this kosha will power (Iksha Shakti), passion for work (kriya Shakti) and power of intellect (gyan shakti) are required to be released.

Vijnanmaya kosha can be developed by-

1. Taking sattvik food.
2. Living in a harmonious environment.
3. Keeping good intentions.
4. Practicing meditation.
5. Practicing yogic asanas.
6. Practicing mantra meditation.

7. Practicing awareness of one's self.
8. Performing activities related to intellect, like debates, analytical tasks, project making, reviewing books, interviewing renowned persons etc.

### **Development of Anandmaya Kosha**

After developing all the above four koshas, one reaches to annandmaya kosha. The devotion and belief in God gives way to annandmaya kosha. Wisdom (the true knowledge) also helps gradually in developing this kosha.

To get it in a balanced state, pranayama and meditation practice every day for at least 20 minutes can help a lot.

Awakening of annandmaya kosh can be done by some practices-

1. Seva: It refers to selfless service. Empathy with other beings is necessary for it.
2. Bhakti: Bhakti is pure devotion to God. Practice of bhakti unites the heart of bhakt to all other divine beings.
3. Samadhi: It is the deep meditation which opens our heart to one's own divine being which resides within our soul.

When all the kosha are well developed, refined or awakened the true sense of harmony can be experienced between the intrinsic self and the extrinsic world. This harmony brings happiness, tranquility and a feel of bliss. Here the inner self realizes the presence of God (the infinite being) and is liberated from the cycle of birth and death.

As we all know God resides in each and everything of the world, but He resides in True self. The ultimate goal of spirituality is to liberate the soul from the worldly attachments (Maya) and unite oneself with the supreme, infinite. Since God resides in True self, union with Him needs to move beyond the annandmaya kosha, i.e. the state of bliss. Reaching annandmaya kosha is not possible without awakening of all other four koshas successively. Hence, development of all these koshas is necessary for achieving the ultimate goal of life, i.e. union of soul (Atma) with God (Parmatma).

### **REFERENCES:**

Brahmanandavalli ,Tattiriya Upanishada ,Tattiriya Samhita of Krishna Yajur Veda.

Dalal, A. and Mishra, G. (2010) The Core and Context of Indian Psychology. Psychology and Developing Societies. 22(1) 121-155.

Iyenger, P. (2017) Nobel Deeds and Meditation Work on the Subtle Body.  
<http://yogatherapysolution.com/solutions.php>

Jeevanmoksha.com: Understanding Panch Kosha: Steps Towards Self-Realization, 2017, March,23

Kiran, Kumar S.K. (2004) Perspectives on Well Being in the Indian Tradition. Journal of Indian Psychology. 22(2), 63-72.

Kosha- Wikipedia. <http://en.m.wikipedia.org/wiki>

Praveen, C. (2015) Panch Kosha and Education. www.worldpress.com

<https://medium.com/five-energy-bodies-and-five-elements-of-creation/> journey to seer, feb.23, 2018 the kundaliniyoga.com Five Sheath of Human Personality/

<https://epgp.Inflibmet.ac.in>

# **A Study of Anxiety, Depression and Stress among Higher Secondary School Students**

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## **Abstract**

In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject. At school there is an array of academic pressure derived from a need for perfection, worry over grades, parental pressure, competition, sports and class load. Higher secondary students are vulnerable towards the social environment, including the interactions, social support, social crisis, economic, social mobilization, community approach, the virtual environments such as using the internet and other social media. The pressure faced by the students results in many stressful situations leading to anxiety and depression. This paper aims to study anxiety, depression and stress among higher secondary school students. The objective of the study was to know the level of anxiety, depression and stress among students of higher secondary students. The study also aims to study anxiety, depression and stress among students of higher secondary school with respect to gender. The sample of the study were 50 students of class XI and XII of Bhopal city. The data was analyzed using percentage, mean, SD and t-test. The findings of the study reveal that there are very few students from the selected sample who were suffering from severe anxiety, depression and stress. The effect of gender was not significant in terms of anxiety and depression whereas significant difference was found in terms of stress among male and female students of higher secondary school.

**Key Words:-** Anxiety, Depression, Stress among Higher Secondary School

## **Introduction**

The modern world is said to be world of achievement. We have school, work, family and many more things that contribute to our daily hassles. Life these days is full of stress, anxiety and even many peoples are suffering from depression too. As the education proceed to the higher level the students face more challenges like tough syllabus, challenging work assignments and projects, residing in hostels etc. such challenges need to be handled affectively. If students are unable to cope effectively with these situations in life it leads to various psychological anomalies like anxiety, stress and depression. It is seen many times that students struggle with these situations where they are unable to resolve such situations and they become restless. Therefore, it

is the duty of the teachers, parents and counsellor if needed to help their students adjust from such situations which allow them to have a stable mental health. Anxiety and depression in youth result in functional impairment, increased difficulties with school work, peer and family relationships.

Stress is individuals body response to anything that requires attention or action. Excessive stress could lead to psychological problems like depression and anxiety. Stress is not a disease that cannot be cured but needs to be identified in time and it can be easily cured by making a slight change in the lifestyle to find preventive measures and with proper treatment. Strategies like ABC (Awareness, Balance and Coping) is used for effective stress management. Stress as an interaction between environmental conditions that build stress and reactions for that condition (Lee & Larson, 2000).Kadapatti, Manjula &Vijayalaxmi, (2012) identified stress as career stopper. However, Kaplan and Saddock (2000) found that optimal level of stress helps in enhancement of learning ability.

Anxiety is a psychological stress response often caused by prolonged thought processes which perpetuate it and if ignored anxiety may eventually cause fear, specific phobias and panic attacks.

Depression is a disease that can cause many problems. It never happens for any one reason, but it happens due to many reasons like chemical, physical and mental. A person's inferiority complex, growing frustration, undermining oneself, taking stress are all symptoms of depression.

Students' academic stress leads to anxiety and depression (Deb, Strodl& Sun, 2015; Verma, Sharma & Larson, 2002).Kessler(2005) found that anxiety and depressive disorders are twice dominant in women, compared to men during women's reproductive years.

Prabhu (2015)found that the higher secondary students are having moderate level of academic stress. The male student's academic stress is higher than female students.

Matud (2004) conducted a study on gender differences in stress and coping styles and found that the women scored significantly higher than the men on the emotional and avoidance coping styles and lower on rational and detachment coping. The men were found to have more emotional inhibition than the women. Although the effect sizes are low, the results of this study suggest that women suffer more stress than men and their coping style is more emotion-focused than that of men.

Busari (2014). studied academic stress among undergraduate students and also measured the effect of stress inoculation technique on academic stress. It was found that male students differ significantly in their level of adjustment to academic stress than the females. Further,Stress Inoculation Techniques was effective in fostering adjustment to academic stress among undergraduate students. The technique was also effective on students that attended public secondary schools than those that attended private secondary schools.

Parker & Brotchie (2004)found that sex differences in the development of internalizing and externalizing disorders like depression may be partly due to differences in socialization processes that are strengthened during adolescence and stimulate notions of masculinity and femininity.

Anxiety disorder commonly begins during preadolescence and early adolescence and major depression tends to emerge during adolescence and early to mid-adulthood (Beesdo, Knappe, 2009; Kessler, Wang, 2008; Ohayon & Schatzberg, 2010).

The same situation is not always stressful for all students and all students do not undergo the same feelings or off-putting thoughts when stimulus leads to stress or anxiety or depression. The sources of stress vary despite identical stress responses elicited by the body, understanding the former will help to develop interventions targeted to reduce stress levels of students, which will in turn contribute towards holistic well-being of the individual. Students were considered to be the future pillars who take the responsibilities in better and positive way. Therefore, the investigator decided to analysis the anxiety, depression and stress among higher secondary students. So that the problems among the students can be resolved at initial level.

### **Objectives of the study**

1. To study the anxiety among higher secondary school students.
2. To study the depression among higher secondary school students.
3. To study the stress among higher secondary school students.
4. To study the difference in mean score of anxiety between male and female students of higher secondary schools.
5. To study the difference in mean score of depression between male and female students of higher secondary schools.
6. To study the difference in mean score of stress between male and female students of higher secondary schools.

### **Hypothesis of the study**

1. There is no significant difference in mean score of anxiety between male and female students of higher secondary schools.
2. There is no significant difference in mean score of depression between male and female students of higher secondary schools.
3. There is no significant difference in mean score of stress between male and female students of higher secondary schools.

### **2. Methodology of the study**

For the present study survey type descriptive research method was adopted.

**Sample:** The sample for the study was chosen randomly as the data was collected using google form which contributed to the randomization of the sample. The sample for the study was higher secondary school students (Class XI & XII) of Bhopal city. Total no. of samples was 50.

**Tool used for the study:** To collect the data related to anxiety, depression and stress standardized tool i.e. Anxiety, Depression and Stress Scale (ADSS) developed by Pallavi Bhatnagar, Megha Singh, Manoj Bhatnagar was used. This tool was developed for the individual of the age group from 14 to 70 years.

**Data collection for the study:** The data collection was done using the tool. The tool was converted into Google form. Instruction for filling the tool was mentioned in the google form itself. Link for the google form was shared to students of higher secondary school through WhatsApp group and thus the data was collected.

**Statistical Techniques used in the study**

The data was analyzed using percentage, mean, standard deviation and ‘t’ test for analysis of data.

**Result and Data presentation**

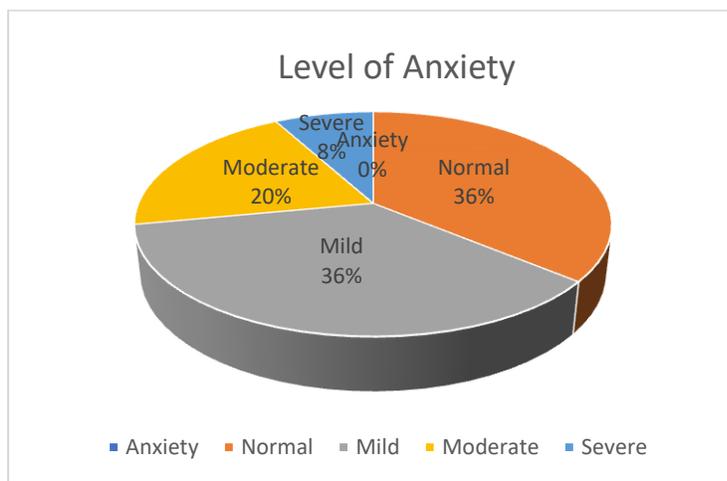
**Objective:1. To study the anxiety among higher secondary school students.**

The first objective was to study was to find out the anxiety among higher secondary students. To fulfill the first objective of the study range of scores, frequency and percentage were calculated on the basis of which level of anxiety among higher secondary students was classified.

**Table.3: Range of Scores, frequency and percentage of students having different level of Anxiety**

Level of Anxiety	Range of Scores	Frequency	Percentage
Normal	0-3	18	36
Mild	3-5	18	36
Moderate	5-9	10	20
Severe	Above 9	4	08
<b>Total</b>		<b>50</b>	<b>200</b>

From table no. 3 it is found that majority of students’ i.e., 36% of students have normal level of anxiety. 36% of students have mild level of anxiety. Around 20 % of higher secondary school students were found to have moderate level of anxiety. There are very few students i.e. 08% of students having severe level of anxiety.



**Fig.1:Level of Anxiety among higher secondary school students**

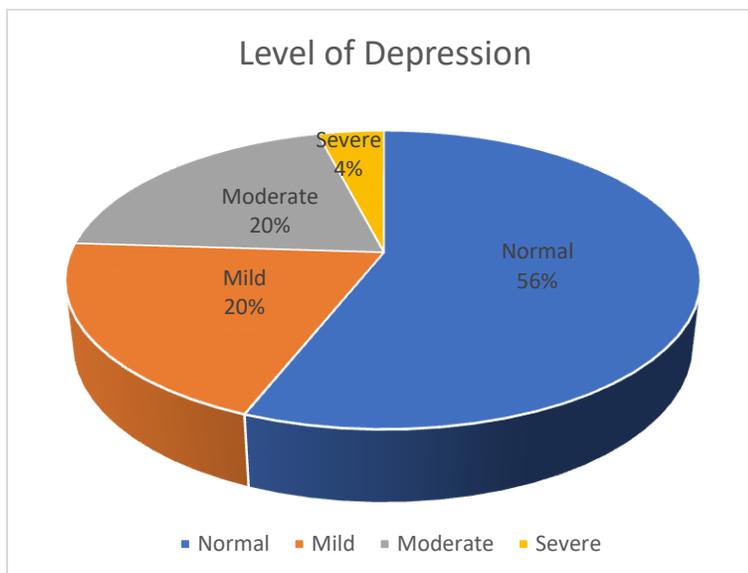
**Objective:2. To study the depression among higher secondary school students.**

The second objective was to study was to find out the depression among higher secondary students. To fulfill the second objective of the study range of scores, frequency and percentage were calculated on the basis of which level of depression among higher secondary students was classified.

