# Benchmarking Quality and Accrediting Institutions of Teacher Education: The Revised NAAC Framework

National Webinar Sponsored by the National Assessment and Accreditation Council (NAAC)

Editors:
Dr. Sheela Philip
Dr. Giselle D'souza

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National Webinar

Sponsored by

National Assessment and Accreditation Council (NAAC)

Hosted by

St. Teresa's Institute of Education,
Santa Cruz (West), Mumbai 400054

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A.P.H. PUBLISHING CORPORATION

4435–36/7, ANSARI ROAD, DARYA GANJ,

NEW DELHI-110002

*Published by*
**S.B. Nangia**
**A.P.H. Publishing Corporation**
4435–36/7, Ansari Road, Darya Ganj,
New Delhi-110002
Phone: 011–23274050
e-mail: aphbooks@gmail.com

2020



*Typeset by*
**Ideal Publishing Solutions**
C-90, J.D. Cambridge School,
West Vinod Nagar, Delhi-110092

*Printed at*
**BALAJI OFFSET**
Navin Shahdara, Delhi-110032

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# FOREWORD

**Nelson Mandela has precisely stated, "Quality is never an accident; it is always the result of intelligent effort."**

In today's educational scenario, **Benchmarking Quality and Accrediting** are the most remarkable words that are used. As— Al Paison rightly says, "If you're not benchmarking your performance against your competitors, you're just playing with yourself".

All over the world, Higher Education Institutions (HEIs) function in a vibrant environment. There are changes in every area, be it globalization, privatization, industrialization, technological advancement or education. Hence there is a need to rise up to the expectations of the emerging society.

India's Higher Educational system is the third largest in the world, next to the United States and China. During this time of the pandemic, our education system is in need of drastic transformation. However, India has one of the main leading and varied schooling systems in the world. But increased autonomy and introduction of programs in new and evolving areas have enhanced access to higher education. At the same time, it has also led to widespread concern on the quality and relevance of the higher education. For India today, quality in higher education is the greatest priority.

In this innovative time of education new prospects are evolving in education. According to the New Education Policy, students are now being exposed to a whole new world of learning. There needs to be a balance in our education system and so excellence and assessment come in the limelight. It is reassuring that the National Assessment and Accreditation Council (NAAC) has brought in a novel way into

its procedure of appraisal and recognition. This has been an attempt of the NAAC's trepidation for guaranteeing that its procedures are in synchronization with local, regional and global alterations in the higher education scenario.

It would be noteworthy to specify:

The **vision** of NAAC: To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.

The **mission** statement of the NAAC aims at translating it's vision into action plans and define their engagement and endeavor.

These differences and the following change in principles have been taken into consideration by NAAC while framing the core values. Thus, in order to verify external and internal validity and reliability, the procedures of NAAC are grounded within a value structure which is appropriate and apt to the National context.

Educational institutions should consider this pandemic as an opportunity to improve our educational infrastructure wherein we could provide a seamless learning experience to the students in these dire times. Let us walk together and let's make education an enjoyable and enriching journey with **God** as our **Guru**.

***Dr. Sr. Tanuja Waghmare,***
Principal,
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Santacruz West, Mumbai.

# ACKNOWLEDGEMENT

St. Teresa's Institute of Education would like to place on record its gratitude for the cooperation and inputs it received from institutions and learned members of the faculty during the course of this webinar on "Benchmarking Quality and Accrediting Institutions of Teacher Education: The Revised NAAC Framework".

We are extremely indebted to the **National Assessment and Accreditation Council (NAAC)** for its financial sponsorship and the human-resource pool in the form of experts. Their deliberations lent credibility to the webinar.

We are thankful to **Professor Dr. Shefali Pandya**, Head, Department of Education, University of Mumbai, for inaugurating the proceedings of the webinar and for delivering the Keynote Address.

We would like to thank our resource persons

- **Associate Professor Dr Sybil Thomas**, Department of Education, University of Mumbai
- **Associate Professor Dr. Agnes Ronald D'Costa**, Pushpanjali College of Education, Vasai
- **Dr. Sujata Shanbhag**, Adviser, National Assessment and Accreditation Council (Education)
- **Professor Dr. Peeyush Pahade**, Head, Department of Zoology, Haribhai V. Desai College of Commerce, Arts and Science, University of Pune
- **Dr. Dharmaraj K. Veer**, Director, Knowledge Resource Centre, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad

- **Assistant Professor Shrihari Pingle**, Department of Zoology, S.N. Arts, D.J.M. Commerce, and B.N.S. Science College, Sangamner, University of Pune

for providing us with a panoramic overview of raising standards and the quality bar in practice and documentation.

Our sincere appreciation to our moderator, **Dr. Priya Narayanan**, Assistant Adviser, National Assessment and Accreditation Council (Education), and the panellists

- **Dr. T.K.S. Lakshmi**, Former Professor and Dean, Faculty of Education, Banasthali Vidyapeeth, Rajasthan
- **Dr. Sujata Shanbhag**, Adviser, National Assessment and Accreditation Council (Education)

for initiating and sustaining a dynamic interaction during the Panel Discussion.

We are grateful to **Mr. Ganesh Kohli**, Founder, International Career & College Counselling (IC3) Movement, for a Valedictory Address that was a perfect wrap-up on the ethos of a teacher in a digital world.

We place our gratitude on record to Principal, Dr. Asmita Huddar, for the reflections of a Special Educator, via. an invited article.

To all the **delegates** who expressed their views through the papers they presented.. . a big Thank You. And to the delegates who participated.. . your presence was invaluable!

A sincere Thank You to the **Principals and Heads** of institutions; we are grateful to you for encouraging your faculty to be a part of our endeavour.

We are grateful to our **Peer-Review Committee**, Principal, Dr. Radhika Vakharia, Dr. Shaharas P.V., and Dr. Sujata Rajpurkar, for sustaining and benchmarking the standards of the academic papers being published.

# RATIONALE OF THE WEBINAR

The National Assessment and Accreditation Council (NAAC) is an autonomous body of the University Grants Commission (UGC), established with a view to assess and accredit institutions of higher education across the country. The Council creates common measures for comparing institutional effectiveness with a view to raise and sustain quality.

The revised manual released by NAAC for teacher-education institutions in November 2019 is not just an evaluation grid, but a roadmap to excellence that is modelled on the maxim 'whole to part'. It lays down guidelines for self-assessment, accountability and innovation. It promotes collaboration with stakeholders of education.

The current framework is ICT-enabled and it seeks digital documentation of events and activities along a timeline. This permits authentic documentation and eliminates misappropriation in the Self Study Report (SSR) of any institution. The seven Criteria form the pivotal axis of scrutiny and evaluation. These areas are embedded with key indicators that are suitably modified for teacher education. They use matrices for assessment that are quantitative and qualitative. The data can be verified and validated by a standard operating procedure that uses averages.

This step aims at seamlessly merging the spectrum of plurality that arises out of India's cultural, linguistic, social, economic and geographic vibrance. Thus the framework meets with international standards of assessment as it warrants and promotes a uniform and just platform for comparing Institutions across the country.

The highlight of this framework template is that it is customised for teacher education, giving it a professional thrust. It caters to the three

streams of Teacher Education, namely, General Education, Physical Education, and Special Education.

Most long-standing institutions of teacher education would have completed three cycles of assessment and accreditation by NAAC. With the introduction by NAAC of the revised framework, stakeholders need a comprehensive orientation on the effective use of the NAAC Institutional Accreditation Manual for Self-Study Report for Teacher Education Institutions.

This seminar is a pioneering effort to empower teacher education institutions with a comprehensive knowhow of creating an informative and well-documented appraisal report.

***Dr Sheela Philip***
Convenor

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### CONVENOR

Assistant Prof. Dr. Sheela Philip

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Assistant Prof. Dr. Reshma Rodrigues
Assistant Prof. Dr. Shakuntala Nighot (Librarian)

### OBJECTIVES

1. To help ascertain the extent to which an institution complies with the seven NAAC criteria
2. To provide insights on efficiently managing assessments and analysing outcomes
3. To help augment resources available to raise and sustain quality
4. To train in documenting meaningful criterion-wise reports
5. To provide academicians a NAAC forum to publish original articles on quality enhancement and sustenance

### SUB THEMES

1. Augmenting resources in curriculum design
2. Learning Management Systems (LMS); e-learning resources; outcome-based education
3. Action-oriented, reflective, community practices
4. Learning ecosystems; smart spaces
5. 'The Student-Nurture Model' of an institution
6. Outcomes of strategic planning, implementation and control
7. Altruism and distinctive practices

# PROGRAMME

(Criteria 1-7 are as per the NAAC Institutional Accreditation Manual for Self-Study Report for Teacher Education Institutions)

**Day 1: August 28, 2020**

| | |
|---|---|
| 09.00 a.m. - 09.15 a.m. | **Inauguration and Book Release** |
| 09.15 a.m. - 09.45 a.m. | **Keynote Address: Quality Assessment in Higher Education**<br>Professor Dr. Shefali Pandya, Head, Department of Education, University of Mumbai |
| 09.45 a.m. - 10.45 a.m. | **Criterion I: Curricular Aspects**<br>Associate Professor Dr. Sybil Thomas, Department of Education, University of Mumbai |
| 10.45 a.m. - 11.45 a.m. | **Criterion 2: Teaching-Learning and Evaluation**<br>Associate Professor Dr. Agnes Ronald D'Costa, Pushpanjali College of Education, Vasai |
| 11.45 a.m. - 12.30 p.m. | **Criterion 3: Research and Outreach Activities**<br>Dr. Sujata Shanbhag, Adviser,<br>National Assessment and Accreditation Council (Education) |
| 03.00 p.m. - 03.45 p.m. | **Criterion 5: Student Support and Progression**<br>Professor Dr. Peeyush Pahade, Head, Department of Zoology, Haribhai V. Desai College of Commerce, Arts and Science, University of Pune |
| 03.45 p.m. - 04.30 p.m. | **Criterion 6: Governance, Leadership and Management**<br>Professor Dr. Peeyush Pahade, Head, Department of Zoology, Haribhai V. Desai College of Commerce, Arts and Science, University of Pune |

**Day 2: August 29, 2020**

| | |
|---|---|
| 09.00 a.m. - 09.45 a.m. | **Criterion 4: Infrastructure and Learning Resources**<br>Dr. Dharmaraj K. Veer, Director, Knowledge Resource Centre, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad |
| 09.45 a.m. - 10.30 a.m. | **Criterion 7: Institutional Values and Best Practices**<br>Assistant Professor Shrihari Pingle, Department of Zoology, S.N. Arts, D.J.M. Commerce, and B.N.S. Science College, Sangamner, University of Pune |
| 10.30 a.m. - 11.30 a.m. | **Panel Discussion:** |
| Moderator: | Dr. Priya Narayanan, Assistant Adviser,<br>National Assessment and Accreditation Council (Education) |
| Panellists: | Dr. T.K.S. Lakshmi, Former Professor and Dean, Faculty of Education,<br>Banasthali Vidyapeeth, Rajasthan<br>Dr. Sujata Shanbhag, Adviser,<br>National Assessment and Accreditation Council (Education) |
| | **Note:** Delegates are requested to email their queries to stiesem@gmail.com. They will be addressed by the experts during the Panel Discussion |
| 11.30 a.m. - 12.00 p.m. | **Valedictory:** Ganesh Kohli, Founder,<br>International Career & College Counselling (IC3) Movement |

# 1

# Let us Rethink Diversity, Disability and Education

*Prof. Asmita Huddar**

## TUNING THE MINDSET!

Once upon a time, there were two football coaches - coach D and coach H. It was their passion and mission to give opportunity to young students to like football and to develop skills required to play football. As the new school year began, both the coaches started building their teams.

They were expected to work on these teams throughout the year. Team of coach H consisted of 20 boys who were earlier year's B + graders in sports and all had latest football gears. All knew Hindi and loved watching football games on TV. Team of coach D consisted of 15 boys and 5 girls, some scored A grade in sports earlier year and some grade B +, in fact 4 even had grade C. Some had good football gears and some did not. Some passionately liked football and watched games on TV regularly but others liked other games – some were rather indoor individuals. Some were good at Hindi and others just managed it somehow.