**Table.4: Range of Scores, frequency and percentage of students having different level of Depression**

Level of Depression	Range of Scores	Frequency	Percentage
Normal	0-2	28	56
Mild	2-4	10	20
Moderate	4-9	10	20
Severe	Above 9	02	04
<b>Total</b>		<b>50</b>	<b>100</b>

From table no. 4 it is found that majority of students' i.e., 56% of students have normal level of depression i.e. they are not suffering from depression. 20% of students have mild level of depression. Around 20 % of higher secondary school students were found to have moderate level of depression. There are only two students (04%) out of the sampled student having severe level of depression.



**Fig.2:Level of Depression among higher secondary school students**

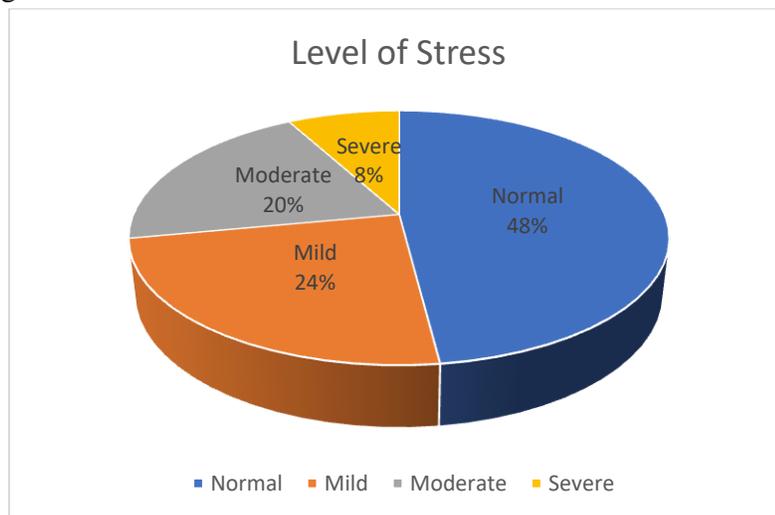
**Objective:3. To study the stress among higher secondary school students.**

The third objective was to study was to find out the depression among higher secondary students. To fulfill the third objective of the study range of scores, frequency and percentage were calculated on the basis of which level of stress among higher secondary students was classified.

**Table.5: Range of Scores, frequency and percentage of students having different level of Stress**

Level of Stress	Range of Scores	Number of students	Percentage
Normal	0-4	24	48
Mild	4-6	12	24
Moderate	6-9	10	20
Severe	Above 9	04	08
<b>Total</b>		<b>50</b>	<b>100</b>

From table no. 5 it is found that majority of students' i.e., 48% of students have normal level of stress. 24% of students have mild level of stress. Around 20 % of higher secondary school students were found to have moderate level of stress. There are very few students i.e. 08% of students having severe level of stress.



**Fig.3:Level of Stress among higher secondary school students**

### Gender and Anxiety

**Objective.4: To study the difference in mean score of anxiety between male and female students of higher secondary schools.**

**H<sub>0</sub>1: There is no significant difference in in mean score of anxiety between male and female students of higher secondary schools.**

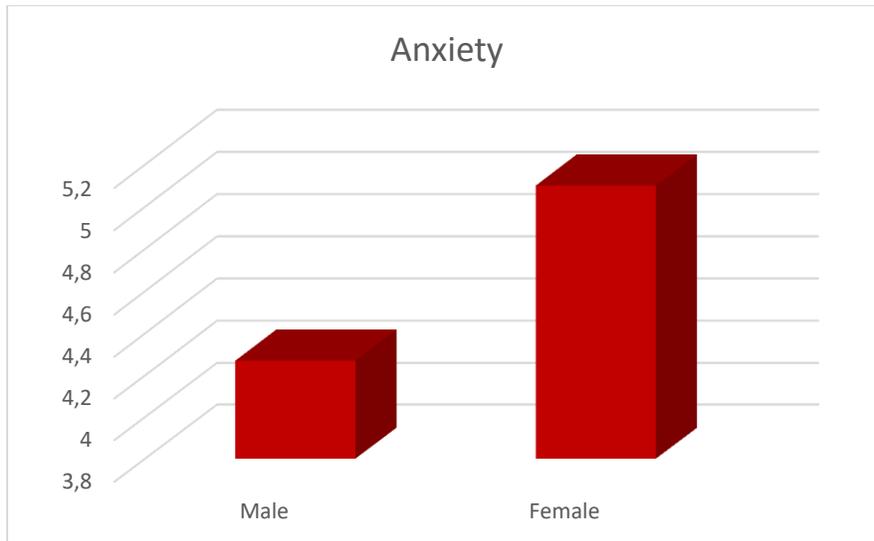
The first hypothesis states that there is no significant difference between mean score of male and female students in respect of anxiety. This hypothesis is verified and shown in table. No. 6.

**Table No. 6:Significance of 't' between male and female students with respect of Anxiety**

Category	N	Mean	SD	Df	't'	Sig
Male	30	4.27	1.91	48	1.079	Not Sig.
Female	20	5.10	3.53			

Table value 2.00 at 0.05 level of significant

Calculated 't' value is found to be smaller than the table value at 48 df, therefore the value of 't' is found not to be significant and the hypothesis is not rejected. Thus, it is concluded that there is no significant difference between male and female students in respect of anxiety. This shows that, no effect of gender difference is found in anxiety of higher secondary school students. Further when the mean of anxiety among males and females were compared it was found that female possess high level of anxiety than the males.



**Fig.4: Means scores of male and female with respect to anxiety**

**Gender and Depression**

**Objective.5: To study the difference in mean score of depression between male and female students of higher secondary schools.**

**H<sub>0</sub>2: There is no significant difference in mean score of depression between male and female students of higher secondary schools.**

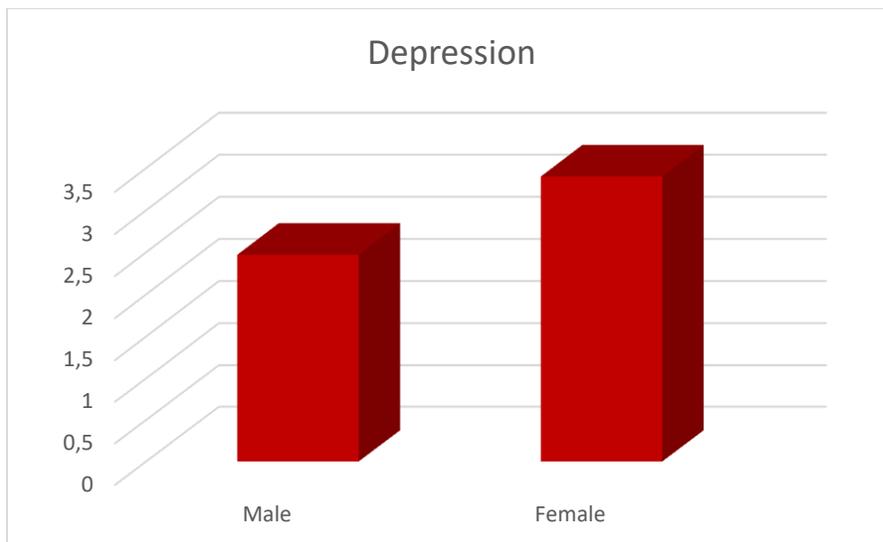
The second hypothesis states that there is no significant difference between mean score of male and female students in respect of depression. This hypothesis is verified and shown in table. No. 7.

**Table No. 7. Significance of 't' between male and female students with respect of Depression**

Category	N	Mean	SD	Df	't'	Sig
Male	30	2.47	2.73	48	1.187	Not Sig.
Female	20	3.40	2.72			

Table value 2.00 at 0.05 level of significant

Calculated 't' value is found to be smaller than the table value at 48 df, therefore the value of 't' is found not to be significant and the hypothesis is not rejected. Thus, it is concluded that there is no significant difference between male and female students in respect of depression. This shows that, no effect of gender difference is found in depression of higher secondary school students. Further when the mean of depression among males and females were compared it was found that female possess high level of depression than the males.



**Fig.5: Means scores of male and female with to respect to depression**

**Gender and Stress**

**Objective.6: To study the difference in mean score of stress between male and female students of higher secondary schools.**

**H<sub>0</sub>3: There is no significant difference in mean score of stress between male and female students of higher secondary schools.**

The third hypothesis states that there is no significant difference between mean score of male and female students in respect of stress. This hypothesis is verified and shown in table. No.8.

**Table No. 8. Significance of 't' between male and female students with respect of stress**

Category	N	Mean	SD	Df	't'	Sig
Male	30	4.33	2.23	48	2.131	Sig.
Female	20	6.20	4.10			

Table value 2.00 at 0.05 level of significant

Calculated 't' value is found to be greater than the table value at 48 df, therefore the value of 't' is found to be significant and the hypothesis is rejected. Thus, it is concluded that there is significant difference between male and female students in respect of stress. This shows that, effect of gender difference is found in stress of higher secondary school students. Further when the mean of stress among males and females were compared it was found that female possess high level of stress than the males.



**Fig.6: Means scores of male and female with respect to stress**

#### 4- Interpretation/Analysis

- It is found that majority of students' i.e., 36% of students have normal level of anxiety. 36% of students have mild level of anxiety. Around 20 % of higher secondary school students were found to have moderate level of anxiety. There are very few students i.e. 08% of students having severe level of anxiety. This could be because of academic activities and the situation of online classes being conducted during this period. The sample was taken from higher secondary students so their examination dilemmas can also cause anxiety among them. Although maximum percentage of the students have normal, mild and moderate level of anxiety it shows that they are somehow able to adjust with the environment and present situation whereas very few students have severe level of anxiety which can be reduced strategically with the help of teachers and parents if required counsellors could also help them out. One way to reduce anxiety could be conversation and discussion among peer group.
- It is found that majority of students' i.e., 56% of students have normal level of depression i.e. they are not suffering from depression. 20% of students have mild level of depression. Around 20 % of higher secondary school students were found to have moderate level of depression. There are only two students (04%) out of the sampled student having severe level of depression. Depression is a psychological situation where students needs support, care and appreciation from their teachers, parents and peers. Only two students of the sampled group are at severe level of depression whereas maximum number of students are at normal level of depression. Although in the present situation the environment around the globe is somehow in negative direction but still the students are trying to cope with the present calamity and are trying to adjust with the environment.
- It is found that majority of students' i.e., 48% of students have normal level of stress. 24% of students have mild level of stress. Around 20 % of higher secondary school

students were found to have moderate level of stress. There are very few students i.e. 08% of students having severe level of stress. Stress has become part of students' academic life due to the various internal and external expectations placed before them. Higher secondary students are particularly vulnerable to the problems associated with academic stress as transitions occur at an individual and social level. It therefore, becomes imperious to understand the sources and impact of academic stress in order to derive adequate and efficient intervention strategies. Improving the holistic well-being of the student would eventually be productive not only the individual but, for the overall productivity of the society as well.

- The value of 't' is found not to be significant and the hypothesis is not rejected. Thus, it is concluded that there is no significant difference between male and female students in respect of anxiety. This shows that, no effect of gender difference is found in anxiety of higher secondary school students. Further when the mean of anxiety among males and females were compared it was found that female possess high level of anxiety than the males. The result of the study is in accordance with the study done by Parker & Brotchie been found that sex differences in the development of internalizing and externalizing disorders like depression may be partly due to differences in socialization processes that are strengthened during adolescence and stimulatentions of masculinity and femininity. Gender differences in anxiety have been reported universally and it could be because of cultural differences, a biological component and socialization process. Gender-role stress has been reported to increase anxiety.
- The value of 't' is found not to be significant and the hypothesis is not rejected. Thus, it is concluded that there is no significant difference between male and female students in respect of depression. This shows that, no effect of gender difference is found in depression of higher secondary school students. Further when the mean of depression among males and females were compared it was found that female possess high level of depression than the males. This may be due to hormonal changes, biological factors, inherited traits, personal life circumstances, conflicts with parents, increasing pressure to achieve in school, sports or other areas of life and other experiences associated with females. The value of 't' is found to be significant and the hypothesis is rejected. Thus, it is concluded that there is significant difference between male and female students in respect of stress. This shows that, effect of gender difference is found in stress of higher secondary school students. Further when the mean of stress among males and females were compared it was found that female possess high level of stress than the males. Matud (2004) results were in accord with the findings of present study where result reveals that women suffer more stress than men and their coping style is more emotion-focused than that of men where as Busari (2014) found that male students differ significantly in their level of adjustment to academic stress than the females. Social roles, family status, social status, gender-role identification and stressful life experiences of male and females plays an important role towards stress. Family dynamics, peer pressure, inability to cope with studies, lack of competence could be the reason behind stress among females. Therefore, the family environment should be congenial and the learning process should

be made pleasurable and parents should avoid making it as a stressful event for adolescents so as to reduce stress among them.