Both the coaches were equally experienced and dedicated. They did their best to achieve their goals.

Which team do you think was successful at the end of the year? Team D or team H? Why do you think so? (I request the readers to

*Principal, Ccym"S Hashu Advani College of Special Education, Mumbai

really take a pause at this point and frame your answers or may be you could grab a pad to write these down.)

Lets us decode the symbolic story and get to the essence of at least 5 close linked concepts diversity versus homogeneity, success, learning, educational goals and inclusion.

Did you think team H will be successful? Many readers may think team H will be more successful since the team appears to be homogenous – they may say - all students are at the 'same level of learning'.

But let us challenge this thinking. Do you think that we will find some unidentified misconcepts within ourselves? May be we will.

Reread the underlined question above. What did you take the meaning of 'success' to be? Did you imagine that there would be a football competition or a match at the end of the year? May be between team H and team D? And did you read (interpret) the question as 'who won the match?' in place of 'who was successful?' Please note that the story given above DOES NOT mention any football match or competition. Neither was it planned and nor was it implemented as per the text given above. Did you still imagine that a match was held? Many of us do that. Why did that happen? We unconsciously (and of course, incorrectly) link education with examination and competition. But education is linked with **learning** and not with **proving to have learnt.** Reread the second sentence of the story. What is the mission (objective) of both the coaches? It is not about winning any match but about 'creating liking and skills'. If that is so then why should we think that team H or team D will win any match? Many of us incorrectly imagine the match since we link success with exam scores. A major misconception indeed!

Now that we take success to mean **learning and liking to learn**, which team do you think would be more successful? We have reasons to believe that football skills and interest in the game would be cultivated more if the players get to practice with students with DIVERESE (here, team D) background rather than the HOMOGENIOUS (here, team H) background. Moreover, who will learn many more skills beyond football? It will be team D. Diversity means diverse backgrounds and diverse experiences. These ensure more learning opportunities than homogeneous experiences.

And yes, let us address the basic question - which team was successful? Only one team has to be successful and the other has to

be unsuccessful, is it so? NO. If you thought so then once again we need to delink competition and learning. Both the teams were successful in learning – and that is what matters. But I certainly feel that thanks to the diverse opportunities, team D learnt a lot more and enjoyed a lot more than the team H. Do you? If yes, then you believe in inclusion! Meaningful learning in diverse environment is inclusion.

## CONCLUSIONS

1. Examination / competitions are one of the many parameters to measure the success of education. It is widely used and deep routed in education system but we must acknowledge that it is an inadequate measure of learning.
2. Examination is important but learning is essential.
3. Learning is facilitated better in diverse groups rather than the homogenous groups.

   Homogenous groups are more 'exam ready' and diverse groups are more 'learning ready'.
4. To make the groups 'learning ready', we need to make them (rather keep them) diverse.
5. When the diversifying factors are well respected in a group, the group becomes inclusive.

Simplistically put, **inclusive education is that education which enrolls children with diverse background and ensures age appropriate learning of ALL under one common roof by addressing their differential needs through accommodations and adaptations.** The detailed definition and meaning of inclusive education may be found in other modules but a few myths about inclusive education certainly deserve a place here before discussing the principles per se.
Myths about inclusive education

1. It is suitable to ALL children and hence special schools need to be closed down immediately and completely. (No, even after best implementation of inclusive education
   we will continue to need special schools for a few students.)
2. Inclusive education is all about disabilities and education of children with disabilities.
   (No, it has more to do with diversity than the disability itself.)

3. Children with disabilities are GIVEN opportunity to grow with children without disabilities. (No, ALL children GET opportunity to learn with all children in inclusive education.)
4. Inclusive education would have all sorts of children and hence the program cannot be run systematically and structurally with quality objectives. (No, inclusive education needs structured programing wherein quality objectives are not compromised.)

And where is disability in this larger debate of inclusion? Did we miss talking about it so far? No, if we believe that disability is part of diversity then we were already talking about it. Yes, disability IS one of the diversifying factors in terms of development and functioning. Fortunately, for Indians, diversity is not a theoretical notion, it is a way of life. Diversity of faith, community, language, geo-cultural factors is well acknowledged and comparatively well handles. However, unfortunately diversities of abilities are not understood as diversity. These are labeled as disabilities. That is where journey towards inclusion goes in incorrect direction.

It is time that we teachers understand that if quality education is in place then there is no need of a separate compartment called 'special education'. Quality education by definition refers to that education which is planned and delivered in accessible ways to EACH of the students. Curriculum, TLM, evaluation system etc all would fall in place if we aim at touching ALL children with equitable leaning opportunities. Today since most of our systems are not addressing the needs of ALL and hence the need is felt for addressing the needs of some sections separately. At teacher education level too, if EACH teacher is equipped to deal with EACH students, separate subsystems would get irrelevant and redundant. We, special educators are waiting to get redundant but for that general educators have to run miles… and they would need special educators to be by their sides in the journey. With global and national push for inclusion and with legislations so pro diversity we were never so close to effective inclusive schools. Let us not miss the opportunity be the change we want. Let it be MY responsibility to act upon and not merely know inclusive education. The purpose of Acts and policies will have been served only if teachers get into action mode. Not an impossible thing to achieve for the teachers who are known to be in action mode anyways. All the best to all of us for the decade to come which would decide where our school going population heads.

# 2

# Digital Transformation towards a Smarter Education

*Cecilia D'Costa* and Dr. Sybil Thomas***

**Abstract**

The Government of India has been pushing for implementation of the Digital India program to ensure that India does not lag behind in the establishment of a Digital society. The Indian Education sector is no exception with a tech savvy young generation looking forward to an improved quality of education supported by latest technologies which enhance accessibility. Educators need to re-align themselves to this new order and digitize Education. The College Managements do not have a clear direction as to how they should enforce this upgradation since skillsets of their staff differ; besides, different solutions exist in the market. This Paper is an attempt to showcase where we stand, at present. Key Findings of a Quantitative Study are presented in the sections below. These findings will enable the reader to get a fair understanding of the present situation. The Paper also prescribes recommendations which will facilitate an integrated approach towards re-skilling the Educators wholistically so that a complete digital learning ecosystem can be created. The evolution of Smart classrooms will digitally prepare us for a Connected Society. Successful implementation

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of the digitization program will have a drastic improvement in productivity/efficiency of educators as well as students. This will not only help cope up with situations like COVID-19 but also lead to an increased footprint of a broad-based knowledge society in India which can take on the world.

## I. INTRODUCTION

With so many Educational Institutes spiralling across the country; most of them through private participation (some tied up to global partners) in the Higher Education arena, survival in a competitive world has become crucial. Gone are the days where an Institute could simply rely on its name and past laurels. Teaching Institutes now need to innovate on a regular basis and exhibit perseverance to remain relevant.

The National Assessment and Accreditation Council (NAAC), an autonomous institution of the University Grants Commission (UGC) ensures that Higher Education Institutes are periodically assessed and ranked so that students are well informed before they make their choice. One of the core values on which the NAAC accreditation framework is based upon, is the use of technology for educational delivery which can enrich the overall learning experience [1]. Hence use of Information and Communications Technology (ICT) is imperative and the extent to which it can be used is only widening with every passing year. The faculty needs to get oriented accordingly. Further; technology acts as an enabler for digitization in documentation and data management bringing about operational efficiencies in running of the institution.

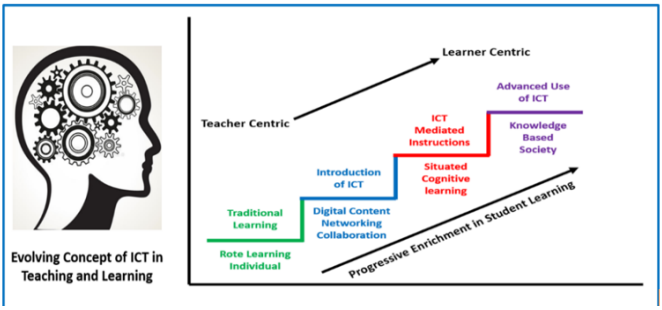


**Fig.1: Evolving Concept of ICT in Teaching & Learning**

Fig.1 shows us how ICT can help evolve Education progressively from a Teacher centric approach to a Learner centric approach

Some of the advanced ICT techniques [2] which can be used in Education are as follows:

- Augmented Reality (AR) wherein the image of an actual teacher is projected in a manner so as to make students in the classroom feel that the teacher is present (without he/she being physically present)
- Virtual Reality (VR) which enables a student to get a feel of what is happening in a geographically different location e.g. a student residing in Mumbai can undertake an educational tour of Rome, without physically travelling there.
- Video conferencing facilities e.g. Zoom, Google Meet, Microsoft Teams which enable online events like conferences, meetings, webinars, adult education for the under-privileged, for people residing in rural/remote rural areas and helping maintain social distancing, a norm to be followed during a pandemic like COVID-19.

To enable use of the above technologies, an awareness needs to be developed among the abled/disabled in an ethical manner using safety mechanisms for such a collaboration. Digital Literacy is hence a pre-requisite for ensuring maximum benefit to society from the above. Although NAAC has seven-point criteria for assessment of Higher Educational Institutes, this paper is limited to focusing on part of the second criteria viz. Teaching and Learning wherein Pre-Service Teachers (PST) in Mumbai were evaluated for their digital preparedness and perceived competence in the use of ICT for Teaching/Learning.

## II. DIGITAL LITERACY

Digital literacy is the ability to understand, use technical, cognitive and sociological skills to assess, integrate digital resources, evaluate critically and communicate ethically on a digital platform. The key skill in a knowledge-based society for a teacher is knowledge management i.e. how to find, analyze, evaluate, use and disseminate information, within a particular context from a knowledge pool. One who can correlate a learner's needs/desires with the objectives of the curriculum to achieve the desired educational goals fits well into the role of a teacher. A digitally ready product (PST) would definitely enhance the

perception of the Teacher Training Institute with quality being judged as to how the PST can adapt to an ever-changing digitized world and make a difference.

## III. THE RESEARCH STUDY AND IT'S AIM

A Research study was carried out across 15 B.Ed. colleges in Mumbai region during the start of the year 2020. In all, there were 500 respondents who were PSTs studying in the second year of B.Ed.

The study aimed at understanding the following objectives:

- To gain an overview of the Pre-Service Teachers' Digital Literacy levels in the areas of Information Processing, Content creation, Communication, Safety and Ethics
- To ascertain the existence of a Smart environment in Teacher Training Institutes and the extent to which Pre-Service Teachers (PST) use ICT in the Teaching/Learning process as an active participant in the digital learning ecosystem thereby helping permeate knowledge transformation.

## IV. REVIEW OF LITERATURE

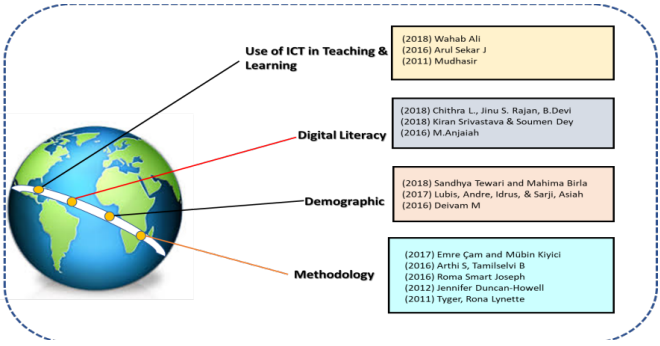


**Fig 2: Review of related literature**

Few researches [3-16] related to the usage of digital devices have been conducted in the past. Reflections of these studies/references is seen in the present study. However, the research scholar attempted to look at questions beyond usage and hence needed to obtain primary data i.e. Type of devices used; the extent of such a usage and if the trends showed a change/difference from research studies done in the past.

## V. RESEARCH METHODOLOGY

This Descriptive Research was carried out through a specially designed Tool which was developed to achieve the aim described above. The Questionnaire comprised of two major sections and sought to examine

- The use of ICT and it's integration in the Teaching/Learning process
- Digital Literacy levels of Pre-Service Teachers

Competence in the area of ICT related to the ability to use Internet, Software and Hardware both in an Online as well as Offline mode. A five-point Likert scale was used for the purpose and Digital Literacy levels were measured using a binary scale. In all, data was collected from five hundred (500) respondents (PSTs) who willingly co-operated in providing this information during a face to face interaction. The instrument was tested for its reliability and validity by administering the same to a select group of Pre-Service Teachers.