### **Conclusion**

The present study reveals the students of higher secondary schools vary from normal to moderate level of anxiety, depression and stress. Very few among the sampled students are found to have severe level of anxiety, depression and stress. Gender difference in anxiety and depression among students of higher secondary schools was not found to be significant although there is a difference in mean between male and females but there is a significant difference in stress among male and female students. It is also found that female have higher mean than male in anxiety, depression and stress. Although there is difference in gender roles, biological, psychological and social factors could also be responsible for this difference. If we think of school peer pressure, competition, academic achievement, inability to cope with the studies could be the contributing factors. Social factors such as family status, family environment, family dynamics, family education level, neighbours and various factors associated with it, are the contributing elements towards anxiety, depression and stress. Females are more likely than males to seek and receive counselling. Helping women to achieve a greater sense of control over their circumstances and to engage in problem solving rather than emotionality dealing with stressors, as well as changing the social circumstances that cause these reactions, would be useful.

Some strategies which could be adopted so as to reduce anxiety, depression and stress are students should always set 'realistic' goals in life and never let negative thoughts get into one's mind. Knowing the right way to handle stress, anxiety and identifying depressed students in the classroom can make the difference between success and failure for the millions of students going back to school this fall. Techniques like biofeedback, yoga, life-skills training, mindfulness meditation, psychotherapy have been found to be effective in reducing anxiety, depression and stress among students and these techniques should be effectively adopted in schools so as ensure wellbeing of the students. Understanding the sources of stress, anxiety and depression would facilitate the development of effective counselling modules and intervention strategies by school psychologists and counsellors in order to help students alleviate stress. Counsellors in school should understand the source of anxiety, depression and stress from various spheres of student's life which will enable them in the field to tailor and make intervention for students combining the most effective strategies thus improving the holistic life of students.

### **References**

- Beesdo, K., Knappe, S., Pine, D. S. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *Psychiatr Clin North Am*, 32, 483–524.
- Busari, A.O. (2014). "Academic Stress among Undergraduate Students: Measuring the Effect of Stress Inoculation Techniques", *Mediterranean Journal of Social Sciences*, Vol. 5, No.27, December, pp. 599-243
- Deb, Sibnath, EsbenStrodl, & Jiandong, Sun (2014). Academic-related stress among private Kadapatti, Manjula G., & Vijayalaxmi, A. H. M. (2012). "Stressors of Academic Stress - A study on Pre-University Students", *Indian Journal of Scientific Research*, Vol. 3, No.1, July, pp.171-175.

- Kaplan, D.S., Liu, R. X., and Kaplan, H. B. (2005). "School related Stress in Early Adolescence and Academic Performance Three Years Later: The Conditional influence of Self Expectations", *Social Psychology of Education*, Vol. 8, No. 1, March, pp. 3-17.
- Kessler, R. C., Chiu, W. T., Demler O, et al (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders. *National Comorbidity Survey Replication, Arch Gen Psychiatry*, 62, 617–627.
- Kessler, R.C., Wang, P.S. (2008). The descriptive epidemiology of commonly occurring mental disorders in the United States, *Annu Rev Public Health*, 29, 115–129.
- Lee, M., & Larson, R. (2000). The Korean "examination hell": Long hours of studying, distress, and depression. *Journal of Youth and Adolescence*, 29, 249-272
- Matud, Pilar. M. (2012). Gender differences in stress and coping styles. *Personality and Individual Differences*, 37, 1401–1415. · DOI: 10.1016/j.paid.2004.01.010
- Ohayon, M. M., Schatzberg, A. F. (2010). Social phobia and depression: Prevalence and comorbidity, *J Psychosom Res*, 68, 235–243.
- Parker G.B., & Brotchie H. L. (2004). From diathesis to dimorphism: The biology of gender differences in depression. *The Journal of Nervous and Mental Disease*, 192(3) 210–216.
- Prabhu, Suresh. P. (2015). A Study on Academic Stress among Higher Secondary Students. *International Journal of Humanities and Social Science Invention*, 4(10), Pp.63-68.  
<https://www.intechopen.com/books/a-fresh-look-at-anxiety-disorders/examining-sex-and-gender-differences-in-anxiety-disorders>.

## **Nutritional Status of Adolescent Girls: A Study of Slum Dwellers of Surat City**

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### **Abstract**

Adolescent girls are backbone of healthy and progressive family and they are future builders of healthy community. Nutritional status of adolescent girl is valuable in attaining healthy reproductive outcome. A community based cross sectional study was carried out primarily to determine the nutritional status of adolescent girls in the age group of 11-18 years living in urban slum from Surat city. The study is comprised of (n=96) adolescent girls. The primary data was collected through structured questionnaire, using Anthropometric measurements (height and weight) and Focus Group Discussion. The findings of the study revealed that there is poor dietary habits among girls. Analysis of Anthropometric measurements revealed more malnourished status among the respondents and implied the gap in perception of girls' on their nutritional status. Study expresses need for consideration of feedback of beneficiaries in providing Purna Shakti Atta and Iron tablets to adolescent girls of slum area under Supplementary Nutrition Programme (SNP). The paper ends with recommendations to combat multi factorial malnutrition problem.

**Key words:** Malnutrition, Adolescence, Stunting, Wasting, Underweight, BMI Index

### **Introduction:**

India stands at 102 ranked out of 117 countries on Global Hunger Index (GHI) 2019 with a score of 30.3. It indicates that India suffers from a serious level of hunger. The GHI score incorporates four component indicators: undernourishment, child wasting, child stunting, and child mortality.

According to World Health Organization (WHO-2018), Malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. The

term malnutrition covers two broad groups of conditions. One is 'under nutrition'—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals). 22.2% of children globally are stunted children (aged 0–59 months), 7.5% are wasted children, and 5.6% children are over weight. It is further estimated that nearly half of all deaths in children less than 5 years of age in developing countries could be attributed to under-nutrition. Under-nutrition, is a major health problem affecting the development of children in many low and middle income countries.

In India, under nutrition accounts for 45% of children under-5 years of age, hence, mortality alone and remains a key public health challenge in India. According to the NFHS-4, 38 % children in the Gujarat state are stunted, 26 % are wasted, 39 % are underweight and 9.5 % are severely wasted. There was hardly any difference has been observed in the proportion of children (<5 years of age) with wasting between NFHS-3 and NFHS-4; however, there was a reduction in prevalence of stunting by about 10% at the national level. India has unacceptably high levels of stunting, despite marginal improvement over the years.

When we talk about nutritional status among adults, around 1.9 billion adults worldwide are overweight, while 462 million are underweight. 528 million or 29% of women of reproductive age around the world are affected by anaemia, for which approximately half would be amenable to iron supplementation. The nutritional status among adults (NFHS-4) indicates 22.9% and 27.20% of women whose BMI is below normal at India level and Gujarat level respectively. The overview of the data, implies the problem of malnutrition as a significant causative factor for multiple health problems among all age people globally, nationally and locally.

#### **Malnutrition and vulnerability of Adolescence girls:**

Adolescent girls are backbone of healthy and progressive family and future builders of healthy community. To attain healthy reproductive outcome, nutritional status of adolescent girl is highly valuable. Globally, adolescents account for around 1.2 billion, about one-fifth of the world's population. WHO has defined Adolescence as the age group of 10-19 years. Adolescence is considered as a nutritionally vulnerable stage and distinguished from other stages of the life cycle with features of rapid growth and development. This period has also been identified as a period of potential interest in correcting nutritional imbalance and insufficient growth from childhood. During this stage, 25% of adult height and up to 50% of adult weight is attained. Both boys and girls grow faster during this stage. It is a crucial

phase in the life of woman. At this stage, she stands at the threshold of adulthood. This stage is intermediary between childhood and womanhood and it is the most eventful for mental, emotional and psychological well-being. Girls need more protein, iron, and other micronutrients to support the growth spurt to meet the body's increased demand for iron during menstruation. Malnutrition during this stage, poses a variety of threats to women. It weakens women's ability to survive childbirth, makes them more susceptible to infections. It helps them to be productive members of society. Maternal nutrition has direct effects on the health and development of the next generation. Finally, maternal malnutrition's toll on maternal and infant survival stands in the way of countries' work toward key global Sustainable Development Goals (SDG).

For many years, Adolescent girl's health has been neglected because they were considered to be less vulnerable to disease than the young children or the very old. Their health attracted global attention in the last decade only. One-way to break the intergenerational cycle of malnutrition is to improve the nutrition of adolescent girls prior to conception. The Government of India has adopted the most notable, since 1974, the **Integrated Child Development Scheme (ICDS)** to provide a package of services to address the problem of nutrition among children under 5 years of age and primary school students to ensure their holistic development ICDS provides health, nutrition, immunization, preschool education, health and nutrition education, and referral services to young children and their mothers. ICDS also empowers mothers to take better care of their children. The Adolescent Girls (AG) Scheme, implemented by the Ministry of Women and Child Development under Umbrella of ICDS, primarily aims at breaking the inter-generational life-cycle of nutritional and gender disadvantage and providing a supportive environment for self-development. One of the significant scheme is Take Home Ration (THR) under which the adolescent girls are given SNP kit.

**Research Methodology:**

**Objectives:** A community based cross sectional empirical study was carried out amongst adolescent girls who are dropped out from the formal education system and registered with Anganwadi in the age group of 11-18 years from Surat city slums. The study had two objectives: (a) To determine the nutritional status of adolescent girls living in urban slums from Surat City. (b) To understand the perception of adolescent girls about receive dservices from Anganwadi.

**Methodology:** The study is descriptive in nature, comprised of mixed method, qualitative and quantitative method. The multistage stratified sampling method was used and at the final stage volunteer random sampling method was followed. Field study period was from August 2019 to October 2019. The data was collected through structured questionnaire, Anthropometric tools and Focus Group Discussion (FGD) with the girls and Anganwadi Workers. The collected data was analysed through SPSS and content analysis of open-ended questions and FGD.

### **Universe and Sampling:**

Surat city, is the fastest growing city in Asia, Surat Municipality is one of the Oldest Municipality established in 1852 AD. It has total population – 44, 66,826 (2011) and 334 Slum Pockets (2011). The city shows 55.29% recent decadal growth rate and around 37% of the total population reside in slums and slum like areas. The district has Infant Mortality Rate: 17. 98%, Mother's Mortality Rate: 0.46%. Surat is considered to be the city with highest in-migrant population across India. It is known as the fourth fastest growing city of the world. The city is divided in eight Wards/ Zones: West Zone, Central Zone, North Zone, East Zone A& B, South Zone, South West Zone, South East Zone.

As per record, anganwadi started in 1982-83 in Surat district, at present has 1733 Sanctioned and operational Anganwadi (SMC Website). The present study selected Udhana- South Zone –comprised of predominantly residing migrant populations in this zone. There are 33 anganwadi in the zone, divided in to five main clusters having registration of total 415 adolescent girls. The study is comprised of n=96, (23.13%) adolescent girls from 27 anganwadi from Morarji Vasahat, Prabhu nagar and Vijaya nagar area.

### **Tools of Data Collection**

Three types of data collection tools were used in the present study:

1. **Structured Questionnaire** was divided into three sections namely section I: Contained questions related to socio-demographic characteristics such as education level, age, socio-economic status of parent. Section II: contained questions related to Nine Dietary habit and Section III: enclosed questions related to usefulness of services- Purna Shakti Atta and Iron Tablets – distributed by anganwadi under SNP.

(2) **Anthropometric measurements:** Anthropometric measurements [(height and weight- Body Mass Index – (BMI) -A manual –NIN, pg. 45, Dietary guideline for Indians] was used

to measure BMI. The height was measured using a free standing height measurement scale. The height was recorded up to the nearest of 1 cm when the metallic scale was brought down on the head, pressing the hair and touching the head. The weight of the respondent was recorded with the help of platform spring balance, 0 errors was checked and was measured up to the accuracy of 500 gram and the nearest reading was recorded.

(3) Two different sessions of FGD were carried out, first session was carried out with Anganwadi Workers (n=20). The theme of FGD was to understand workers' perception about girl's response about distribution of Purna Shakti Atta and iron tablets by anganwadi. Second session of FGD was carried out with respondents to understand their perceptions about provided Purna Shakti Atta and Iron tablets. Secondary Data was collected from Udhana Zonal office, Records of anganwadi, SMC web Site, Gujarat Government Records, Census 2011.

**Limitations of Study:** The present study is being limited to anganwadi from one ward-Udhana Zone only and due to volunteer random sampling method, the findings have very less scope of generalization.

### **Findings and Interpretations:**

#### **I Respondent's Demographic profile:**

The study comprised of n= 96 dropped out adolescent girls.

**Age:** The mean age of the girls was 17.02 years, ranged between 14-18 years. Majority (50%) of the respondents were of 18 years of age.

**Education:** Majority of the respondents (51%) dropped after 10<sup>th</sup> standard, followed by dropping after the 8<sup>th</sup> Standard. The girls shared common reasons for dropping out; either parents did not have money to send them to college or due to failure in exams or they were to go to villages. Almost all the dropped out girls were predominantly engaged in household chores, only 2% of girls were doing with sewing work, supplying Tiffin services etc.

**Type of Family:** Majority of respondents belonged to nuclear family, those who were from joint family, had their grandparents, uncle and or aunt with them.

#### **Parents' Socio-Economic status:**

**Education:** 62.55 % of mothers were literate, majority of whom completed education till primary level only. 35.40 % of mothers were illiterate. Two respondents did not had mothers.

Whereas 79.20 % of fathers were literate out of whom very few completed secondary education till 10<sup>th</sup> std., 16.70% of fathers were illiterate. Two of the respondents did not have fathers. This data confirms our census data on lower literacy level among women than men.

**Occupation:** Mostly mothers were house maker and about one third were doing sewing work, jari work etc. in the house. Majority fathers were working with textile markets, very few had self-employed like subjilari, selling things door to door etc.

**Income:** All the respondents were from the Above Poverty Line (APL) family, the found monthly mean income per family was Rs. 16161, minimum Rs. 1000.00 & maximum Rs. 45000.00 per month. The three income groups were made namely; Lower Income Group comprised of income less than Rs. 10,000/- to up to Rs. 10,000/- per month, Middle Income Group was comprised of income from Rs. 10001 to 30,000/- per month, the income more than Rs. 30,001/- per month complied in to Higher Income Group.

**Caste:** Majority (37.50%) of girls belonged to OBC, followed by General and ST category 21.90%, 20.80% respectively. Only 16.70% girls belonged to SC category.

The respondents were from the state of Maharashtra, Gujarat, and U P., they used Marathi, Gujarati and Hindi languages in day today communication. Everyone has a Pacca house.

**II Dietary Habits:** The respondents were asked to tick mark (✓) various food items as per its inclusion in their diet- daily/ weekly/fortnightly/not included at all in diet.

**Table 1.1 Dietary Habits among respondents(in percentage):**

Food Item	Daily	Weekly	Fortnightly	Not included
Rotali/Rotala	100	-	-	--
Dal-Rice	39.40	<u>59.40</u>	-	--
Green Vegetables	<u>96.90</u>	3.1	--	--
Salad	13.5	2.1	<u>78.1</u>	6.3
Cereals	12.5	25.60	<u>62.50</u>	--
Curd	10.40	6.30	<u>56.30</u>	<u>27.10</u>
Fruits	31.30	<u>44.80</u>	24.00	
Non- Veg	--	30.80	<u>40.80</u>	28.90
Fast food	8.3	<u>36.50</u>	<u>35.40</u>	19.80

It can be observed from table 1.1, that almost all the respondents (100%) include Rotali/Rotala with green vegetables (96.90%) in daily diet. Majority of girls included dal – rice (59.40 %) and fruits (44.80%) in weekly diet, whereas majority of girls included cereals (62.50%), salad (78.1%)Curd (56.30) and Non- Veg food item (40.80%) fortnightly. Some girls do not include curd at all. Some girls seemed pure vegetarian and do not include non-veg in their diet at all. 8.3 % of the girls are having fast food daily, whereas 71% of respondents having fast food either weekly or fortnightly, whereas 20% of respondents do not include at all in their diet. The findings implies poor dietary habits among adolescence girls.

### **III- Services of Anganwadi:**

All the respondents had mean years of registration of 8.85 years and Minimum of 2 years and Maximum of 13 years. It seems that girls visit anganwadi regularly. Girls are given Purna Shakti Attawhich is the combination of multigrain with added nutrients. 4<sup>th</sup> Tuesday of the month is observed as “Anna Vitran Day” (1kg. per week x 4 packets per month). Further the girls are given Iron Tabletson every Wednesday. Anganwadi also does Immunization programme as per schedule.

#### **(a)Use of Atta:**

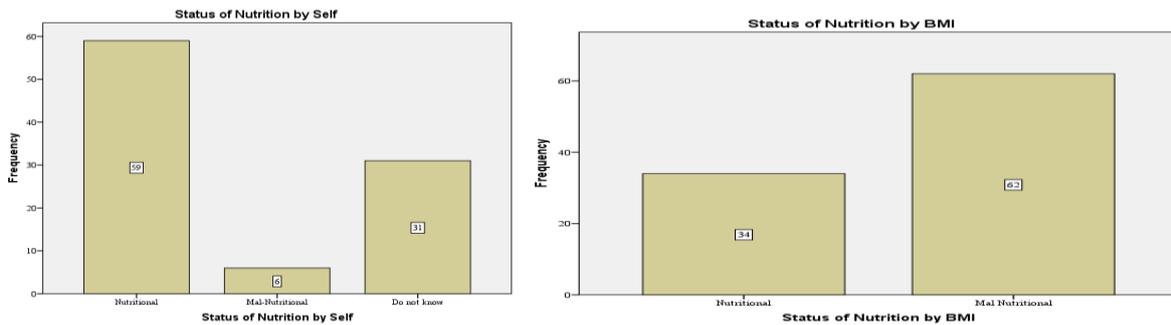
Analysis of data reveals mix feelings about usefulness of Atta among respondents. 85.4% of respondents have said that they are using, and only 14.60% have said that they do not use at all. Further data analysis indicates that those who are using, majority do not like to eat (64.6%) as the taste of Atta is sweet in taste. 38.5 % have tried making new eatable food items; the pala, muthiya, sheera, biscuits, however, they are not able to develop taste of this Atta.

#### **(b) Iron Tablets:**

Every Wednesday Iron tablets are distributed to the girls. Girls collect regularly but majority do not prefer to swallow as it causes pain in stomach. The girls do not experience much difference in stamina as an impact of iron tablet.

### **IV Girls’ perception about their level of Nourishment:**

Fig. 1.1 Girl’s perception about nourishment    Fig. 1.2 Level of Nourishment by BMI



It can be seen from the fig. 1.1 that the majority girls (n=59) perceived themselves as nourished and only n=6 girls perceived themselves as malnourished. Further one third almost n=31 (33%) of the girls were not aware about their nutritional status at all. The fig. 1.2 reveals the opposite picture about nutritional status among respondents. as majority of (n=62) girls found on malnutrition status on BMI, measured through Anthropometric tools. Majority malnourished girls were found at lower than 18.5 BMI, Only 34 girls were found on nutritional line, out of which majority just stood at little more than 19 and 20 on BMI line.

**V Correlations:**

The cross tabulation of the level of income groups with status of nutrition was done to understand the relationship between two variables. It revealed (tab. 1.2) that higher percentage (40.60%) of mal nutritional status is found among lower income group followed by middle and higher income group. Application of the Pearson chi-square test revealed significant correlations (.000<0.05) between the malnourishment and lower level of Income group. However the study could not establish the same correlation with the nourished respondents with higher income group.

**Tab. 1.2 Level of Income and Status of Nutrition by BMI**

Level of Income	Status of Nutrition by BMI		Total
	Nourished	Malnourished	
Lower Income Group	8.3% (8)	<b>40.60% (39)</b>	49.90% (47)
Middle Income Group	20.8% (20)	14.90% (14)	35.40% (34)
Higher Income Group	6.3% (6)	9.40% (9)	15.60% (15)
Total	35.40% (34)	64.60% (62)	100.00% (96)

The study further looked in to the relationship between category of respondents and status of nutrition, the cross tabulation (tab.1.3) revealed that higher percentage of malnourishment was found among OBC category. On the other side, the much difference has not been observed in status of nourishment among the ST and OBC category (10.40% and 12.50% respectively).

Application of the Pearson chi-square test revealed no significant correlations (.528<0.05) between the status of nutrition and category of respondents.

**Tab. 1.3 Category and Status of Nutrition by BMI**

Category	Status of Nutrition by BMI		Total
	Nourished	Malnourished	
SC	7.3% (7)	10.40 % (10)	17.70% (17)
ST	10.40% (10)	14.60% (14)	25.00% (24)
OBC	12.50% (12)	<b>21.90% (21)</b>	34.40% (33)
General	5.20%(5)	17.70% (17)	22.90%(22)
Total	35.40% (34)	64.60% (62)	100.00% (96)

### **VI. Awareness about impacts of malnutrition:**

Girls were asked- “can mother’s malnutrition be a causative factor for Infant Mortality / Mother’s Mortality?” All the respondents were found lacking of significant knowledge about malnutrition as a causative factor for death of a mother/a newly born of new born baby at the time of delivery. However, they said that they had heard of death of mother during delivery or death of new born soon after the delivery.

**VI. FGD with AWW:** The analysis of qualitative data implies that Anganwadi workers seems to do their duties sincerely in extending the services to beneficiaries. They unanimously said that they have tough time to convince the girls for collecting and using Purna-Shakti Atta, as it has sweet taste which is not liked by girls. They further recommended either to improve the taste of Atta or restart the distribution of previous diet kit which included cereals, oil, wheat etc. AWW also gave illustration of Maharashtra government about distribution of kit to adolescent girls. Further they insisted that our Government of Gujarat need to give Wheat, Cereals, Oil, and Masala which is the most preferred by girls. They also shared that girls are complaining of getting pain in stomach due to taking of iron tablets.

**VIII. FGD with Girls:** The analysis of the FGD with girls validated the analysis of FGD with AWW and the quantitative findings on use of Atta, dietary habits and taking Iron tablets. The girls shared that they collect Atta from anganwadi, but afterwards they either give it to cattle or throw in dustbin or some of them leave it at anganwadi gate after it closes down. The girls longed to have diet kit which was previously distributed (cereals, pulses, dal, oil wheat,

etc.).Girls also strongly advocated change in sweet taste of Purn Shakti Atta. Majority girls aspired to join vocational training/ classes if it is started in and around their community

### **Discussions:**

The majority girls were passing through late adolescence period- 18 years with malnourished status. Nourished girls were just above the average BMI line where high risk is sensed in deterioration of nourished to malnourished level.

The findings about poor dietary habits of required nutrients during the growth and development period among adolescence girls indicate unawareness about significance of proper dietary habit. The cereals, curd and fruits – a good source of nutrition are not part of the daily diet. However, the having of fast food is observed among respondents. Findings of the present are validated by many other studies that regardless of wealth, school-age children, adolescents and adults are not eating enough foods that promote health such as fruits, vegetables, legumes and whole grains. Lack of right knowledge about consequences of under nutrition leads to ignorance about proper diet and care during pregnancy.

### **Recommendations:**

NFHS-4 data implies even after 35 years of the launch of the ICDS scheme, the problem of under nutrition still continues and the reduction in the prevalence is relatively unimpressive. Government invest lots of fund in providing diet supplement to children, adolescents and women. The present study has directed multidimensional vigorous task required to combat issue of malnutrition among adolescent girls. Therefore, to sustain or enhance the level of Nourishment among adolescent girls various efforts from Micro to Macro level are required;

- (a) The findings on usefulness of Atta are very serious indicative of wastage of Atta, and invested fund of government. Hence, as a part of community participatory approach the feedback from beneficiaries should be taken into considered as far as SNP kit is considered.
- (b) Small booklet of interesting recipe book can be given to each family to make best use of SNP.
- (c) The need for more community based awareness programme about required changes in dietary pattern, significance of Iron tablet in maintaining level of nourishment can

be done through using various means – media, skit, songs, exhibition of posters, seminars etc.

- (d) AWW significantly recommended to include adolescent boys under SNP as they are equal contributor in production of future healthy generations.
- (e) The present study has widened the scopes of more community based researches to plan out effective strategies at various levels.

### **Conclusion:**

Nutrition is the cornerstone of socio-economic development and that nutritional problems are not just medical problem but multifactorial net working with many other sectors of developments such as education, demography, social and human development at large. Protecting and promoting the health of the adolescent girls is extremely important to reduce the health risks and prevent health problems in adulthood and thus improving the countries' future health. The multi-dimensional determinations are pre-requisite for contributing towards the UN Decade of Action on Nutrition from 2016 to 2025 which aims to catalyse policy commitments that result in measurable action to address all forms of malnutrition.

### **References:**

1. Aganwadi Kendras in Gujarat (2019), available at <https://pib.gov.in/newsite/PrintRelease.aspx?relid=191227>
2. Choudhary K, Shekhawat K, Kawatra A. (2014). “A cross sectional study to assess nutritional status of adolescent girls at a government senior secondary girls’ school at Bikaner, Rajasthan”, *Indian Journal of Community Health*, 2014 Dec 31; 26 (Supp 2):318-21.
3. Chudasama K, Patel U, et al. (2015). “Evaluation of Anganwadi centers performance under Integrated Child Development Services (ICDS) program in Gujarat State, India during year 2012-13”, *Journal of Mahatma Gandhi Institute of Medical Sciences* 2015; Vol. 20 (1):60-65
4. Das DK, Biswas R. (2005). “Nutritional status of adolescent girls in a rural area of North 24 Parganas district, West Bengal”, *Indian Journal of Public Health*, 2005; 49:pp.18–21.
5. National Institute of Public Cooperation and Child Development, (2009). Research on ICDS- An Overview. Volume 3. New Delhi, India: P19.
6. NFHS-3, 2005-06. Volume I. Mumbai, India: IIPS; 2005-06.