## VI. RESULTS AND ANALYSIS

Pre-Service Teachers who participated in this exercise were subject matter experts in three streams viz. Arts, Science and Commerce. 63.2% participants had a Bachelor's degree while the balance 36.8% were Post Graduates.

### Use of ICT for Teaching/Learning

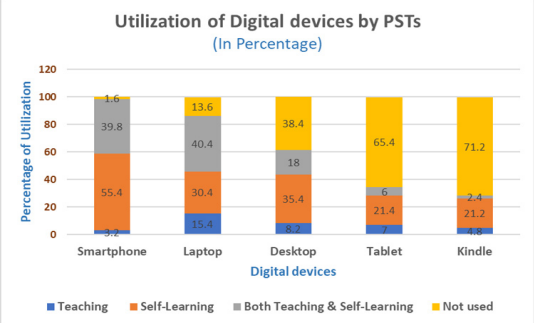


**Fig.3: A graphical trend of the usage of digital devices by PST**

Findings indicate that while Users are extremely familiar with use of Smartphones and Laptops indicating the trend of a tech savvy

Generation Next, not all of them are likely to derive mileage in their teaching profession. Smartphone is a useful tool for Learning as seen above and can be integrated into the Teaching/Learning process right away. For example, messages can be shared on Group chats, Group discussions can happen over an audio/video conference call.

Moderate usage of Personal Computers is primarily on account of mobility. Desktops are normally fixed at one location and are not movable. These devices are generally available for use in a Computer Lab or a Library (e-books). Low usage of Tablets and Kindle reflects a gap in the financial status of the participants which in turn has impacted their ability to learn and make use of these devices.

Use of Laptops (convenience and portability) for Teaching/Learning is significant. Tablets find traction for Learning only while Kindle is the most unused device for Teaching/Learning.

## Digital Literacy

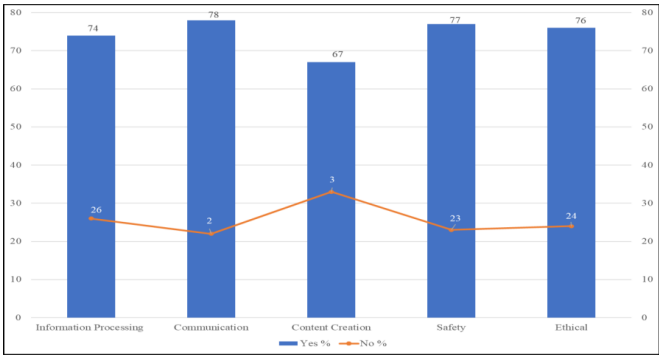


**Fig. 4: A graphical trend of literacy levels amongst PST in different areas of the digital domain**

Findings have been summarized below.

Content creation seems to a major gap for all participants. Further, 24% participants do not have an adequate knowledge of Ethics which is a cause for concern. An equal number of participants (23%) are not familiar with the safety aspects of IT which is also worrying. Skillsets in Information Processing need to be developed by 26% of the participants. Participants from an Arts background are marginally ahead of their counterparts in Science and Commerce. Safety and

Ethics are the fundamental tenets of Digital Literacy. With >20% participants not having any knowledge about these aspects, this trend is alarming.

Subsequently, present study has been able to produce evidence to support the claim that enabling PSTs to make use of ICT optimally will lead them to integrate digitization into their teaching activities. In addition to using technology as a learning resource, ensuring maximum digital literacy coupled with managing the activities of the institution in a technology-enabled manner will ensure effective institutional functioning.

The research scholar is aware that there could be a change in the usage pattern of digital devices due to an extensive use of technology for online teaching/learning during the COVID-19 times. This is in corroboration with the findings of a Tata Institute of Social Sciences (TISS) online publication (2020) [17] which highlighted not only key concerns (both personal and professional) but also

(*i*) Access to devices and internet

(*ii*) The nature of online activities

(*iii*) Professional development during the COVID-19 times

(*iv*) Support needed towards teaching

(*v*) Opinion regarding ease and difficulty of teaching topics online

## VII. RECOMMENDATIONS

Following are the broad recommendations based on the findings of the research study:

- Progressive Curricular transformation is required to be done year on year, starting with PST Education; keeping the end goal of establishing a Knowledge Society/Smart Education, in mind
- The Teaching/Learning process needs to be re-invented by gradually minimizing Rote Learning and subsequently discontinuing the same over a period of time
- Technology should be used to a maximum so that a Networked Society is established wherein everybody is connected in line with the Govt.'s thought process of a Digital India.
- All possible digital devices should be made available in the College Lab so that PSTs can get a feel of using them and hence improve

upon their digital literacy. This will also help resolve issues like financial constraints faced by some of them especially the socially disadvantaged groups in urban areas.

- PSTs should be encouraged to submit Assignments, Term work digitally so that they get familiar with the use of digital infrastructure. Some assignments should involve team work so that learning becomes socially engaging and digitally collaborative whereby use of online tools e.g. Google doc; Google drive etc. is encouraged. A Situated Cognitive approach should be integrated with ICT mediated instructions to facilitate this and create a discovery like experience.
- Internship for PSTs should be of two types i.e. Face to Face Classroom lectures and Online lectures. The online session should be recorded and a link should be shared with students.
- Any networking i.e. student-student; student-teacher; teacher-teacher should be encouraged through ICT. The practice of manual handwritten note exchange should be discontinued
- Colleges should tie up with e-libraries so that PSTs can access e-books across different disciplines.
- Advanced Technologies like AR should be used to impart education to rural students so that they benefit from a resourceful educator. VR should be used to provide rural students a virtual experience e.g. a virtual industrial visit. Video conferencing facilities (Zoom, Google Meet etc.) should be encouraged to reduce travel time and avoid expenses.

## VIII. CONCLUSION

While the use of digital devices has introduced major changes in professional activities; use of ICT is seen as driving a major social change. The benefits of digitization in Education can be taken to remote villages by leveraging broadband facilities provided by the Government of India through Bharat Net.

The main goal of the digital learning ecosystem is to permeate a "knowledge transformation" flow [18]. Teaching/Learning is conceptualized as the energy that fuels learning ecosystems and transforms "information" into different kinds of "knowledge."

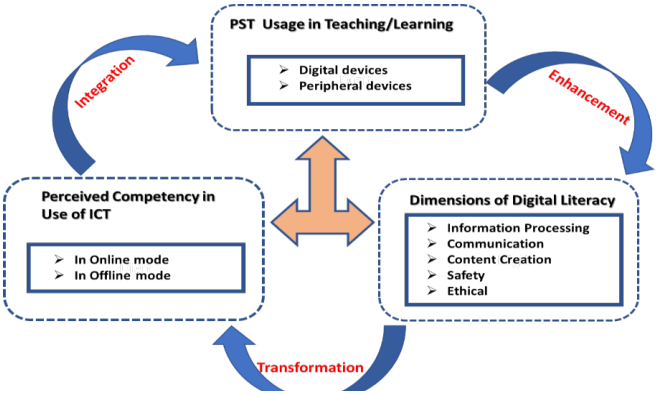


**Fig 5: Digital transformation in a learning ecosystem for a Smarter Education**

PSTs have the responsibility to shape up the new generation in a manner so as to establish a knowledge-based society; a networked society where everything is connected to each other; a learning society and a learning community. A digitally enhanced ecosystem depicted in Fig.5 above can help ingrain a digital citizenship across all practices of the classroom. The classroom environment of the digital age learning ecosystem is vibrant and includes both physical and online areas that are used and curated by the teacher and students. The new economy reflecting these changes in society will enable India as a country to progress and stand out distinctly in the new world order.

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# 3

# Use of TPACK Model for Designing Robust Learning Ecosystems

*Dr. Agnes Dcosta**

**Abstract**

The TPACK(Techno-Pedagogic –Content Knowledge) Model developed by Mishra and Kohler (2006) offers a direction to successful integration of technology, pedagogy and content to help teachers design and deploy effective teaching-learning experiences. The Model, which is an extension of Lee Shuman's Pedagogic Content knowledge, focuses on seven components which help a teacher to meaningfully integrate technology into pedagogic practices so as to transact content effectively. This paper analyses the seven components and seeks to identify components that need to be strengthened to help a teacher design an effective learning ecosystem.

***Keywords:*** Technological knowledge, content knowledge, pedagogic knowledge, TPACK

## INTRODUCTION

Teaching is a complex process involving sound content knowledge, suitable pedagogic practices and effective use of technology. Sound Content Knowledge(CK) of the teacher is imbibed during the pre-service stages (when the teacher goes through formal education to get his/her academic qualifications). This content knowledge is sustained and

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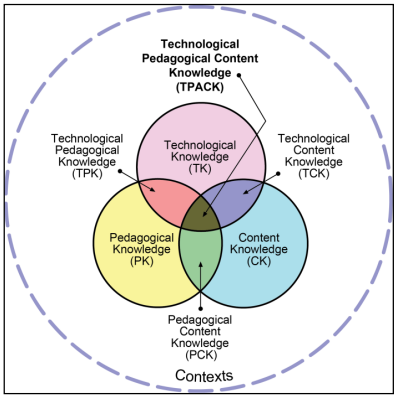
enhanced during the in-service period by reading reference material, interacting with online content and also through attending seminars and related events that focus on subject content. Pedagogic Knowledge(PK) is generally developed during the Teacher Education programme that prospective teachers undergo. However as part of formal and informal professional development every teacher is expected to enhance this Pedagogic Knowledge through experimenting with new pedagogic approaches, carrying out Action Research and orienting oneself to new pedagogic tools. Technological Knowledge (TK) is imbibed during both the pre-service and in-service periods through formal ways like undergoing training in technology or informal ways like indulging in self directed learning. The effectiveness of the learning ecosystem created by the teacher depends upon the right blend of Content Knowledge, Pedagogic Knowledge and Technological Knowledge. This paper analyses the status of the above three types of knowledge for a select group of in-service teachers and attempts to make suggestions to nurture robust learning ecosystems by use of TPACK Model. The study is entitled '**Use of TPACK Model for Designing Robust Learning Ecosystems'.**

## THEORETICAL BACKGROUND

The TPACK Model proposed by Mishra and Kohler support the integration of Technology-Pedagogy and Content Knowledge. It is an extension of Lee Shulman's theory of Pedagogic Content Knowledge. Seven areas emerge from the TPACK Model.




(Source: Rights free image taken from http://tpack.org/)

The seven components of the TPACK Model are described below.

(i) **Technological Knowledge (TK):** Knowledge of various technologies from low range technologies like chalkboard to digital technologies involving use of the internet.

(ii) **Pedagogic Knowledge (PK):** Knowledge of the methods of teaching, evaluation, lesson planning, classroom management and learner psychology.

(iii) **Content Knowledge (CK):** Knowledge of the subject that the teacher teaches.

(iv) **Technological-Pedagogical Knowledge (TPK):** Knowledge of which technologies are better suited to the approach that the teacher uses.

(v) **Pedagogical-Content Knowledge (PCK):** Knowledge of which pedagogic approaches are better suited to the content that is being taught.

(vi) **Technological-Content Knowledge (TCK):** Knowledge of how content can be enriched by use of appropriate technology.

(vii) **Technological-Pedagogical-Content Knowledge (TPACK):** Knowledge that helps teachers to integrate technology into the content area while incorporating appropriate pedagogic practices.

## OBJECTIVE OF THE RESEARCH

The objective of this study is to study the extent to which in-service teachers integrate the TPACK Model in the teaching-learning process.

## METHODOLOGY, SAMPLE AND TOOLS

The study is basically a descriptive research involving a survey. It is preliminary study conducted with the intent of finding out further how TPACK Framework is contexualised by teachers. Hence at this stage qualitative aspects are considered more than the quantitative aspects. The sample was limited to 24 in-service teachers to facilitate interaction with the teachers and get insight into how they integrate TPACK Framework within a contexualised situation. These teachers taught different subjects at the Secondary and Higher Secondary School levels. Convenience sampling was used to identify the participants. The tool was circulated on a social networking site comprising of those

who had completed their Teacher Education Programme during the academic year 2016-18. Thus all the participants have two years of teaching experience. A rating scale was used to find the extent to which in-service teachers integrate the seven areas of the TPACK Model. The four point rating scale had four statements for each of the seven areas.

## RESULTS

**Table-1: Status of various dimensions of TPACK Model**

| **Level of each dimension of the Model** / **Dimension of TPACK Model** | **Very High** | **High** | **Low** |
|---|---|---|---|
| Technological Knowledge | 62.5% | 37.5% | 0 |
| Pedagogic Knowledge | 79.1% | 20.9% | 0 |
| Content Knowledge | 79.1% | 20.9% | 0 |
| Content Pedagogic Knowledge | 66.7% | 33.3% | 0 |
| Techno-Content knowledge | 79.1% | 20.9% | 0 |
| Techno-Pedagogic Knowledge | 58.3% | 41.7 % | 0 |
| Techno-Pedagogic-Content Knowledge | 41.7% | 50% | 8.3% |

The above table indicates that more than 60 % participants report very high levels of knowledge in individual dimensions of the TPACK Model. When asked about levels of knowledge requiring a blend of two dimensions of the TPACK Model, more than 60 % participants have reported very high level for Content-Pedagogic Knowledge and Techno-Content Knowledge and 58.3% report that they have very high levels of Techno-Pedagogic Knowledge. However, where a blend of all three dimensions is need in form of Techno-Pedagogic-Content Knowledge just 41.7% feel that their level in this dimension is high. This indicates that while teachers evaluate themselves as competent in individual dimensions namely Technical Knowledge, Pedagogic Knowledge and Content Knowledge, they feel they are less competent at blending these dimensions together.

It is important to note that these results are based only on a self-disclosure tool. More research findings will emerge if along with self-disclosure, the respondents were also observed in actual classroom teaching situations to see how the three dimensions are blended. An

intricate analysis of their lesson plans, in depth interviews regarding the methods used and perhaps data garnered from students will help to have more meaningful data. Since this is only a preliminary study, the investigator has only used a self-disclosure tool. Even this gives some insights into the integration of TPACK Model in teaching and the discussion of these insights is presented in the form of implications.

**Implications**: The TPACK Framework has implications for Pre-service Teacher Education as well as for In-service Continuous Professional Development. It is also of significance when designing Open and Distance Learning (ODL) programmes.

(*i*) **Robust Content Knowledge with multidisciplinary nuances**: Content Knowledge includes knowledge of theories, concepts and organizational frameworks related to a subject. This will be influenced by other subjects within the discipline. It depends upon the grade or level that the prospective teacher will be teaching but is also linked to the content knowledge of the preceding and succeeding grades. Hence Teacher Education Institutes must include experiences for a strong content base with a multi-disciplinary perspective. For example, a teacher teaching Chemistry must have sound knowledge of Physics, Biology and Mathematics and also have reasonable knowledge of other disciplines as these will reflect on the understanding of the content knowledge of Chemistry. If the teacher teaches Chemistry at Secondary level. He/she must be aware of what the learner has learned at Primary level and what is included at the Higher Secondary level in the subject. Besides this, knowledge of the application of what is in the content is extremely important. Teacher Education should therefore give importance to creating a proper content base. Content enrichment programmes can help in this direction.

(*ii*) **Meaningful Pedagogic Practices**: Pedagogic practices in general include knowledge of the practices and processes of teaching-learning. Child psychology, classroom communication, theories of learning, group dynamics, assessment practices, philosophical and sociological base of education, knowledge of a country educational policies and a very good understanding of the local context are essential to designing meaningful pedagogic practices. While these areas are duly addressed through the Teacher Education curriculum,

it is worthwhile to have theory-practice connects through well planned internships, action research, mentoring by school teachers, sharing of best practices in pedagogy and motivating student-teachers to try innovative pedagogic practices geared to the needs of the students.

(*iii*) **Building Technological Skills:** Having knowledge of technology and possessing the ability to use it skillfully is every essential to a teacher. In the present times, a teacher needs to be aware of use of apps, Virtual Reality/ Augmented Reality, cloud based education and Web 2.0 technology to foster student involvement in learning. Basic trouble shooting skills and ability to choose forma wide array of digital resources coupled with a strong base of media literacy and information literacy are all vital as part of technology skills. Most pre- service Teacher Education programmes do take this aspect into consideration by including a course in Information and Communication Technology. But this needs to be an evolving course with plenty of learner flexibility as new technology keeps getting added every day. So rather than have student-teachers merely learn technological tools, it will be better if they 'learn how to learn about technology'.

(*iv*) **Ability to have an optimal blend of the TPACK dimensions**: It is very important for teachers to find the right blend of the three dimensions of the TPACK Model. This means that teachers know how to use tech tools along with appropriate pedagogic practices appropriate to the content being transacted. For example, if a teacher is using an LMS to support the students learning, then knowledge of content (CK) and knowledge of the LMS (TK) must be supported with sound knowledge of the pedagogy best suited for the LMS. If in this case the teacher only uses the LMs to post text material then there is no optimal use of the LMS in terms of the pedagogic techniques it can support. But if the teacher uses the LMS to foster collaborative learning, to cater to different learning styles, to assess and offer remedial inputs to those who need the same then we can say that the technological features of the LMS are well coordinated with the pedagogic inputs. Thus purposeful blending of Content Knowledge, Technological Knowledge and Pedagogical Knowledge is ensured if one uses the TPACK Model.

For this teachers need to know how to plan using technology be it for in-person face to face learning or online learning. In in person learning, the teacher is present and uses technology to support the classroom experiences. Here since learning in synchronous mode and in presence of peers, use of technology should be judicious. It should not replace hands- on- experiences, discussion and such other experiences that involve student-student and student-teacher interaction. If using the Blended Learning Mode then students may learn asynchronously using appropriate tech tools. Such experiences could include individual or group activities. Teacher Education and Continuous Professional Development experiences for teachers therefore must help teachers to choose the right technology and the right pedagogic approaches.

(*v*) **TPACK Model in the context of ODL Programmes**: Open and Distance Learning(ODL) is an important aspect of lifelong learning. ODL programmes present opportunities for professional development and career advancement. Technology provides a platform to reach learners by transcending boundaries of space and time. ODL programmes must be guided by TPACK Model and pedagogies must be aligned to learner attributes like their maturity, need, experience and interests. Many of these learners have varied backgrounds and may join an ODL programme expecting different learning outcomes. TPACK helps to design variety of experiences so that learners can choose learning experiences suitable to their needs. The National Education Policy 2020 states that credits will be given in all Bachelor's Degrees if they are done from various departments in multidisciplinary institutions or through ODL mode when they are not offered in-class at the Higher Education Institutes. For this ODL programmes will assume a new significance and will have to be of high standards. Implementation of the TPACK Model will help to enhance the quality of ODL programmes.

In conclusion, it can be said that the TPACK Model is useful for in- person learning, Blended Learning and Open and Distance Learning. It is useful across all disciplines. The Model can be used to design effective learning experiences during formal education as well as for professional development. Hence all educators need to reflect on the Model and integrate it for teaching-learning and assessment.

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# 4

# Revitalizing Professional Development and Cultivating Learning Communities

*Dr. Savita Sharma**

**Abstract**

In the field of education, the concept of communities of component professionals actively and interactively building on one another s knowledge of students, their disciplines and pedagogy is a radical departure from most current conceptions of teaching, and consequently of professional development. In majority of schools and colleges today, "staff developers", often with minimal classroom teacher participation, plan and provide in-service training. Most often, these training's take the form of single workshops, or sometimes a course involving several sessions.The emphasis is on the staff developer presenting or transmitting pedagogical strategies that teachers will apply to their own particular students and classroom. A deficit model frequently underlies this conception, with the assumption that teacher's missing skills have been identified. Moving teaching from solo practice to active membership in a professional community capable of reflection and active construction of its own knowledge and skills is essential if we are to prepare teachers and students adequately for the challenges of the next century.This paper throws light on the alternative view of the role of staff developer as a collective role with broad and

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permeable participation. Five actions are also recommended that professional in education can take in order to create a diagnostically oriented and more fully professional model of staff development.

## INTRODUCTION

Professional development is seen as the transmission of knowledge and practices from staff developer to teacher,we need to invent a new model in which staff developers and teachers join with one another to build a common professional community. Louis et al (1996) find that when teachers worked together, engaged in professional conversation and focused on students work, they develop a shared sense of responsibility to student learning.It is this variable,shared responsibility for student learning, that correlates with higher overall student achievement in the school studies.Thus teachers were historically seen as a mechanism form transmitting knowledge and socialization to students in a school system build on a industrial model of inputs and outputs and the theory of learning is more static than our current conceptions.I recommend five actions that professionals in education can take in order to cultivate professional learning communities.

## CULTIVATING PROFESSIONAL LEARNING COMMUNITIES : FIVE RECOMMENDATIONS

Five substantive actions are recommended that professional development leaders take to construct models of workplace-based,lifelong learning,capable of promoting and sustaining the professional growth of teachers. They are

1. Craft analogue experience to engage teachers as learners.
2. Use assessment tools that reveal students understanding and thinking.
3. Facilitate intimate professional conversations about teachers beliefs and practices.
4. Use documentation strategies that encourage reflection - in - action and collect teachers with a wider professional community.

5. Advocate for a "blanket of support" from the school and district organization to enable teachers to learn together

These actions seems essential to the building of a professional community engaged in, or developing the capacity to engage in, diagnostic teaching.These actions were not seen as something to be done to teachers,rather each was a critical feature of how teachers in their roles as classroom practitioners and professional development staff,in their roles as facilitators, where interacting to co-construct a community of professional inquiry and mutual support

## 1. CRAFT ANALOGUE EXPERIENCES

Teachers cannot work with their students in more active, inquiry-based ways unless they themselves have experienced this kind of learning first hand. Knowing this Riley and Morocco(1996), specifically term "analogue experiences",tasks in which teachers do science and mathematics,conduct historical inquires, or undertake writing assignments similar in purpose to those that they will ultimately asking their students to do.These must be truly intellectually challenging experiences for teachers;in some cases,the stimulus material they use may be different from what they will give students,so that they will be fully challenges as adults.The purpose of these analogue experiences is twofold.First,analogue experiences help teachers understand what it feels like to be given an open-ended,exploratory assignment,how different from more didactic teaching such learning activities are, and how energizing they can be.Analogue experiences are important for helping teachers to understand a more active,inquiry-based approach and to come to know what its like to engage in that sort of work from the learners perspective.

Second,analogue experiences are essential for helping teachers build their own understanding of their discipline. The kind of experiences designed for teachers in these projects,it became apparent that they engage teachers in building disciplinary knowledge, deeper personal understanding of the big ideas in a given subject area;a more profound understanding of the ways of observing, knowing or validating truth that have developed, and are relied upon in any given intellectual discipline and more self-conscious reflection about the kinds of questions, needs and societal problems that different disciplines are best equipped to address.

## 2. USE ASSESSMENT TOOLS THAT REVEALS STUDENTS UNDERSTANDING AND THINKING

The richest part of teachers repertoire usually is his or her instructional strategies,and teachers tend to lead with these strategies rather than with an approval of student understandings.Assessment tools can play a critical role-by redirecting teachers focus away from a predetermined pedagogical strategy to an appreciation for what students understand, believe,can and cannot do or for what students may find confusing,interesting or productively puzzling.Thus there is no reason to rely on a single way to reveal student's knowledge,skills or interests. Depending on the content and purpose,a variety of tools,sometimes in combination,may be helpful.

Driscoll (1998 ), suggests three broad categories of assessment -

(*i*) asking questions to students including talking with students about their work)

(*ii*) Observing students at work(observing videotapes of students working on problems or conversing about content; serving as observers in one another's classroom; transcribing conversations from their own classrooms)

(*iii*) Examining students products (students journals, homework, problem notes, classroom test results).

Because traditionally classroom assessments have been carried out to judge student mastery of content or skills, teachers can find it difficult to add to their repertoire assessments which require that they initially simply describe what is a students work.But neutral description is the first important step in this kind of assessment; as a result, some "scaffolding" of teachers collaborative assessment of students work is usually necessary. Several other streams of work in professional development emphasize the importance of jointly examining students work to better understand or 'diagnose' individual students thinking and skills( Allen, Blythe, & Powell,1996). Seidel's (1991,1996) collaborative assessment approach and David Allen's (1995) 'Tuning Protocol', both use structured assessment protocols that require the teacher presenting a given students work to initially simply listen to the other participants comments about the work in order to fully take in others observations and perspectives.