7. NFHS-4, 2015-2016 Volume I. Mumbai, India, IIPS: 2015-2016.
8. Ranga Miksha. (2015), “Human development through women empowerment”, *Advance Research Journal of Social Science*, Jun; 6 (1):pp. 102-105.
9. Sawyer, Susan M., et al. (2012) “Adolescence: a foundation for future health.” *The Lancet*, Vol. 379, No. 9826, pp. 1630-40.
10. Sohini Banerjee, Amit Dias, RajalShinkre, Vikram Patel. (2011), Under-nutrition among adolescents: A survey in five secondary schools in rural Goa’ *The National Medical Journal Of India*, VOL. 24, NO. 1, 2011
11. Statistics of Surat Municipal Corporation (2019) available at <https://www.suratmunicipal.gov.in/Zones/Wards?ZoneId=Ku09L8Ue9Sbr52Iwilg04g>
12. Voelker, Dana K., Justine J. Reel, and Christy Greenleaf. (2015). “Weight status and body image perceptions in adolescents: current perspectives.” *Adolescent Health, Medicine and Therapeutics*, Vol. 6, 2015, p. 149.
13. WCD: <http://wcd.nic.in/sites/default/files/AR2003-04.pdf>. (2017) Available at Ministry of Women and Child Development.
14. WHO (2017) Recommendations on adolescent health guidelines approved by the WHO guidelines review committee, Geneva: World Health Organization, 2017. Available at: <http://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions>.

## **Educational Needs and Training for Women Empowerment in India**

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### **Abstract**

The present paper is prepared to identify the areas of training and educational needs for rural women empowerment, the restrictions faced by rural women in hilly regions in the direction of their self-employment and suggestions to overcome some problems. Women empowerment is an energetic and dynamic process that facilitates them to realize their identity and power in all characteristics. Although it allows them to use the knowledge, the more sovereign rights they are in decision making, the better able to plan their work, free them from custom buildings and practises which are not acceptable. Empowerment is a process involving continuous changes in the relationship of power among various groups, individual citizens and social groups in society. The true meaning of the franchise is that it cannot be granted by others but must be increased by those looking for it. However, it is most reliable to view individuals, community groups as a process in which they progress toward organised and open social activities. Empowerment of women can also be used as tool.

**Keywords:** *Educational needs , Women empowerment, Training, Skill, Knowledge,.*

## **Introduction**

The Education, in its ordinary sagacity, is a type of knowledge in which the awareness, skills and lifestyle of a grouping of the community are transmitted as of single age group to the subsequently throughout teaching, or investigation. Learning is characterized as not in a single part; it depends on details, i.e., proper education and casual Education. Appropriate knowledge is the erudition of the skills which we obtain from different agencies such as schools and institutions, while accessible Education is the learning that goes on in everyday existence. Obviously, the informal learning people learned from relations, other societies their associates in different part, proper education is obligatory for giving power to the entity among a few particular abilities that build them renowned in humanity. Women represent approximately to some extent of the social contest, but reasonably instruction altitude as lesser than men. Up to now, India has been giving everyone a complete education after sixty years of independence. The Indian government passed an act in 2005 to make education open to all citizens, and it is still in effect and keeping in mind the needs of society. However, there are several roadblocks in the way of women's education. As a result, there are significant shortages in a variety of areas, including jobs. Women in urban areas have some advantages over women in rural areas, but they are still inferior to men.

For both the government and civil society in India, female education has been a priority for years because of the especially low number of trained women in this country.

As women represent half the population, women can play a tremendously central role in the country's development. This did not believe that women's education pretense by gender discrimination, customs of society that eagerly increased the country's scarcity and backwardness. Education of girls for various public welfare, such as empowerment for women. Women in India face many problems as a result with lack of education, such as domestic abuse, men's inhumanity, gender discrimination, and distribution discrimination. This authority enables them to shift from the margin to the central point. Therefore, the principle of gender fairness is enshrined in the Indian Constitution in its preamble, fundamental rights, fundamental duties and directive principles. The Constitution grants equality to women and empowers the state to adopt measures, a position, in discrimination in favor of women.

### **The objective of the study**

1. To know the role of education for the women empowerment in India.
2. To discuss the impact of early marriage of women on their education.

### **The methodology of the study**

The present study is based on the descriptive type of research. For this study, the researcher used Secondary data. A source of secondary information includes books, confidential sources, journals, newspapers, websites, government reports, etc. With the arrival of electronic media in addition to the internet, secondary data sources have become more effortlessly easy to get to.

### **Empowerment of women through education**

In every culture, state, or nation, female equality is critical. It's a woman who plays a key role in a child's fundamental life. Women play a significant role in our society. Women's empowerment through education will result in a positive attitude shift. As a result, it is critical for India's socioeconomic and political growth. The Indian Constitution empowers the government to take affirmative action to encourage women's empowerment. Education has a huge impact on the lives of women. Women's empowerment is a global problem, and women's political rights are at the forefront of both formal and informal discussions. Political women's right is the front line of many formal and informal worldwide campaigns. Researchers introduced the idea of empowerment of women came in 1985 NAROIBI International Women's Conference. Women's empowerment education is a milestone. So in terms of women's empowerment people can't neglect the importance of education.

### **Conventions to secure rights**

Women's empowerment is a multi-faceted movement that encompasses social, political, technological, and social facets. In India, women's empowerment is strongly influenced by a variety of factors such as geographical location (rural/urban), educational attainment, social status (caste and class), and age. Women's empowerment policies are also in place at the national, state, and local levels at a variety of areas, including health, education, economic opportunities, gender-based violence, and political participation. As a result, the schemes' reach and coverage begin to expand, taking into account programmes for women's economic and social empowerment in order to achieve gender equality. In order to establish more successful policies and programmes for rural development and rural women's empowerment, countries must improve their ability to collect and analyses data that is disaggregated by gender, age, and rural/urban population..

### **Significance and selection of the study area:**

As regards the idealized perception of women and the circumstantial living conditions in which they are found, both in India and in many other countries of the world are massively different. Women now face challenges in Indian society in terms of analphabetism, exploitation, unemployment, women's child marriage, children's marriage, sati, dowry, rape, widowhood and devadasi, and husband and purdah. Each of these has therefore prohibited Indian women from reaching higher levels. For traditional societies, the empowerment of women is even greater than elsewhere.

### **Empowering women as an uplifting tool:**

Empowerment is a process in which the power of relationships between different groups, people and groups in the communities as well as in society as a whole is constantly changed. The core of empowerment therefore is that others cannot give it but that those who seek it must gain from it. But most people are always seen as a process in which people, groups and communities develop to social action in an organized and broad-based manner. The empowerment of women can be used as a tool for significantly changing the socio-economic situation of women.

What are the causes of this dreadful situation? Issues can be many and diverse.

A few basic questions, on the other hand, warrant special attention:

Consciousness deficit

A lack of social and economic empowerment exists.

Insufficient political will

Mechanisms of transparency are delicate.

The police department is not enforcing the law.

Gender culture is lacking.

As a result, here is the question: how can women become more active in politics? The response is usually given in the form of 'reservation.' Simple reservations, on the other hand, would not solve the issue unless and until women are given equal power to work effectively. They become more conscious and aware of their rights and duties.



### **Barriers to equality**

No nation has achieved absolute gender equal opportunity, and women carry on to face sexism and disproportionate opportunities in addition to choices in the world. The situation is particularly dire in most developing countries, where injurious patriarchal practices such as child wedding ceremony and female genital mutilation continue to be the norm. One in every four girls does not complete high school, and one in every five girls marries before reaching the age of eighteen. Child marriage robs girls of their career prospects and they expose them in pregnancy and birth to a risk of death and disability. As a result, the ability of women to choose the number and spacing of their children seems to be relatively low or inexistent in very many developing nations.

A major new study on the state of gender equality in 129 countries, with four out of five women in the lowest ranking countries, shows that there is a continued discrimination against women and girls around the world.

The SDG Gender Index, a new comprehensive tool for tracking gender progress using 14 of the 17 UN's Sustainable Development Objectives, is presented in exactly equivalent Measures 2030 document harnessing the Power of Gender Equality Data (SDGs).

Women empowerment is a critical majority process to lower the fertility rate and reach a sustainable overall population that does not exceed Earth's carrier ability limits. The number of years a woman spends at school tends to be approximately equal to her lifetime childhood. The project, which opposes the use of various practices for the mitigation of varying sorts of climate

change, found that the interiority of children could decrease carbon dioxide in the atmosphere by 103 (a) helping to ensure the deliberate women's right to far above the ground superiority relatives schedules.(Rigatni's).Ensuring the equivalent contribution of girls and women in education and the workplace.

- Charitable women's sovereignty over their bodies, including unrestricted access to modern contraception and abortion.
- Finale the perform of the child- and forced marriage, which disobeys girls' rights to a healthy, fulfilling life.
- Conceding women full equal opportunity under all laws and ending all policies that disadvantage women.
- Eliminating patriarchal attitudes and behaviors that reason women to undergo and that put them off from accessing control positions.
- As long as sufficient parental leave and childcare opportunities make possible, women have the same unconstrained career development as their partners.

Women in the hills are at a more disadvantaged stage, like their counterparts who work in the army, industries, or other income-generating avenues in the plains. It becomes a compulsion for the women to handle both family and agriculture. They have to work throughout the day, starting with their household chores, nurturing children, livestock, going out to bring feed, fuel, fodder and drinking water to sustain their livelihood. Singh and Bhatt (1985) examined the role of women in the agricultural economy of Himachal Pradesh and revealed that among the farm workers, the proportion of females was higher than males. The level of illiteracy was higher along with females as compared to males. Two-thirds of their time was utilized for the tending of cattle and one-third for crop production activities. Changes in crop production technologies of the workload of women in all size farms have improved.

### **Discussion**

#### **NGOs and their Role:**

Non-Governmental Organizations (NGOs) in India have a long and interesting history, but one that has been marked by a fluid relationship with the government and state institutions. Over the last 150 years, Indian governments have shaped Indian NGOs, both in terms of their purpose in society and their often tense relationships with the state, in collaboration with colonial and postcolonial governments. The larger groups of people's expectations that development NGOs promote include alleviating poverty, combating marginalization, achieving social justice, and fostering human rights respect. As a result, the Women's Empowerment Act was enacted.

#### **Conclusion**

The paper concludes that women play an essential and crucial role in recreation within agriculture and related areas. Research shows that women's participation in farming was at its highest level in cuts, pickling, grain cleaning, grain drying, storage, processing and the central area for field cleaning, the cultivation of the planting nursery, the weeding, the shift of production to the threshold, and agricultural women also operates winnowing and grading. When

applying fertiliser to the levelling of the field, they are doing the least job. Farm women, however, are not involved in area plugging, plant protection measures and marketing activities. .

**Reference:-**

- Ahmad R. Bhatt (2015) Role of Education in the Empowerment of Women in India. Journal of Education and Practice
- Ashish, S. (2015). Division of Agriculture Extension ICAR Indian Agricultural Research Institute . New Delhi.
- Bagaul.Dimple.Arya. Chhavi.Thapliyal.Maitreyi.and Rawat Leena. (2017). Socio-economic issues in empowerment of hilly women through information, education and communication(IEC) interventions: A review of past studies. International journal of Applied Science , 4, 25-27.
- Bhuyan.Dasarathi. (2006). Empowerment of Indian women :A study Challenge of 21th Century. Orissa.
- Manonmani.I.K. (2012). A major research project on NGOs in Women Empowerment-A Geospatial study in Usilampatti Taluk Madurai.District, Tamil Nadu. Madurai.
- Prabhat, O. (2016). Role of education in empowering rural women for sustainable development in India. International Journal of Applied research , 773-777.

## **Effectiveness of PBL Programme on Achievement in Mathematics Application Skill**

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### **Abstract**

The present study is experimental nature. The objectives of the study as: (1) To construct PBL Programme of Mathematics in Primary School, (2) To study the effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School boys and (3) To study the effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School girls. The students studying in Gujarati medium primary schools in Gujarat was considered as population of the study. The investigator were selected eighth standard students of two primary schools in Mota-vadala as sample in which one boys and one girls. The two groups of boys were formed for experiment. Twenty students were selected for experimental group as well as control group. Similarly separate two groups of girls will also select for the same treatment. Hence  $40+40=80$  sample students were selected for experimental purpose. Experimental type research Programme was used. The investigator selected True-experimental design namely “Randomized two group post-test only experimental design”. In the present study the investigator constructed standardized Achievement test of Mathematics was used. To find out significant of difference between scores on Achievement test of Mathematics of two groups, statistical technique t-test was used. For that M and SD of Achievement of Mathematical Application Skill scores on post-test (Achievement test of Mathematics) of both groups were calculated. The study revealed that (1) The boys of PBLP-group is more effective than CP-group after Problem Based Learning Programme with reference to Achievement of Mathematical Application Skill and (2) The girls of PBLP-group is more effective than CP-group after Problem Based Learning Programme with reference to Achievement of Mathematical Application Skill

**Key words:** Problem Based Learning Programme, Mathematical Application Skill

### **Introduction**

Problem-based learning (PBL) is an instructional method that challenges students to "learn to learn," working cooperatively in groups to seek solutions to real world problems. These problems are used to engage students' curiosity and initiate learning the subject matter. PBL prepares students to think critically and analytically, and to find and use appropriate learning resources (Duch, 1995). PBL is "an active learning method that starts from a specific problem. It is unclear whether PBL enhances knowledge and skills of students, and whether it increases student motivation and satisfaction. The effectiveness of PBL in terms of increasing student knowledge and skills has been extensively studied in the academic literature for higher education students (particularly in medicinal education programs). Whereas some of the studies reported positive effects of PBL on student test scores, other studies found that PBL-teaching offers no considerable advantages to students in terms of higher gain in knowledge and/or skills. With respect to the effect of PBL on student satisfaction, results show that students in a problem-based learning track are overall more satisfied with their teaching than students in the conventional track. So an important question remains regarding the mathematics education of high ability students: What strategies can be used to challenge these students and foster achievement? Research indicates that students with mathematical-giftedness achieve the most academic gain when presented with curriculum that contains higher order thinking probes; inquiry-based instruction; scaffolding and small group activity; prompts that require problem-solving and reasoning; elaboration; and real-world applications (Erickson, 1999; Gavin et al., 2009; Rotigel & Fello, 2004; VanTassel-Baska, 2013). One such pedagogical technique that combines many of these attributes is problem-based learning (PBL). Recent studies on Effectiveness of PBL Programme on Achievement of Mathematical Application Skill.