## 3. FACILITATE INTIMATE PROFESSIONAL CONVERSATIONS ABOUT BELIEFS AND PRACTICES

One of the more subtle and complex roles that professional coaches play in these projects is facilitating what we have come to call " intimate conversations" among teachers. These are conversations because they are truly collaborative, often very informal, discussions with full give-and-take between the parties-a far cry from demonstration of technique or didatic presentations. In intimate conversations, skillful coaches are subtle conversational partners guiding, eliciting, supportively probing or playful challenging and as a result teachers become willing to share their failures as well as their successes.

Conversations are also intimate sites for supporting individual teachers in their own varied growth processes.Teachers are not all at the same level in their understanding and skills as a diagnostic teachers. Schifter and Simon [1992] describes four different stages that seem to characterize the development phases teachers go through as the change their instructional practice in mathematics. In stage 1,teacher's views of learning are not at all learner-centered,but then the teachers progress until,at stage 4,they focus on student's learning for a constructive perspective and can design instruction based on student's perspective.Thus good facilitators clearly have deep content knowledge and are themselves expert practitioners,truly experienced facilitators tend to hold back from telling answers.Because they are coaching teachers to listen to student's ideas,skillful facilitators model how to listen and build on teacher's ideas and observations.

## 4. USE DOCUMENTATION STRATEGIES

One of the most intriguing roles for professional development is that of guiding the documentation of the ongoing work of the professional community.The assumption of the program is that the collaborative work of the group and the particular ways that participant implement new ways of teaching in their classrooms are grist for all member's learning and therefore need to be recorded and revisited in various ways.

This describe the documentation strategies and ways in which group "data" were used to move individuals forward.In fact the chapter themselves with rich stories, detailed examples, think- aloud, and verbatim participant comments--are evidence of extensive amounts

and array of documents that took place.Projects that were funded as research projects had specific resources,activities and staff devoted to gathering data around specific research questions.According to the Watts, sharing the results of data analysis and formulating consistent teaching decisions are not only an effective tool for professional development but also "a moral imperative of the action researcher and an integral part of the research". In-fact, four different purposes with each project, reflecting one,or some combination,of these purposes:

1. Scaffold(i.e,provide temporary and flexible support for ) the immediate, ongoing collaborative learning process in the group.
2. Enable participants to track their own personal growth overtime.
3. Provide case material for analysis and reflection by others outside the group.
4. Contribute to the published professional literature.

## 5. ADVOCATE FOR A "BLANKET OF SUPPORT"

All the projects described above were designed, organized and carried out by the groups of staff together with colleagues in collaborating schools, universities,community industries etc. Driscoll's use the word "blanket" strikes us as particularly apt.It connotes the need for comprehensive support so that teachers can be included in the restructuring. "Blanket" conveys an image of safety and protection for the personal risk taking that is involved.It also implies the safeguarding of time and establishment of new work norms,so that teachers can engage in new kinds of adult learning and classroom practice.The incipient professional communities are able to get a toehold because some group of individuals created time for teachers to meet and work with other teachers and professional development staff.

## CONCLUSION

Although ample lip service is paid to the notion that teachers are professionals, in-fact teachers live isolated lives with little emphasis on their own learning.They operate mostly in self contained classrooms without even the simplest rudiments of a professional life such as personal computer, convenient access to professional journals and conferences.There are many routes for professionalizing the craft of teaching,including the, more regress pre-service education, more

emphasis on subject matter expertise and disciplinary knowledge, standards of accreditation, more clearly delineated career pathways for experienced teachers and more appropriate levels of financial compensation.However,regardless of how successful we are in these domains,ultimately teachers must do their work in schools and colleges. The institutional environment we built must be capable of attracting highly qualified, self motivated teachers and must offer them the opportunity to join a vibrant professional community.Professional development of staff,teachers,principals,curriculum coordinators,school committee members and other community leaders committed to building such professional communities within their own school systems,can play a vital role in national effort to revitalize the teaching profession.

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# 5

# Understanding the Relationship between Teacher Efficacy, Teacher Knowledge and Pedagogical Beliefs for better Teacher Performance

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**Abstract**

Teacher efficacy, teacher knowledge and pedagogical beliefs are key contributory factors towards better teacher performance. This study explored the relationship between these constructs through a quantitative framework using a descriptive research of the survey and correlational type. Tools used were TSES, Pedagogical Beliefs Scale and Teacher Knowledge Paper-pencil Test. The survey was conducted among 592 pre service teachers of Metropolis of Mumbai. Correlational analyses showed a negligible, positive and significant relationship of Teacher Efficacy with Teacher Knowledge; low, positive and significant relationship of Teacher Efficacy with Pedagogical Beliefs and no significant relationship of Teacher knowledge with Pedagogical Beliefs. Implications of these findings are discussed in the paper.

***Keywords:*** Teacher Efficacy, Teacher Knowledge and Pedagogical Beliefs

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## TEACHERS MATTER

The very significant role played by teachers in a society is often underestimated as compared to other professions. Considering the multitude of roles played by a teacher, it is not at all an exaggeration to say that teachers can change lives while nurturing the future of nations. Understanding the vital role played by quality teachers in shaping the nation, the NEP 2020[8] endorses a competency based model for teachers and teaching and proposes the development of a common National Professional Standards for teachers in India. This endorsement urges for more research to be undertaken to explore more ways to enhance teacher competence and performance through capacity building. Teacher efficacy is a construct that reflects teachers' mindset about their abilities to produce a conducive environment for their students and hence it is indicative of competent teachers with good teacher performance. When teachers are vested with the educational challenge of having competence to equip students with global knowledge and academic skills necessary to become productive citizens in the 21st century, teacher efficacy garners greater significance. Professional training and in service development play significant role in the development of efficacy beliefs. Teacher knowledge and pedagogical beliefs are two other factors that influences the performance of a teacher in the classroom. This study tries to understand the relationship between these three constructs – teacher efficacy, pedagogical beliefs and teacher knowledge- which are paramount to teacher performance and development.

## SIGNIFICANCE OF THE STUDY

This study being conducted among pre service teachers becomes particularly significant since examining teacher efficacy of pre-service teachers during teacher preparation is important as teacher efficacy beliefs are malleable early in learning (Bandura, 1997)[2] and once established, are somewhat resistant to change (Pajares, 1996)[8]. So the findings of the study will enable teacher education programmes to act upon it and create appropriate activities to develop the necessary knowledge and beliefs which would make them effective professionals in the future. The results of this study are significant in that a better understanding of the nature of teacher efficacy and its development and the relationship between efficacy, teacher knowledge and pedagogical knowledge may contribute toward more effective planning of teacher education and professional development of teachers.

## STATEMENT OF THE PROBLEM

Understanding the Relationship between Teacher Efficacy, Teacher knowledge and Pedagogical Beliefs for better Teacher Performance

## OPERATIONAL DEFINITION OF THE TERMS

### *1. Teacher Efficacy*

***Teacher Efficacy*** is defined by Tschannen-Moran & Woolfolk-Hoy (2001) [14] as teachers' beliefs in their abilities to organize and execute courses of action necessary to bring about desired results.

***Teacher Efficacy*** is operationally defined as pre service teachers' beliefs in their abilities in areas of student engagement, instructional practices and classroom management as measured by the TSES scale developed by Tschannen-Moran & Hoy (2009)[15].

### *Dimensions of Teacher Efficacy*

*(i)* ***Efficacy in student engagement (ESE)*** is defined as pre service teachers' belief in their ability to gain and sustain attention, curiosity, interest, optimism, and passion of students when they are learning or when being taught, which extends to the level of motivation they have to learn and progress in their education.

*(ii)* ***Efficacy in instructional practices (EIP)*** is defined as pre service teachers' belief in their ability to use applications that fuel effective and efficient classroom interaction to drive students on their journey of discovery in a Learning Experience.

*2.* ***Efficacy in classroom management (ECM)*** is defined as pre service teachers' belief in their ability to use wide variety of skills and techniques that teachers use to keep students academically productive in class being organized and attentive on task.

### *3. Teacher Knowledge*

General Pedagogical Knowledge is considered as Teacher Knowledge in the present study.

General pedagogical knowledge (GPK) is defined by (Voss et al. 2011) [16], as the knowledge needed to create and optimize teaching–learning situations across subjects, including declarative and procedural knowledge of the different classroom processes (instructional practices & classroom management) and student heterogeneity.

Teacher Knowledge is operationally defined as the scores obtained in a knowledge assessment paper and pencil test developed by Fives (2003)[7].

### *4. Pedagogical Beliefs*

Pedagogical Beliefs are operationally defined as pre service teachers' perceived importance and the value they ascribe to different knowledge types and their beliefs about teaching in general and measured on a scale developed by Fives (2003).

## OBJECTIVES AND HYPOTHESES OF THE STUDY

The study primarily seeks to investigate the relationship of teacher efficacy and its dimensions, namely, efficacy in student engagement, instructional practices and classroom management with teacher knowledge and pedagogical beliefs. The following objectives were framed.

1. To ascertain the relationship of Total Teacher Efficacy (TTE) and its dimensions (ESE, EIP & ECM) scores with Teacher Knowledge scores of pre service teachers
2. To ascertain the relationship of Total Teacher Efficacy (TTE) and its dimensions (ESE, EIP & ECM) scores with Pedagogical Beliefs scores of pre service teachers
3. To ascertain the relationship of Teacher Knowledge scores with Pedagogical Beliefs scores of pre service teachers.

For each of the objective a corresponding null hypothesis was framed.

## CONCEPTUAL FRAMEWORK OF THE STUDY

Teacher efficacy is a construct that have powerful influence on several educational outcomes like student achievement and motivation and teacher performance, persistence and motivation. This construct has its theoretical origin from Rotter's (1966)[10] internal-external LOC in social learning theory and Bandura's (1977)[1] self-efficacy concept within social cognitive theory. The locus of control theory when applied to educational situation implies that teachers who believe that they are competent to teach difficult or unmotivated students are considered to have internal control. On the other hand, teachers who believe that

environmental factors have more influence on student learning than their teaching are considered to have external control. *Self-efficacy* is a "belief in one's capabilities to organize and execute the courses of action required to produce given attainment" (Bandura, 1977 p.192). Teacher efficacy formation is influenced by the four sources proposed by Bandura (1977), namely, mastery experiences, vicarious experiences, verbal persuasion and emotional states. Integrating the locus of control and self-efficacy theories, Tschannen-Moran and Hoy proposed a model illustrating a cyclical relationship between sources of efficacy, cognitive processing of task and competencies and teacher efficacy

General pedagogical knowledge is one among the seven categories of teacher knowledge given by Shulman (1987)[12]. The main factors of this category are knowledge in student engagement, instructional practices and classroom management. Pedagogical beliefs are conceptualized as a specialized class of beliefs that reflect teachers' understanding of teaching and valances ascribed to that understanding (Fives, 2003).

Raudenbush et al. (1992)[9] suggested that teacher efficacy serves as a mediator between knowledge and performance. Teachers' possession of knowledge will not ensure effective practice; it is efficacy that provides teachers the impetus to utilize their knowledge and skills. Pedagogical belief is yet another factor that influence the performance of teachers in a class through the selection of strategies. This relationship between teacher efficacy, teacher knowledge and pedagogical beliefs was examined in the study using an extended form of Tschannen-Moran & Hoy (1998) integrated model as shown in Figure 1.

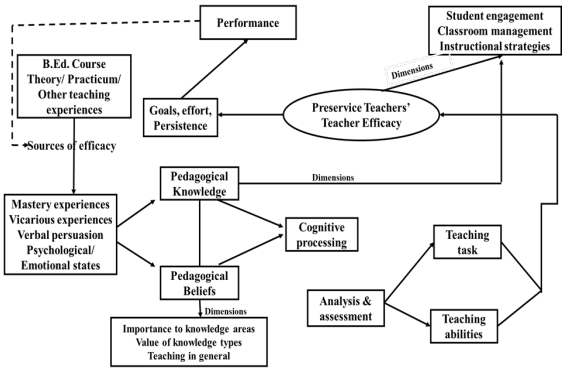


**Figure 1 Conceptual Framework of the Study**

## RESEARCH DESIGN

The design features of the present quantitative descriptive study is described below.

## METHODOLOGY

The methodology of the study was descriptive research of the survey and correlational type. The survey was conducted among a sample of preservice teachers using well designed instruments. The survey was followed by a correlation research which measures whether and to what degree a statistical relationship exists between two or more variables. The data collected through the survey was analysed statistically by calculating the Pearson's correlation coefficient (r) and tested for significance by addressing the hypotheses framed.

## SAMPLE

From the described population of preservice teachers in the Metropolis of Mumbai, a sample of 592 from 9 colleges was selected through stratified sampling followed by incidental sampling for selection of the colleges.

## TOOLS

The tools used in the study are given below.

1. Teachers' Sense of Efficacy Scale (TSES) by Tschannen- Moran and Hoy, (2009).
2. Teacher Knowledge Tool developed by Helenrose Fives (2003), adapted by the researcher (content validity done by experts, item analysis done to remove ambiguous items).
3. Pedagogical Beliefs Scale by Helenrose Fives (2003).

## STATISTICAL PROCEDURE

Descriptive analysis of measures of central tendencies (mean, median & mode), measures of dispersion (standard deviation & range), and measures of symmetry (skewness & kurtosis) were done.

Inferential analysis of Pearson's correlation coefficient was employed for validating the hypotheses.

## DATA ANALYSIS AND INTERPRETATION

### Descriptive Analysis

Table 1 gives details about the measures of central tendency, dispersion and symmetry of the teacher efficacy, teacher knowledge and pedagogical beliefs scores.

**Table-1: Measures of Central Tendency, Dispersion and Symmetry of the Teacher Efficacy, Teacher Knowledge and Pedagogical Beliefs Scores.**

| Measures | Teacher Efficacy | Teacher Knowledge | Pedagogical Beliefs |
|---|---|---|---|
| Mean | 174.39 | 14.05 | 97.58 |
| Median | 176 | 14.37 | 98 |
| Mode | 186 | 15 | 98.84 |
| Standard Deviation | 20.58 | 3.66 | 9.39 |
| Kurtosis | 0.70 | 0.076 | -0.14 |
| Skewness | -0.68 | -0.15 | -0.24 |

***Interpretation***

Table 1 indicates that teacher efficacy, teacher knowledge and pedagogical beliefs have near normal distributions. All three distributions are slightly negatively skewed and leptokurtic.

## INFERENTIAL ANALYSIS

Pearson's product correlation coefficient (r) technique was employed to ascertain the relationship between the variables. The value of 'r' ranges from +1 to -1 reflecting the extent of linear relationship between two set of data.

***Testing of Hypotheses 1 to 4***

**$H_0$1.** There is no significant relationship of Total Teacher Efficacy (TTE) scores with Teacher Knowledge scores.

**$H_0$2.** There is no significant relationship of Efficacy in Student Engagement (ESE) scores with Teacher Knowledge scores.

**$H_0$3.**There is no significant relationship of Efficacy in Instructional Practices (EIP) scores with Teacher Knowledge scores.

**$H_0$4.** There is no significant relationship of Efficacy in Classroom Management (ECM) scores with Teacher Knowledge scores.

**Table-2: The r-value of Teacher Efficacy and its Dimensions with Teacher Knowledge**

| Variable 1 | Variable 2 | N | df N-2 | r-value | Level of significance |
|---|---|---|---|---|---|
| Total Teacher Efficacy (TTE) | Teacher Knowledge | 592 | 590 | 0.16 | Significant at 0.01 level |
| Efficacy in Student Engagement (ESE) | | | | 0.16 | Significant at 0.01 level |
| Efficacy in Instructional Practices (EIS) | | | | 0.18 | Significant at 0.01 level |
| Efficacy in Classroom Management (ECM) | | | | 0.092 | Significant at 0.05 level |
| *(The critical value of r at 0.01 and 0.05 levels of significance for df=590; are 0.115 and 0.088 respectively)* | | | | | |

***Results and Interpretation***

**$H_0$1.**Table 2 shows that the r-value for TTE and Teacher knowledge is 0.16. This indicates a positive, negligible and significant relationship between Total Teacher Efficacy and Teacher Knowledge. *Hence the null hypothesis 1 is rejected*.

**$H_0$2.**Table 2 shows that the r-value for ESE and Teacher knowledge is 0.16. This indicates a positive, negligible and significant relationship between Efficacy in Student Engagement and Teacher Knowledge. *Hence the null hypothesis 2 is rejected*.

**$H_0$3.**Table 2 shows that the r-value for EIP and Teacher knowledge is 0.18. This indicates a positive, negligible and significant relationship between Efficacy in Instructional Practices and Teacher Knowledge. *Hence the null hypothesis 3 is rejected*.

**$H_0$4.**Table 2 shows that the r-value for TTE and Teacher knowledge is 0.092. This indicates a positive, negligible and significant relationship between Efficacy in Classroom Management and Teacher Knowledge. *Hence the null hypothesis 4 is rejected*.

***Discussion of Findings***

The above results show that there is a significant positive relationship of teacher efficacy and its dimensions with teacher knowledge. This indicates that greater the general pedagogical knowledge of the pre service teachers; higher is their efficacy belief and vice versa. This finding is in agreement with many prior researches which concluded that higher knowledge reflects greater efficacy (Sharp et al. (2016)[11], Daniela et al. 2017[3]). The theoretical and practical knowledge gained by pre service teachers during the course make them feel capable of creating effective learning classroom situations. Teacher education enables the prospective teachers to successfully acquire pedagogical knowledge and provides opportunity to attain mastery experiences during practice teaching which acts as a source of efficacy belief generation.

***Testing of Hypotheses 5 to 9***

**$H_0$5.** There is no significant relationship of Total Teacher Efficacy (TTE) scores with Pedagogical Beliefs scores.

**$H_0$6.** There is no significant relationship of Efficacy in Student Engagement (ESE) scores with Pedagogical Beliefs scores.

**$H_0$7.** There is no significant relationship of Efficacy in Instructional Practices (EIP) scores with Pedagogical Beliefs scores.

**$H_0$8.** There is no significant relationship of Efficacy in Classroom Management (ECM) scores with Pedagogical Beliefs scores

**$H_0$9.** There is no significant relationship of Teacher Knowledge scores with Pedagogical Beliefs scores.

**Table-3: The r-value of Pedagogical Beliefs with Teacher Efficacy and its Dimensions and with Teacher Knowledge**

| Variable 1 | Variable 2 | N | df N-2 | r-value | Level of significance |
|---|---|---|---|---|---|
| Total Teacher Efficacy (TTE) | Pedagogical Beliefs | 592 | 590 | 0.26 | Significant at 0.01 level |
| Efficacy in Student Engagement (ESE) | | | | 0.23 | Significant at 0.01 level |
| Efficacy in Instructional Practices (EIS) | | | | 0.24 | Significant at 0.01 level |
| Efficacy in Classroom Management (ECM) | | | | 0.23 | Significant at 0.05 level |
| Teacher knowledge | | | | 0.009 | Not Significant |

***Results and Interpretation***

**$H_0$5.** Table 3 shows that the r-value for TTE and pedagogical beliefs is 0.26. This indicates a positive, low and significant relationship between Total Teacher Efficacy and Pedagogical Beliefs. *Hence the null hypothesis 5 is rejected.*

**$H_0$6.** Table 3 shows that the r-value for ESE and pedagogical beliefs is 0.23. This indicates a positive, low and significant relationship between Efficacy in Student Engagement and Pedagogical Beliefs. *Hence the null hypothesis 6 is rejected.*

**$H_0$7.** Table 3 shows that the r-value for EIP and pedagogical beliefs is 0.24. This indicates a positive, low and significant relationship between Efficacy in Instructional Practices and Pedagogical Beliefs. *Hence the null hypothesis 7 is rejected.*

**$H_0$8.** Table 3 shows that the r-value for ECM and pedagogical beliefs is 0.23. This indicates a positive, low and significant relationship

between Efficacy in Classroom Management and Pedagogical Beliefs. *Hence the null hypothesis 8 is rejected.*

**$H_0$9.** Table 3 shows that the r-value for Teacher Knowledge and Pedagogical Beliefs is 0.009. This indicates there is no significant relationship between Total Teacher Efficacy and Pedagogical Beliefs. *Hence the null hypothesis 9 is accepted.*

## DISCUSSION OF FINDINGS

The above findings (**$H_0$5- $H_0$8)** show that there is a positive significant relationship between teacher efficacy and its dimensions with pedagogical beliefs. This indicates that pre service teachers with higher levels of efficacy demonstrated more sophisticated pedagogical beliefs and vice versa. Higher the efficacy of pre service teachers greater is the importance and value they ascribe to different pedagogical knowledge and its types or vice versa. A person possessing high efficacy in instructional practices believe that knowledge of different teaching methods/ strategies are important to become an effective teacher. Fives (2003) study showed a positive relation between teacher efficacy and pedagogical beliefs. Other studies have also shown a positive correlation with pedagogical knowledge beliefs and the usage of knowledge [eg. Techno pedagogical beliefs and technological integration (Tondeur, Ertmer, et al (2016)[13], Abbitt, 2011)]. Usage of this knowledge provides for mastery experience and positive psychological states and thus enhances efficacy. So this could be a probable reason for a positive relation between efficacy and pedagogical beliefs.

The above result of **$H_0$9** shows that teacher knowledge has no significant relationship with pedagogical beliefs. This indicates that different teachers' knowledge about pedagogical practices are not influenced by the same pedagogical beliefs. This can be explained by the view of Nespor (1987, as cited in Ertmer, 2015)[6] that belief systems because of its highly personal nature, unlike knowledge systems, do not require group consensus, and thus may be quite idiosyncratic. So it can be assumed that teachers having the same knowledge about a pedagogical practice may not hold the same importance to it. In other words, possession of a particular knowledge do not make a teacher value it as much.

## IMPLICATIONS OF THE STUDY

In order for prospective teachers to become effective practitioners in the school settings they should possess great knowledge, high efficacy beliefs and sophisticated pedagogical beliefs. The study shows a relationship of teacher knowledge and beliefs with efficacy. In order to build strong knowledge and beliefs in the pre service teachers, both academic learning as well as experiential learning are important. Efficacy beliefs of pre service teachers can be enhanced by paying attention to the different sources of efficacy beliefs. Planning, designing and implementing appropriate teaching experiences into a quality student teaching program will promote better prepared teachers. According to Darling-Hammond (2006)[4] it is essential for pre service teachers to practice and develop their skills and knowledge under the guidance of educational experts.

## CONCLUSION

The study examined the relationship between three important constructs – teacher efficacy, teacher knowledge and pedagogical beliefs which are contributory factors to better teacher performance. Results indicated a significant relationship of teacher efficacy with teacher knowledge and pedagogical beliefs. This findings and implications should provide valuable insights in planning and implementing different teacher education programmes as well as in service programmes for teachers.

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# 6

# Empowering Student-Teachers to Create Waves of Progressive Social Change: The Ripple Effect

*Dr. Giselle Ann D'souza**

**Abstract**

Safeguarding the environment is a pressing need in the context of our times. One cannot evade the candid truth that our planet is well on its way to extinction if humans are not adequately sensitized to their role in Environmental Stewardship. The profound consequences of exploiting nature can be averted if each inhabitant of the earth takes the green pledge. Environment Education is at present a subject in school and college curricula. The challenge of transforming it from the status of theory to action has been explored by implementing the 'RIPPLE' model and analyzing how its syntax can make environmental consciousness a viable reality. Rooted in the 'Ripple Effect', the model is directed towards tapping the potential of Gen-next to serve as agents of social change, creating waves of transformation with far reaching effects. Driven towards the noble goal of environmental conservation, the model has helped to reap rich dividends which have been discussed in this paper with respect to 2 environmental endeavours undertaken by the institution, namely, the Go-Green with Tetrapak Campaign and the Save Water- Safe Water project, both of which have met

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with laudable success. The prime highlight of the RIPPLE model along which these green ventures were designed was the fact that knowledge and awareness originate from a central point but there is no limit to the extent that they can be radiated across, transcending all boundaries and barriers leading to a Green Evolution.