### **Literature Review**

Problem based learning encourages students to think and solve problems in a limited amount of time (Cotton, 2011) and provides authentic experiences that foster active learning, support knowledge construction, and naturally integrate school learning and real life (Torp & Sage, 2002). Problem based learning, as an instructional model is receiving increased attention from educational practitioners. The model has developed rapidly in medical school programs since 1980. It is characterized by students' working in small groups to increase knowledge and develop understanding by identifying learning objectives, engaging in self-directed work, and participating in discussions (Barrows & Tamblyn, 1980). It has become a popular mode of delivery in medicine, nursing, and engineering, but far less so in physics. Only in the last decade or so has the teaching of physics through PBL begun to take root (Raine & Collett, 2003). Compared with many pedagogical approaches problem-based learning has emerged relatively recently, being popularized by Barrows and Tamblyn (1980) following their research into the reasoning abilities of medical students at McMaster Medical School in Canada. Barrows and Tamblyn's study and the approach adopted at McMaster marked a clear move away from problem-solving learning in which individual students answer a series of questions from

information supplied by a lecturer. Rather, this new method they proposed involved learning in ways that used problem scenarios to encourage students to engage themselves in the learning process, a method to become known as problem-based learning. In this early version of problem-based learning certain key characteristics were essential. Students in small teams<sup>1</sup> would explore a problem situation and through this exploration were expected to examine the gaps in their own knowledge and skills in order to decide what information they needed to acquire in order to resolve or manage the situation with which they were presented. Aim of PBL is to apply critical thinking, problem solving skills, and content knowledge to real-world problems and issues (Levin, 2001) and to develop self-directed, reflective, lifelong learners who can integrate knowledge, think critically, and work collaboratively with others (Barrows, 1996). The advantage of PBL is that students become more aware of how they can put the knowledge that they are acquiring to use (Hallinger & Lu, 2011). During the past few years, physics education research has primarily focused on students' understanding of conceptual physics and the misconceptions that hinder the learning process (Campbell, 2008). The traditional approach to concept teaching consists of the following steps; giving the student the word that expresses the concept, specifying the definition of the concept and identifying and distinguishing qualities needed to understand the definition, to ensure that students find examples related and unrelated to the concepts. This traditional approach is not effective enough in the learning of concepts (Çepni et al., 1997). This is because it is not enough that a student can only identify and memorize the concepts in order to understand concepts and the relationship between these concepts. Instead of this, proper learning environments should be created for students where they can study and invent their scientific knowledge as scientists. Thus the student, without the need to memorize knowledge, will gain the ability to conceptualize learning. One of the approaches targeting learning through own experience and discovering knowledge is Problem Based Learning - PBL- (Taşkesenligil, Şenocak & Sözbilir, 2008). PBL is informed in sessions within which there are small collaborative groups comprised of 6 or 8 students with guidance from a tutor. They deal with scenarios involving several problems (Akınoğlu & Tandoğan, 2007) that are authentic, complex, ill-structured problems to help students make connections between theory and real-world application, as well as develop their ability to handle the complexity of real world (Hung, 2013).

### **Objectives of the study**

Objectives of the study were:

1. To construct PBL Programme of Mathematics in Primary School.
2. To study the effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School boys.
3. To study the effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School girls.

### **Variables involved in the study**

Two types of variables were involved the study: (1) Independent variable and (2) Dependent variable.

**Independent Variable.**The independent variable of present study was instructional Programme. Two level of Instructional Programme: (1) PBL Programme and (2) Conventional Programme (CP).

**Dependent Variable.**The dependent variables of present study were Scores of Achievement of Mathematical Application Skill.

*Operational definitions of terms*

**Operational definitions of terms as:**

**Problem Based Learning (PBL).**The tenets of PBL are based in constructivist and sociocultural theories; students construct knowledge through a social context. The peer group and the teacher serve as scaffolds in order to facilitate the activation of prior knowledge and higher-order thinking (Gavin et al., 2009; Henningsen & Stein, 1997). In addition, there are two cognitive theory hypotheses as to why PBL is effective – the activation-elaboration hypothesis and the situational interest hypothesis. In the activation-elaboration hypothesis, PBL serves to activate prior knowledge and identify gaps in what the student already knows.

**PBL Programme.**The PBL Programme consists of ten main phases which are:

Phase-1: Review of objectives

Phase-2: Presentation of the “ill-structured” problem or scenario

Phase-3: Assigning roles

Phase-4: Developing a problem statement from the students’ analysis of what they do and do not know

Phase-5: Listing possible actions, recommendations, or solutions

Phase-6: Preparing for self-directed learning

Phase-7: Listing information, resources, processes, etc. needed to solve the problem

Phase-8: Accessing, evaluating, learning, and utilizing information

Phase-9: Presenting and supporting the learning and re-addressing the problem

Phase-10: Assessment

**Achievement of Mathematical Application Skill.** The scores achieved by the learner on the Achievement test of Mathematics prepared by the investigator.

*Hypotheses of the study*

With reference to objective the null hypotheses were framed as:

H<sub>01</sub> There was no significant difference between the average scores on Achievement of Mathematical Application Skill test in PBLP-group and CP-group of Primary School boys.

H<sub>02</sub> There was no significant difference between the average scores on Achievement of Mathematical Application Skill test in PBLP-group and CP-group of Primary School girls.

*Population & sample*

The students studying in Gujarati medium Primary schools in Gujarat was considered as population of the study. The investigator were selected eighth standard students of two primary schools in Mota-vadala as sample in which one boys and one girls. The two groups of boys were formed for experiment. Twenty students were selected for experimental group as well as control

group. Similarly separate two groups of girls will also select for the same treatment. Hence  $40+40=80$  sample students were selected for experimental purpose.

### **Research design**

The investigator selected True-experimental design namely “Randomized two groups post-test only” experimental design.

#### *Time Period of the Experiment*

Two groups in which PBL Programme (PBLP) was conducted in PBLP group as experimental group and other CP group as control group. The experiment was conducted in second term of the academic year 2016-2017. The experiment was continued for fifteen days. Thirty minutes time duration of each period.

### **Tool of the study**

In the present study the investigator in order to trace out students Achievement of Mathematical Application Skill by standardized Achievement test of Mathematics was prepared. The minimum score can be zero and maximum score can be 30. Time duration of Achievement test of Mathematics was 30 minutes.

#### *Formation of Groups*

The sample schools were selected by purposeful sampling technique. The students were identified from primary school students (boys and girls) of Mota-vadala with the help of selected technique. The two groups of boys and girls from selected Mota-vadala were formed for experiment. Twenty boys and girls were selected for experiment in each group (experiment group) and twenty boys and girls were selected for consensual in each group (Control group).

#### *Data collection*

Achievement of Mathematical Application Skill test was administered after the experiment. The student’s scores on the Achievement test of Mathematics were recorded.

#### *Statistical technique used of analysis of the data*

The data were analyzed by statistical technique mean and SD and testing the null hypotheses by t-test.

### **Results and discussion**

Results and discussion of the present study were as:

#### **Effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School boys**

The results of Mean, SD and t-value of after Problem Based Learning Programme in PBLP-group and CP-group of Primary school students’ boys on Achievement of Mathematical Application Skill are presented in Table-1.

**Table-1**

**Mean, SD and t-Value after Problem Based Learning Programme in PBLP-Group and CP-Group boys on Achievement Test of Mathematics**

<i>Students</i>	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>df</b>	<b>t-value</b>	<b>p</b>
Boys	PBLP	20	50.10	8.43	38	20.18	p<0.01
	CP	20	20.21	7.21			

The Table-1 presents a significant difference between ABLP-group and CP-group boys. The PBLP -group boys were found having significantly better Problem Based Learning Programme as compared to their CP-group boys ( $t=20.18$ ,  $df=38$ ,  $p < 0.01$ ). Thus the null hypothesis  $H_{01}$  “There was no significant difference between the average scores on Achievement test of Mathematics in PBLP-group and CP-group of Primary School boys” was rejected. It means the boys of PBLP-group should show more effective than those the boys of CP-group.

#### **Effectiveness of PBL Programme on Achievement of Mathematical Application Skill in Primary School girls**

The results of Mean, SD and t-value of after Problem Based Learning Programme in PBLP-group and CP-group of Primary school students’ girls on Achievement of Mathematical Application Skill are presented in Table-2.

**Table-2**  
**Mean, SD and t-Value after Problem Based Learning Programme in PBLP-Group and CP-Group girls on Achievement Test of Mathematics**

<i>Students</i>	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>df</b>	<b>t-value</b>	<b>p</b>
Girls	ABLP	20	59.98	8.98	38	25.10	p<0.01
	CP	20	22.31	6.68			

The Table-2 presents a significant difference between ABLP-group and CP-group girls. The ABLP-group girls were found having significantly better Problem Based Learning Programme as compared to their CP-group girls ( $t=25.10$ ,  $df=38$ ,  $p < 0.01$ ). Thus the null hypothesis  $H_{02}$  “There was no significant difference between the average scores on Achievement test of Mathematics in ABLP-group and CP-group of Primary School girls” was rejected. It means the girls of ABLP-group should show more effective than those the girls of CP-group.

#### **Conclusions**

Conclusions were as under:

1. The boys of ABLP-group is more effective than CP-group after Problem Based Learning Programme with reference to Achievement of Mathematical Application Skill.
2. The girls of ABLP-group is more effective than CP-group after Problem Based Learning Programme with reference to Achievement of Mathematical Application Skill.

#### **Research implication**

Research implications were as under:

1. The result of the study has proved that the Problem Based Learning Programme on ABLP-group is more effective than the CP-group. So the teacher should use Problem Based Learning Programme in classroom.
2. Appropriate training for teachers to use Problem Based Learning Programme to teach Mathematics would enhance the active learning.
3. Keeping the result of study in mind the NCTE, CTE, GCERT and DIET should take up the work to teacher by Achievement of Mathematical Application Skill.
4. Preparation of a teacher's guide accompanying the Mathematics textbooks containing the executive steps and activities of the instructional model would help them to adopt such model.
5. Teachers of middle schools and high schools can be given orientation as how to teach Achievement of Mathematical Application Skill.

### References

- Ali, R., Hukamdad, Akhter, A., & Khan, A., 2010. Effect of using problem solving method in teaching mathematics on the Achievement of Mathematical Application Skill students. *Asian Social Science*, 6, 67-72. Retrieved from: [www.ccsenet.org/ass](http://www.ccsenet.org/ass)
- Becerra-Labra, C., Gras-Martí, A., & Torregrosa, M. J., 2012, Effects of a Problem-based Structure of Physics Contents on Conceptual Learning and the Ability to Solve Problems. *International Journal of Science Education*, 34(8), 1235-1253. doi:10.1080/09500693.2011.619210
- Boud, D. & Feletti, G. (Ed.), 2001, *The challenge of problem-based learning* (2nd ed.). London: Kogan Page.
- Boyce, L. N., VanTassel-Baska, J., Burruss, J. D., Sher, B. T. & Johnson, D. T., 1997, A problem-based curriculum: Parallel learning opportunities for students and teachers. *Journal for the Education of the Gifted*, 20 (4), 363-379.
- Clarke, D., Breed, M., & Fraser, S., 2004, The consequences of a problem-based mathematics curriculum. *The Mathematics Educator*, 14, 7-16.
- Diggs, L.L., 1997, Students' attitude toward and achievement in science in a problem based learning educational experience. PhD dissertation, University of Missouri-Columbia, Columbia, MO.
- Dochy, F., Segers, M., Van den Bossche, P., & Gijbels, D., 2003, Effects of problem-based learning: a meta-analysis. *Learning and Instruction*, 13, 533-568. doi: 10.1016/S0959-4752(02)00025-7
- Duch, B. J., Groh, S. E., & Allen, D. E. (Eds.). 2001, *The power of problem-based learning*. Sterling, VA: Stylus Publications.
- Duck, K. D., 2014, *The Effects of Problem-Based Learning on Interest in Mathematics for Elementary Students Across Time* (Unpublished graduate thesis). Western Kentucky University, Bowling Green, KY.
- Erickson, D. K.. 1999, A problem-based approach to mathematics instruction. *The Mathematics Teacher*, 92, 516-521.