## THE CONTEXT THAT NECESSITATED THE LAUNCH OF THE PRACTICE

The threats facing humanity in terms of depletion of resources, degradation of the environment and the detrimental effects of abusing nature are insurmountable. The truth is inevitable- a slow but steady decay and death of the planet at large. If we have to avert this impending calamity, each of us has to make an informed choice to make a difference. What better way than to sensitize, empower and involve the student fraternity by transforming them into agents of change. It is time we heeded the clarion call to save our planet by taking Environment Education from the current status it enjoys as a subject on the curriculum to a way of life. This feat requires that the existing myopic attitudes and lackadaisical mindsets be phased out and steadily replaced by a positive outlook, a committed approach, a focused plan and a phenomenal end to the existing polluting practices in order to usher in a Green Evolution. These objectives are what the RIPPLE model attempts to achieve. It is based on the 'Ripple Effect' which propounds that ripples expand across the water when an object is dropped into it, thereby suggesting that an effect which originates at a focal point can be transmitted outwards incrementally. This effect is known to have found application even in fields like Sociology where social interactions can affect situations not directly related to the initial interaction, and in charitable activities where information can be disseminated and passed from community to community to broaden its impact (Wikipedia, 2020). The significance of the model lies in that the positive influence of an event or activity can be experienced far beyond its immediate location. The designing and use of this model is the productive outcome of the quest to mould student-teachers into Green Warriors. Empowering each of them as environmental stewards would have far-reaching effects as they would sow green thoughts and ambitions in the multitudes of students they encounter through the years.

## OBJECTIVES OF THE PRACTICE

- To sensitise student-teachers to their role in Environmental Stewardship
- To transform the student fraternity in schools and colleges into agents of change
- To add a creative dimension to the existing eco-friendly practices
- To alert society to the threat of environmental degradation
- To actively engage and involve every member of community to walk the green talk
- To provide a forum for networking between various stakeholders and usher in a Green Evolution

## THE PRACTICE

The syntax of the **RIPPLE** model has been described below using the acronym *RIPPLE*:

- **Phase 1: *Research* for a *Relevant* theme**

  This is the primary and most important phase of the model as it determines the extent and reach of the project in question. Hence it is but appropriate that issues of social, civic or environmental concern be considered for execution of the model. The theme selection should also relate to the context of the times we live in as well as focus on the immediate needs of local community and global perspectives at large. In this regard the 2 projects undertaken by St. Teresa's Institute of Education were:

- **The Go-Green with Tetrapak Campaign:** This was launched to mark the Sesquicentennial celebrations of the organization in collaboration with the NGO RUR, Sahakari Bhandar and Reliance Industries Pvt. Ltd. The endeavor was undertaken as a green step towards implementing the 3R formula of reduce-reuse-recycle. Over the years there has been a steady increase in the popularity and widespread use of tetrapak cartons for packaging foods and beverages. An indiscriminate disposal of these containers could pose a threat in terms of contributing to environmental pollution. The Go-Green with Tetrapak Campaign aimed at bringing about a mass awareness as to how judicious recycling of these cartons could not only cater to the challenge of waste management but

more importantly ensure a waste product being constructively fashioned into utility articles.

- **The Save Water-Safe-Water Initiative:** The uncertainty and changing trends in rainfall patterns over the past few years has brought with it the impending threat of a severe water crisis in our country. Water scarcity in India is anticipated to worsen as the overall population is expected to increase to 1.6 billion by year 2050. To avert serious implications of this calamity, St. Teresa's Institute of Education undertook the Save Water- Safe-Water Initiative which is a program run by the NGO SOSVA and aims at alerting and creating awareness among students about their role in water conservation through modules based on water crisis and its causes, water scarcity and techniques of water conservation such as rain water harvesting.

  The subsequent phases of the model have been explained keeping the Go-Green with Tetrapak Campaign as a reference point wherever needed.

- **Phase 2: *Inform* and *Involve* all the stakeholders**

  This phase is based on the rationale that the co-operation and support that the project will receive is directly proportional to the inclusion and engagement of every participating member. The modus operandi for this phase is represented by the acronym **IRON:**

- **I-Identify and Ideate:** It is essential to identify a core team of like-minded and committed representatives who would serve as contact and communication points through the execution of the project. These members would be responsible and spear-head the endeavor in their respective institutions. They must be assigned suitable roles for which total accountability will be expected of them. Ideation would mean inviting suggestions about the proposed project from them.
- **R-Rationalise and Reason**: It would involve explaining the logical basis of the project. This would serve to clarify any conflicting views and arrive at a mutual consensus to take the project ahead.
- **O- Orient and Outline:** This step involves orienting the core team to the specific objectives and expected outcomes of the activity in question. A road map of the project should then be arrived at.

- **N-Network and Navigate**: Based on the dictum," United we stand, divided we fall", a strong network would require that this core team serves as a nexus between the lead institution and their participating institutions, so as to convey periodic updates on the progress of the project. This is where the project would now make a head start, with the core team navigating, directing and leading the other stakeholders through the prescribed phases of the project.

  Just as the foundation of any construction stands firm once reinforced with iron beams, so also the **IRON** will of the participating members would ensure that the project would reach fruition and achieve the intended objectives.

- **Phase 3: *Plan* the *Particulars***

  Good organizational skills predetermine the progress and outcome of any venture. The various dimensions of planning can be summarized through the five **'W's'**:

- **What:** Detail the activity, the plan of action and the steps to be followed.
- **Who:** Decide on the stakeholders who will be an integral part of the project. This could range from the student fraternity, the underprivileged sections, women, senior citizens etc.
- **When:** Select a proper time frame to launch and conduct the activity to obtain an overwhelming response and whole-hearted participation of the stakeholders. For instance, if the endeavor involves schools and colleges, the vacations/examinations will have to be borne in mind. So also, if it involves society at large, seasonal hazards, festival months etc. cannot go unnoticed.
- **Where:** The exact location of conducting the activity has to be determined. The Go-Green with Tetrapak campaign was conducted within the campus itself in the first year and involved the staff and students of all 4 institutions located there. In the second year it was extended to 10 practice teaching schools in Mumbai where the student-teachers were placed for their internship programme thus widening its reach.
- **Why:** The goals of the project must be detailed specifying what would be the expected outcomes of the project in terms of making a difference to the environment and society at large.

- **Phase 4: *Phase* the *Plan* of action**

This dwells on the skill of Time Management. It requires foresight and a sense of vision to set time-bound targets which are realistic to prevent procrastination and dropping out. It is advisable to draw up a detailed weekly/monthly schedule highlighting dates of completion of certain tasks to ensure uniform standards across all participating sectors.

### The Go-Greeen with Tetrapak Campaign had the following stages

- **Stage 1:** The B.Ed student-teachers, 2 teacher representatives of the High School, Special School, Junior college as well as a 5 PTA representatives from each of the 4 institutions were first oriented to the tetrapak collection process by RUR. They comprised the core team.
- **Stage 2:** In the following week the B.Ed student-teachers served as Green Champions to orient the school students and teachers to the tetrapak collection drive.
- **Stage 3:** The B.Ed student-teachers oriented their housing societies and neighbourhoods to the cut-clean-flatten process for recycling used tetrapak cartons.
- **Stage 4:** The B.Ed student-teachers and faculty collected the tetrapaks from the 4 participating institutions and their neighbourhoods weekly, recycled, counted and submitted them to RUR.
- **Stage 5:** The 10,555 cartons collected in the first year were exchanged for a garden bench and tetrapak collection bin which were installed on the campus. Feedback was then gathered from all the stakeholders and analysed.
- **Phase 5: *Learn* and *Lead* by example**

  It is only by leading that one can truly inspire others. Actions speak louder than words. In this regard it is important to walk the talk and practice what you preach. It is imperative that every participating member irrespective of rank and title engages in the activity sincerely. It takes a Green Team to launch a Green Dream. It is an honor to mention that in the Go-Green with Tetrapak Campaign every member of the Institution learnt the art of recycling and was actively involved in collecting and processing used cartons.

- **Phase 6: *Evaluate* whether the objectives have been achieved and *Extend* the reach for the following year**

  Evaluation of the intended objectives is a must in any practical endeavor. It provides an unbiased view of the outcome of the project. Feedback from the stakeholders serves the purpose of inviting constructive criticism and invaluable suggestions for improvement which can overcome the odds encountered. Based on the success of the endeavor, and as implied by the 'Ripple Effect', the project can then be extended to a bigger group and wider location the next time it is launched so as to widen its reach. Figure 1 and Figure 2 summarise the feedback of 2018-2019 and 2019- 2020 respectively, received from the core team of representative stakeholders of the Go-Green with Tetrapak Campaign.

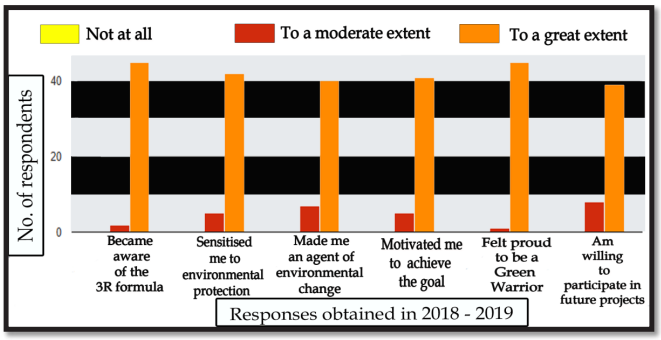


**Figure 1: Feedback for the year 2018 -2019**

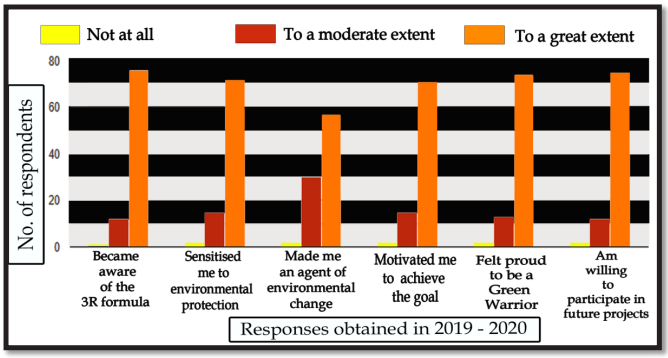


**Figure 2: Feedback for the year 2019 -2020**

Thus it is evident that the Go-Green with Tetrapak Campaign, served to achieve the objectives of the Cognitive, Affective and Psychomotor domains leading to the holistic development of teacher-trainees.

## IMPACT OF THE PRACTICE

- **Propagating Environmental values:** The model helped each student-teacher to function as a ripple and be instrumental in spreading environmental consciousness by sensitizing society to its role in environmental stewardship. The RIPPLE model can be employed to promote civic and social awareness too.
- **Developing organizational and leadership skills:** In serving as Green Champions the student-teachers developed a sense of responsibility and accountability to take the project from the status of a plan to reality. They mastered the skills of setting objectives, scheduling tasks, monitoring progress, making decisions, implementing constructive suggestions, time management and networking effectively and efficiently.
- **Empowering students to be agents of change:** The model proved that education is not only restricted to the classroom and the honing of intellectual skills but rather should help students to heed the needs of the world they live in by transcending all barriers and boundaries to live the education they receive.
- **Creating waves of awareness regarding a worthy cause:** The very nature of the model reasserts the fact that a change in thinking originating at a focal point can bring about a mass transformation in the mindsets and attitudes of the people at large. This is justified by the fact that the total of 10,555 used tetrapak cartons collected in the 1st year of the project increased to an all-time high of 15,471 cartons in the 2nd year earning the Institution the title of the **Highest Performing Spoke** in Mumbai for the year 2020.