- Gallagher, S. A., & Stepien, W. J., 1996, Content acquisition in problem-based learning, depth versus breadth in American studies. *Journal of Education and Gifted*, 19(3), 257–275.
- Gavin, M. K., Casa, T. M., Adelson, J. L., Carroll, S. R., & Sheffield, L. J., 2009, The impact of advanced curriculum on the achievement of mathematically promising elementary students. *Gifted Child Quarterly*, 53, 188-202. doi:10.1177/0016986209334964
- Henningsen, M., & Stein, M. K., (1997, Mathematical tasks and student cognition: Classroom-based factors that support and inhibit high-level mathematical thinking and reasoning. *Journal for Research in Mathematics Education*, 28, 524-549.
- Hmelo, C. E. & Ferrari, M., 1997, The problem-based learning tutorial: Cultivating higher order thinking skills. *Journal for the Education of the Gifted*, 20 (4), 401-422.
- Hmelo-Silver, E., 2004, Problem-Based Learning, What and How Do Students Learn? *Educational Psychology Review*, 6(3).
- Inman, T. F., 2011, *The Effects of Problem-Based Learning in Math and Science on High Potential Elementary School Students* (Unpublished doctoral dissertation). Western Kentucky University, Bowling Green, KY.
- Oon Seng, T., Little, P., Hee, S. Y., & Conway, J., 2000, *Problem-based learning: Educational innovation across disciplines*. Hong Kong: Temasek Centre for Problem-Based Learning.
- Roh. K. H., 2003, Problem-based learning in mathematics. Eric Digest 482725. ERIC Clearing House for Science, Mathematics, and Environmental Education, 1-7. Retrieved from: [www.ericdigest.org/2004-3/math.html](http://www.ericdigest.org/2004-3/math.html)
- Rotigel, J. V., & Fello S., 2004, Mathematically gifted students: How can we meet their needs? *Gifted Child Today*, 27, 46-51, 65. doi: 10.4219/gct-2004-150.
- Savin-Baden, M., 2000, *Problem-based learning in higher education: Untold stories*. Buckingham: Open University Press.
- Schmidt, H. G., Loyens, S. M., van Gog, T., & Paas, F., 2007, Problem-based learning is compatible with human cognitive architecture: Commentary on Kirschner, Sweller, and Clark (2006). *Educational Psychologist*, 42, 91-97.
- Schmidt, H. G., Rotgans, J. I., & Yew, E. H. J., 2011, The process of problem-based learning: What works and why. *Medical Education*, 45, 792-806. doi: 10.1111/j.1365-2923.2011.04035.x
- Selcuk, G. S., 2010, The effects of problem-based learning on pre-service teachers' achievement, approaches and attitudes towards learning physics. *International Journal of the Physical Sciences*, 5(6), 711-723.
- Selcuk, G. S., Çaliskan, S., & Şahin, M., 2013, A Comparison of Achievement in Problem-Based, Strategic and Traditional Learning Classes in Physics, *International Journal on New Trends in Education and Their Implications*, 4(1).
- Stepien, W. J., & Pyke, S. L., 1997, Designing problem-based learning units. *Journal for the Education of the Gifted*, 20 (4), 380-400.

- Strobel, J., & van Barneveld, A., 2009, When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-Based Learning*, 3, 44-58. doi: 10.7771/1541-5015.1046
- Sungur, S., 2006, Effects of Problem-Based Learning and Traditional Instruction on Self-Regulated Learning, *Journal of educational*, 99(5).
- VanTassel-Baska, J., 2013, Curriculum issues: Curriculum, instruction, and assessment for the gifted: A problem-based learning scenario. *Gifted Child Today*, 36, 71-75. doi: 10.1177/1076217512465289

**A Study of Personality of Graduate Students in Relation to Their Socio-Economic Status and Socio-Cultural Background of B.Ed. Students of South Gujarat**

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**Abstract**

The Present study intends of know the impact of Socio- Economic Status (SES) and Social Cultural Background (SEB )on the personality of Graduate Students. The sample of study consisted of 180 graduate Students, out of which 130 were boys and 50 girls, This sample was selected from various B.Ed. College of Veer Narmad South Gujarat University Surat. “Mysore personality Inventory” developed by Krishnan was administered to the sample, Along with the responses to this inventory, some other information’s relating to their religion – caste and early home background, and parental education, occupation and income were also collected from the respondents to determine their SES and SEB. Two groups were formed among the students with regard to their SES and SCB. Further, the obtained personality scores were subjected to ‘t’ test Results revealed that the Graduate Students of upper middle class and those who come from upper middle stratum of SCB have significantly higher adjustment with the personality aspects like family emotion, reality and criminality. As far as leadership is concerned, the students coming from upper middle stratum of SCB have higher adjustment than their counterparts while, the students of middle class and those who come from middle stratum of SCB have significantly higher social adjustment than their counterparts. The two groups of SES and SCB did not differ significantly in adjustment with mood.

**Key Words:** Personality, Socio Economic Status, Cultural Background

**INTRODUCTION :**

Personality of an individual has been understood by psychologists as a product of several factors. At the same time it has also been observed that multiple factors contribute for the determination, development and modification of personality. Among those several factors. Socio-economic status and social- cultural background do play their unique role in determining and developing one’s personality.

A brief review in this regard revealed some facts as follows. Peter(1993) in his study examined the influence of home background factors (SES and the amount of problem behavior of the child at home) on attention problems of nine year old children.

Results revealed no effect of SEB on attention, and even SES was not related to arithmetic achievement but exerted a small direct effect on reading comprehension. Gauvain (1992) in his article reported that socio- cultural factors play a central role in the development and organization of spatial cognition. Langfeldt (1994) discussed about the integration of biological psychological and cultural factors, that occurs in the development of sexual function and the sexual mold in early childhood in a study by Mansy and Abdul (1995),it is found the scholastics attitudes are significantly related to socio-cultural status. Singh and Krishna (1996)in their study reported that caste prejudice bears significant positive association with anxiety and neuroticism, while significant negative association with

extroversion. In another study, Reddy and Nagarathnamma (1993) found no significant difference between rural and urban students in their mental health. They also reported that SES of the high school students has not contributed to their mental health. Mathur (1996) reported that children of unemployed mothers and employed mothers differ on some of personality aspects and they also shared a common pattern on some other aspects of personality.

However, from an observation of the above reviewed studies it is felt that, the studies relating to personality of graduate students in relation to their social- economic-status and socio- cultural background are almost nil. Thus, the present study is undertaken with the main intention of knowing the impact of SES and SCB on the personality of graduate students.

### **Objective of the Study:**

1. To know the personality of graduate students in relation to their Socio- Economic status.
2. To know the personality of graduate students in relation to their Socio-cultural back ground.
3. To know the personality of middle graduate students in relation to their Socio- Economic status.
4. To know the personality of Upper middle graduate students in relation to their Socio- Economic status.
5. To know the personality of middle graduate students in relation to their Socio-cultural back ground.
6. To know the personality of Upper middle graduate students in relation to their Socio-cultural back ground.
7. To compare the personality of graduate students in relation to their Socio- Economic status and Socio- cultural back ground.
8. To compare the personality of middle and upper middle graduate students in relation to their Socio- Economic status.
9. To compare the personality of middle and upper middle graduate students in relation to their Socio- cultural back ground.

### **Hypotheses of the Study:**

1. There will be no significant difference between the mean Scores of Socio- economic Status and Socio-cultural back ground of graduate students.
2. There will be no significant difference between the mean Scores of middle and upper middle graduate students in relation to their Socio- economic Status of graduate students.
3. There will be no significant difference between the mean Scores of middle and upper middle graduate students in relation to their Socio-cultural back ground of graduate students.

### **METHOD:**

**Sample:** The sample of the study consists of 180 graduate students, i.e.130 boys and 50 girls, studying in various B.Ed. students of South Gujarat.

**Measure:** Mysore Personality inventory. Which is developed by Krishnan was used to measure the Personality of the graduate students. This inventory measures the personality in terms of adjustment with various aspects like family, emotion, social, mood, reality, criminality and leadership, This scale consists of 235 in terms, in the form of statements. The respondent have to give their responses to these items in terms to “True of False” on the separate answer sheet provided to them.

**Collection of Data :**The personality Inventory was administered to all the respondents in their classes and the responses were obtained. The responses were scored with the help of key for all the seven aspects and the total score of each aspect was transformed to standard score. In this scale higher score shows lower adjustment and vice versa. In addition to this, the information relating to their religion caste and early home background as well as their parental education, occupation and income was also collected in the biodata sheet to determine their socio-economic status and socio – cultural background.

**Analysis Of Data:** The components of SES-education, occupation and income were given the weight ages by using the updated SES scale developed by Kuppuswamy (1962),The variable SCB consists of the three components of SES as well as religion caste and early home background. For the last two components of SCB the weight ages were given on anpriority basis. Thus the composite score of SES and SCB was derived by adding their respective components scores. First of all, the median was calculated for the obtained SES and SCB scores of graduate. students, This median was taken as cut off point for dividing the entire sample into two groups. Thus, the two groups of SES and SCB are identified as Middle and “Upper Middleclass “and “Middle” and “Upper Middle” stratum of SES and SCB8 respectively.

Further, to know the significance of difference between the two groups of SES and SCB with regard to their adjustment in various aspects, the “t” test was applied.

**Results and Discussion**

- o Socio- Economic –Status and Personality :

Table: 1

Showing N, Mean, S.D. and “t” value for different aspects of Personality scores of Graduate students belonging to middle and upper middle class.

Variables	Class	N	Mean	S.D.	“t”value
Family	Middle	100	49.72	8.75	8.38**
	Upper middle	80	44.16	7.98	
Emotion	Middle	100	49.93	8.32	5.92**
	Upper middle	80	47.38	9.98	
Social	Middle	100	46.58	8.22	-4.28**
	Upper middle	80	47.92	10.87	
Mood	Middle	100	47.28	7.98	0.39**
	Upper middle	80	47.38	9.92	
Reality	Middle	100	50.78	9.22	5.77**
	Upper middle	80	46.67	9.68	
Criminality	Middle	100	50.96	8.49	8.82**
	Upper middle	80	45.87	9.52	
Leadership	Middle	100	50.58	8.68	1.82**
	Upper middle	80	48.84	10.97	

\*\*\*P<0.001, very highly significant

- An observation of Table 1 reveals that the two groups of graduate. students i.e. students belonging to middle class and upper middle class differ significantly from each other in their family (t = 8.38; P<0.001), emotion (t =5.92; P <0.001),social (t = -4.28; P<0.001), reality (t = 5.76; P <0.001) and criminality ( t = 8.22; P<0.001 ) aspects of personality. In all these aspects of personality the difference between groups is significantly very high (P

<0.001)While the two groups do not differ significantly in their mood ( $t=0.39;p>0.05$ )and leadership( $t=1.80; P>0.05$ )

- It is obvious from the table that the middle class graduate. students have shown significantly lower adjustment with regard to the personality aspects like family, emotion reality and criminality, while they have shown significantly higher adjustment with social aspect when compared to the students belonging to upper middle class.
- The observed significant hither adjustment (with various aspects of personality) of graduate. students belonging to upper middle class may be attributed to the fact of greater understanding of parents of upper middle class group. These parents also provide healthy atmosphere for their children to develop healthy personality.

○ Social – cultural Background and Personality :

Table – 2

Showing N, Mean, S.D. and “t” value for the scores of personality of Graduate students coming from Middle and Upper middle stratum of socio- culture background.

Variables	Class	N	Mean	S.D.	“t” value
Family	Middle	95	47.87	8.28	8.63**
	Upper middle	85	44.32	7.76	
Emotion	Middle	95	50.18	8.83	5.08**
	Upper middle	85	46.98	9.37	
Social	Middle	95	46.37	7.93	-
	Upper middle	85	47.46	11.09	
Mood	Middle	95	48.12	8.41	1.29**
	Upper middle	85	47.32	9.36	
Reality	Middle	95	50.85	8.97	7.08**
	Upper middle	85	46.24	9.14	
Criminality	Middle	95	51.69	8.37	8.92**
	Upper middle	85	46.71	9.17	
Leadership	Middle	95	50.78	8.72	2.01**
	Upper middle	85	48.88	1.12	

\* $P<0.05$ ; Significant

\*\*\* $p <0.001$ ; Very highly Significant

An observation of Table 2 reveals that the difference between two groups background is significantly very high ( $p<0.001$ ) in Some of the personality aspects like family ( $t=8.63$ ),emotion( $t=5.08$ ),reality ( $t= 7.08$ ),and criminality ( $t=8.92$ ),and it is significant ( $p<0.05$ ) with regard to social ( $t=-2.26$ ) and leadership ( $t=2.03$ ) While, the difference is not significant with regard to mood ( $t=1.29;p>0.05$ )

It can be noticed from the scores that, the students from middle strum of SCB have significantly lower adjustment with family, emotion, reality, criminality and leadership, while they have

significantly higher adjustment with social aspect when compared to the students coming from upper middle stratum of SCB.

The observed finding may be attributed to the fact of attitudes and values that prevails in the style of life of students coming from upper middle stratum of SCB. There are two common things which can be noticed in both the tables. First, the students of middle class and coming from middle stratum of SCB have shown significantly higher adjustment with social aspect. Second in both the tables there is no significant difference between the groups in their mood adjustment.

**CONCLUSION:**

From this study it can be concluded that, the Graduate students belonging to upper middle class and coming from upper middle stratum of SCB have significantly higher adjustment with regard to the personality aspects like family, emotion, reality and criminality, Even with leadership also the students coming from of upper middle stratum of SCB have higher adjustment than their counterparts, While the students of middle class and those who come from middle stratum of SCB have significantly higher social adjustment. Lastly, the two groups of SES and SCB do not differ significantly in their adjustment with mood.

However, the findings of the study imply the need for counseling especially for the middle class students and those who come middle from stratum of socio-cultural background to develop more healthy personality.

**References:**

- De Jong Peter F The Relationship between students, behavior at Home and Attention and Achievement in Elementary school. British journal of Educational Psychology,1993.
- Gauvain Mary, Socio- Cultural Influences on the Development of Spatial Thinking Psychological Abstracts, 1994.
- Langfeldt Thore Early childhood and juvenile sexuality, Development and Problems psychotically Abstracts, 1994.
- Mathur Kiran Influence of Maternal employment on children's Personality. Souvenir of VII Annual Conference of National Academy of Applied Psychology, held at Bhopal,1996

## **C.S.R: A Social work Approach**

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### **Abstract:**

Corporate social responsibility is a form of corporate self- regulation integrated into a business model. The aim of the CSR has been seen as the rendering of services of the organization towards upliftment of the people of the society. The CSR takes into consideration the wide verity of issues like environment, poverty irradiation, youth empowerment, training and development, welfare of the people and healthcare. In this article analyses the meaning of CSR, CSR in law, and some theories of CSR available in literature. Describe meaning of social work and approaches of social work in CSR.

**Key Words:** CSR, Social Work Approach

### **Introduction:**

The 21<sup>st</sup> century is characterized by unprecedented challenges and opportunities, arising from globalization, the desire for inclusive development and the imperatives of climate change. Indian business, which is today viewed globally as a responsible component of the ascendancy of India, is poised now to take on a leadership role in the challenges of our times. It is recognized the world over that integrating social, environmental and ethical responsibility into the governance of business ensures their long term success, competitiveness and sustainability. These move toward also reaffirms the view that businesses are a part and parcel of society. And have a significant and vigorous role to play in the nourishment and improvement of healthy ecosystem's, in fostering social inclusiveness and equity, and in upholding the essentials of ethical practice and good governance. This also makes business sense as companies with effective CSR, have image of socially responsible companies, achieve sustainable growth in their operations in the long run and their products and services are preferred by the customers.

As a concept CSR has been the focus of many deliberations and research. It has grown in importance both academically as well as in the business sense. It captures a spectrum of values and

criteria for measuring a company's contribution to social development. As the term CSR is used continually, many complementary and overlapping concepts, such as corporate citizenship, business ethics, stakeholder management and sustainability, have emerged. These extensive ranges of synonymously used terms indicate that multiple definitions have been devised for CSR, mostly from different perspectives and by those in facilitating roles such as the corporate sector, government agencies, academics and the public sector.

**Understanding about CSR:**

- Corporate social responsibility widely known as CSR, encompasses the role the business sector in protecting the natural environment as well as protecting basic human rights, labour standards and other related welfare activities in its sphere of influence.
- Corporate social responsibility (CSR) is defined as commitment of business to economic development with contribution to the quality of life of their employees, local community and society at large. It is gaining worldwide value as a business tool and social effort towards development.
- Corporate Social Responsibility (CSR) also has been defined as an obligation to pursue those policies, to make those decisions, or to follow those lines of action that are desirable in terms of the objectives and values of our society. (Marrewijk, Vidal and Kazaks (2008).

**C.S.R in India**

India has a long tradition of paternalistic philanthropy. The process, though acclaimed recently, has been followed since ancient times albeit informally. The concept of helping the poor and disadvantaged was cited in several ancient literatures. In the pre-industrialized period philanthropy, religion and charity were the key drivers of CSR. The industrial families of the 19<sup>th</sup> century had a strong inclination toward charity and others social consideration. However the donation, either financial or otherwise, were sporadic activities of charity or philanthropy that were taken out of personal savings, which neither belonged to the shareholders nor did it constitute an integral part of business. During this period, the industrial families also established temples, schools, higher education's institutions and other infrastructure of public use.

The term CSR itself came into common use in the early 1970s. The last decade of the twentieth century witness a shift in focus charity and traditional philanthropy toward more direct engagement of business in mainstream development and concern for disadvantaged groups in the society. In India, there is a growing realization that business cannot succeed in isolation and social progress is necessary for sustainable growth. An ideal CSR practice has both ethical and philosophical dimensions, particularly in India where there came into existence a wide gap between sections of people in terms of income and standards as well as socio-economic status (Bajpai, 2001).

India companies are now expected to discharge their stakeholder responsibility and societal obligations, along with their shareholders-wealth maximization goal. Nearly all leading corporates in India are involved in corporate social responsibility (CSR) programmes in areas like education, health, livelihood creation, skill development, and empowerment of weaker sections of the society. Notable efforts have come from the Tata Groups, Infosys, Bharti enterprises, ITC Welcome groups, India Oil Corporation among others.

The 2010 list of Forbes Asia's 48 Heroes of Philanthropy' contains four Indians. The 2009 list also featured four Indians. India has been named among the top ten Asian countries paying increasing importance towards corporate social responsibility (CSR) disclosure norms. India was ranked fourth in the list, according to social enterprise CSR Asia's Asian Sustainability Ranking (ASR), released in October 2009.

**C.S.R and Social Work Approach:**

One of the approaches that than be adopted by the companies is by mapping stress levels generated by them as a direct result of their operations. Indicatively the stress may occur on the ecology of its areas of manufacturing and operations. Some of the companies may have strained the social fabric of the society as well. Three areas of concern may be cited for this analysis:

- Environmental.
- Change in demographic
- Cultural habits

**Augmentative Approach:**

There are a lot of issue of important that require attention and may not be directly related to the enterprise's operations. If an enterprise chooses to invest on social issues unrelated to the circle of influence of the enterprise it may be termed as an augmentative approach to CSR.

The CSR committee formed for this purpose will have to deliberate the issue in an exhaustive manner and formulate the CSR policy. The CSR policy adopted must clearly bring out the following:

- The CSR vision and mission of the company.
- The Goals that every project being adopted is stated to achieve.
- Cost benefit analysis should be done for choice of project.
- The measures of success for each of the project are defined.
- The integration roadmap of the CSR initiative with the company operations.
- The CSR communication strategy.

**Pooling Approach:**

The Pooling approach towards CSR can be adopted where individual firms are of small size and their CSR outlay is not enough to drive the chosen imitative. The firm may in that case either adopt a scale of the project which it can fund and sustain or may create a single pool of CSR funds companies in the same cluster or industry. The companies can get benefit like mention below:

- Focused approach can be adopted for CSR initiative;
- Skilled manpower to undertake CSR imitative;
- As economies of scale set in more funds will be available and therefore large scale project could be undertaken;
- Sustained efforts can be channelized as the SPV would be independent of the stakeholders;
- Companies would be exonerated of the day to day functioning of the SPV;
- Structured evaluation and monitoring techniques like periodic utilization audits and impact assessments can be conducted;
- The credit for the good work done by the SPV will be shared by all the investing companies.

**Philanthropic Approach:**

The oldest and the most pervasive method of CSR are done by providing generous donation of money and materials to organizations working for a cause of socio-economic-environmental causes and be termed as the philanthropic Approach. The Income Tax Act, 1961 provides deduction of up to 100%U/s 80G to such donations. Under the current income tax act, all donations to the Prime Minister's Relief Fund shall qualify as a valid CSR activity. One of the major advantages of this approach will be that the total amount contributed will be eligible for deduction from the total income for tax purpose in the year of contribution.

The philanthropic approach has certain advantages. A brief discussion is appended below;

- The enterprise will find this easy to implement, as the CSR committee has to just shop for programs from NGOs and government organizations for funding.
- The organization does not need to develop in-house skills for execution of chosen projects and the same will be done by subject matter experts.
- The organizations can get a tax advantage from the CSR activity. However under other approaches the tax advantage is still disputable.
- The organization can change the programs it supports easily as it does not have ownership over the programs and empanel new programs from the available from the market.

**Trident Approach:**

This is essentially an approach where an enterprise chooses a very Broad theme of CSR and then chooses projects which are Restorative, Augmentative and Philanthropic in nature depending on the local requirements.

Companies can through the Trident Approach provide very broad guidelines on CSR activities to be conducted. The managers at all levels will choice and formulate programs with their teams and implement it.

**Theories of CSR:**

Since there is a great heterogeneity of theories and approaches of CSR, discussion here is based on a comprehensive analysis by Secchi (2007) and it is compared with an analysis by Garriga and Mele (2007). Secchi has come up with a group of theories based on a criterion what role the theories confer to the corporation and society. The theories are as follows:

- 1) The utilitarian theory.
- 2) The managerial theory.
- 3) The relational theory.( Seen Table-1)

On the other hand , Garriga and Mele's (2004) analysis maps CSR into four types of territories. They are:

- 1) Instrumental theories.
- 2) Political theories.
- 3) Integrative theories.
- 4) Ethical theories. (See Table-2)

Table – 2 Describes the theories and the relevant approaches. There is no doubt that some similarities do exist in both conceptualization of CSR and the discussion will be based on emphases and approaches.

**: Table 1 :**

**Utilitarian, managerial and relational theories of CSR**

<b>Utilitarian Theory</b>	<b>Managerial Theory</b>	<b>Relational Theory</b>
Theories on social costs Functionalism	Corporate social performance Social accountability, auditing and reporting (SAAR) Social responsibility for multinational	Business and society Stakeholder approach Corporate global citizenship Social contract theory

Source: Secchi (2007:350)

**: Table-2:**

**Corporate social responsibilities theories and approaches**

<b>Types of theory</b>	<b>Approaches</b>	<b>Shorts description</b>
Instrumental theories (Focusing on achieving economic objectives through social activities )	Maximization of shareholders value  Strategies for competitive advantage  Cause – related marketing	Long term value of maximization  Social investment in a competitive context  Firm’s view on natural resources and its dynamic capabilities  Altruistic activities socially recognized as marketing tool
Political theories (focusing on a responsible use of business power in the political arena)	Corporate constitutionalism  Integrative social contract  Corporate citizenship	Social responsibilities of businesses arise from the social power the firms have Assumes that a social contract between business and society exists The firm is understood as being like a citizen with certain involvement in the community
Integrative theories	Management issues .  Public responsibility  Stakeholder management Corporate social performance	Corporate response to social and political issues Law and the existing public policy process are taken as a reference for social performance Balances the interests of firms’ stakeholders Searches for social

		legitimacy and processes to give appropriate responses to social issues
Ethical theories (Focusing on the achieve a good society)	Stakeholders normative theory Universal rights Sustainable development The common good	Considers fiduciary duties towards stakeholders of the firm. This requires some moral theories Based on human rights, labor rights and respect for environment Aimed at achieving present and future generations Oriented towards the common good of society

**Source:** Garriga and Mele(2004:63-64).

**Conclusion:**

The concept of corporate social responsibility has gained prominence from all avenues.CSR can play a valuable role in ensuring that the invisible hand acts, as intended, to produce the social good. In addition, it seems clear that a CSR program can be a profitable element of corporate strategy, Contributing to risk management and to the maintenance of relationship that are important to long-term profitability.

**Reference:**

1. Garriga,E. and Mele, D.(2004) corporate social responsibility theories: Mapping and territory .Journal of Business Ethics.
2. Report of Global CR Summit 2013.
3. Secchi, D. (2005).The Italian experience in social reporting: An empirical analysis. Corporate Social Responsibility and Environmental Management.
4. Seechi, D. (2007). Utilitarian, managerial and relational theories of corporate social responsibility. International Journal of Management Reviews.
5. [www.en.wikipedia.org/wiki/corporate\\_social\\_responsibility](http://www.en.wikipedia.org/wiki/corporate_social_responsibility).
6. [www.indianet.nl/csrindia\\_cremfinal.pdf](http://www.indianet.nl/csrindia_cremfinal.pdf)
7. [www.kpmg.com/in](http://www.kpmg.com/in)
8. [www.Linkedin](http://www.Linkedin).(Corporate Social Responsibility: Different approaches to Common Goal.By: Tushar Tivari)

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Takeuchi, H., Osono, E., & Shimizu, N. (2008). The contradictions that drive Toyota's success. *Harvard Business Review*, 86(6), 96-104. Retrieved from <http://www.hbr.org>

### **Book**

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Sander, M. R., Downer, J. L., Quist, A. L., Platmann, L., Lucas, C. L., Cline, J. K., & Campbell, D. R. (2004). *Doing research in the university library*. Chicago, IL: Corbin Press.

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