## CONCLUSION

Change is the order of the day and the need of the hour. The optimal way to usher in this change would be by empowering student-teachers to create waves of progressive social transformation by each being a ripple themselves. Well into its third year of institutionalising the RIPPLE model, the Institution has now collaborated with the eArth

Samvarta Foundation (eSF) for the PhoneShaala project by eSF and KDC to cater to underprivileged children across the country by striving towards the goal of **'Education for all through a Toll-free call'.**

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# 7

# A Study on the Perceived Usefulness of Google Classrooms

*Dr. Cerena Aurin D'cunha**

**Abstract**

Nowadays, there are a lot of online learning platforms. New technologies are developed to make learning process easier. One of the examples of online learning platform is Google Classroom. The purpose of this research is to identify student-teachers' responses on the use of Google Classroom. The population of the research were the students of teacher-education. The method of this study is mixed method research. The data was analyzed by using question-wise analysis and means. The result indicated that student-teacherrs feel Google Classroom is useful and they are satisfied with Google Classroom as an online learning tool.

***Keywords:*** Google Classroom, Online Learning, Student-teachers

Nowadays, incorporating technology or ICT can make students control their learning and also engages them more in class. Many people believe that ICT makes learning process enjoyable and interesting, but learning using technology is one of the new challenges in higher education because many teachers struggle to integrate it for various reasons. But implementing classroom technology is necessary because it can aid students to get ready for the future.

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There are many online social learning environments and educational tools that are accessible for both students as well as teachers. Google launched an e-learning tool named Google Classroom. Google Classroom is a blended learning platform with interesting and simple features. Online learning can assist students in numerous ways, particularly when they have social anxiety; it can be a respite because they can without restraint ask and comment with other students. Technology affects students in learning. It can sustain change which is very fundamental. The implementation of technology is needed, especially to improve students' performance. With the use of technology, students' performance is expected to be more proficient and effective.

Due to the need of the hour, all teaching and courses were shifted to the online means. The use of Google Classroom should to be especially highlighted here. Based on informal interviews with some students of the teacher-education course, some of them affirmed that online learning affected their performance. When students have online task submission with certain deadline, they will do the task maximally and they also feel challenged. Therefore, the researcher was interested to identify student-teacher's responses within an online learning environment, especially on the use of Google Classroom.

Thus the researcher decided to conduct a study on **'The Perceived Usefulness of Google Classrooms'**

## DEFINITION OF GOOGLE CLASSROOM

Google Classroom is a tool which facilitates students and teacher collaboration; also teacher can create and distribute assignments for students in an online classroom for free (Beal, 2017). It makes teachers simply build groups to share assignments and announcements. Google Classroom can be a tool that makes learners become active participants. Nagele (2017) said, teachers can create active lessons which are student-centered, collaborative, and unforgettable just through Google Classroom, because it provides easy-to-use learning features with students of all categories able to cooperate.

### Statement of the Problem

'A Study on the Perceived Usefulness of Google Classrooms.'

## OBJECTIVES OF THE STUDY

1. To identify student-teacher's responses on the usefulness of Google Classroom based on perceived ease of access, perceived usefulness and perceived satisfaction.
2. To compare between the perceived ease of access, perceived usefulness and perceived satisfaction in case of Google Classroom.

### Design of the Study

The present study is mixed method research. Quantitative data includes close-ended information to measure perceived ease of access, perceived usefulness and perceived satisfaction in case of Google Classroom. Qualitative data consists of open-ended questions and interviews. The data was analyzed by using question-wise analysis and means.

### Sample: Its Size and Nature

The data were collected from 92 B.Ed teacher trainees from the teacher education college affiliated to the University of Mumbai and situated in Greater Mumbai.

### Tools Used in the Present Study

The researcher has made use of a self constructed tool to identify the perceived usefulness of Google Classrooms.

### Significance of the study

The results of this research aim to give contribution to other researchers and the researcher herself, as follows:

This research may provide a base for further research concerning student self-efficacy and motivation on the use of Google Classroom in the learning process. It can help the students to express their feelings by far while studying using Google Classroom as a learning tool. This study would be beneficial to provide other teachers with a reference to choose suitable tool as e-learning for teaching.

### Findings of the Study

The questionnaire pertained to four parts viz. perceived ease of access, perceived usefulness and perceived satisfaction and open ended questions/interview on the usefulness of Google Classroom.

## Finding of Each Part of the Questionnaire

**Objective 1:** To identify student-teacher's responses on the usefulness of Google Classroom based on perceived ease of access, perceived usefulness and perceived satisfaction.

### I Perceived Ease of Access

1. Signing on to the Google Classroom and navigating the system is easy.

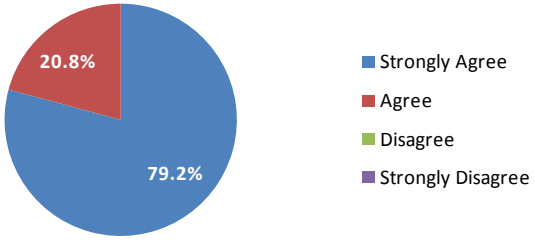


**Figure 1**

**Interpretation:** The figure shows that 79.2% student-teachers strongly agree and 20.8% student-teachers agree that signing on to the Google Classrooms and navigating the system is easy.

2. Receiving and submitting assignments and quizzes is made simple using Google Classroom

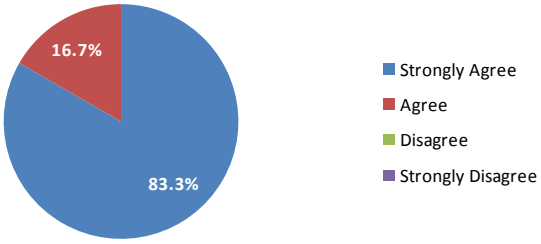


**Figure 2**

**Interpretation:** The figure shows that 83.3% student-teachers strongly agree and 16.7% student-teachers agree that receiving and submitting assignments and quizzes is made simple using Google Classroom.

**3.** Google Classrooms allows trouble-free access to course materials like ppts, videos, study material etc.

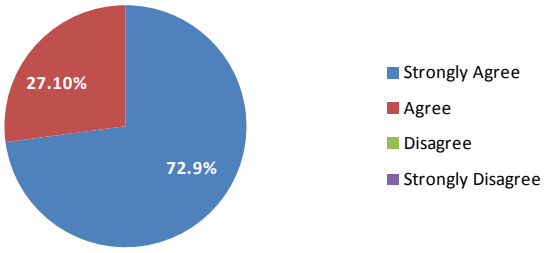


**Figure 3**

**Interpretation:** The figure shows that 83.3% student-teachers strongly agree and 16.7% student-teachers agree that access to course materials like ppts, videos, study material etc. is trouble-free in Google Classroom.

## Conclusion

The figures 1, 2 and 3 show the data of ease of access of Google Classroom. The highest scores are from question number 2 where 83.3% strongly agree and 16.7% agree to the question that receiving and submitting assignments and quizzes is made simple using Google Classroom.

Thus, from the figures 1, 2, and 3, it can be concluded that the student-teachers feel signing on to the Google Classroom, receiving and submitting assignments and quizzes, access to course materials like ppts, videos, study material etc. is easy in Google Classroom.

## II Perceived Usefulness

**4.** Google classroom is an excellent medium for social interaction.

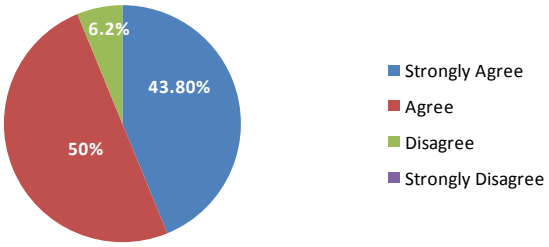


**Figure 4**

**Interpretation:** The figure shows that 43.80% student-teachers strongly agree 50% student-teachers agree and 6.2% student-teachers disagree that Google classroom is an excellent medium for social interaction.

5. Google classroom helps me to submit assignments and quizzes on time.

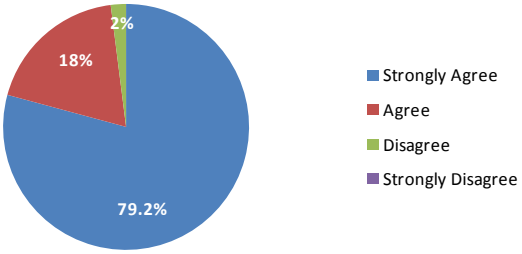


**Figure 5**

**Interpretation:** The figure shows that 79.2% student-teachers strongly agree 18% student-teachers agree and 2% student-teachers disagree that Google classroom helps them to submit assignments and quizzes on time.

6. The scores (marks) obtained on submission of assignment and quizzes in Google classroom helps in monitoring my performance and understanding the current topic discussed.

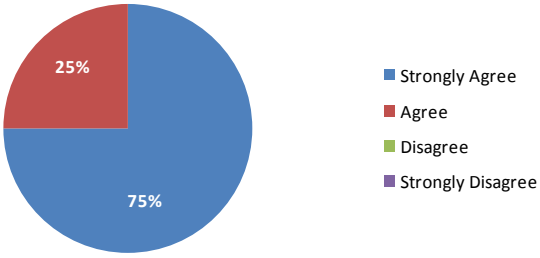


**Figure 6**

**Interpretation:** The figure shows that 75% student-teachers strongly agree 25% student-teachers agree that the scores (marks) obtained on submission of assignment and quizzes in Google classroom helps in monitoring their performance and understanding the current topic discussed.

## Conclusion

The figures 4, 5 and 6 show the data for perceived usefulness of Google Classroom. The highest scores are from question number 5 where 79.2% student-teachers strongly agree 18% student-teachers agree and 2% student-teachers disagree that Google classroom helps them to submit assignments and quizzes on time. It can be concluded that student-teachers feel Google Classroom has helped them to submit assignment on time because there is deadline in Google Classroom.

Thus, from the figures 4, 5, and 6, it can be concluded that the student-teachers feel Google classroom is an excellent medium for social interaction, it helps them to submit assignments and quizzes on time and the scores (marks) obtained on submission of assignment and quizzes in Google classroom helps in monitoring their performance and understanding the current topic discussed. Thus the Google classroom has been perceived as highly useful by majority of the student-teachers.

## II Perceived Satisfaction

**7.** I would recommend the use of Google Classroom for transacting the curriculum.

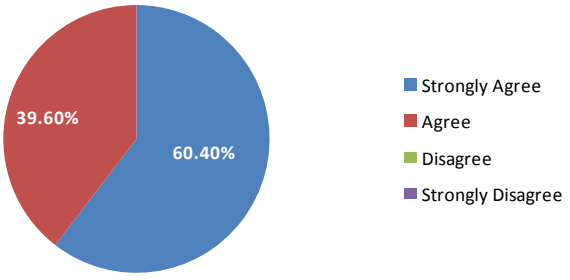


**Figure 7**

**Interpretation:** The figure shows that 60.40% student-teachers strongly agree 39.60% student-teachers agree that they would recommend the use of Google Classroom for transacting the curriculum.

**8.** Google classroom is my first choice in active learning compare to other e-learning methods.

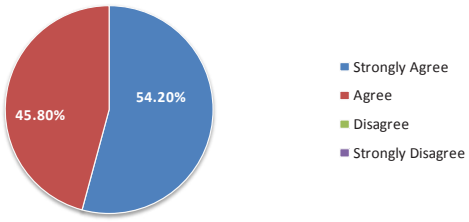


**Figure 8**

**Interpretation:** The figure shows that 54.20% student-teachers strongly agree 45.80% student-teachers agree that Google classroom is their first choice in active learning compare to other e-learning methods.

**9.** I like the Google Classroom as a learning initiative and motivation booster.

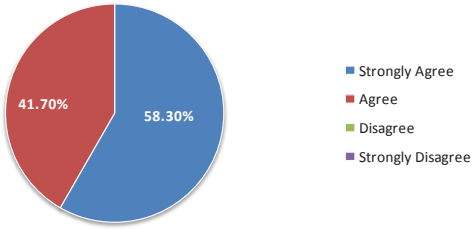


**Figure 9**

**Interpretation:** The figure shows that 58.30% student-teachers strongly agree 41.70% student-teachers agree that they like the Google Classroom as a learning initiative and motivation booster.

## Conclusion

The figures 7, 8 and 9 show the data for Perceived Satisfaction of Google Classroom. The highest scores are from question number 7. 60.40% student-teachers strongly agree and 39.60% student-teachers agree that they would recommend the use of Google Classroom for transacting the curriculum.

It can be concluded that student-teachers feel Google Classroom has helped them to transact their class curriculum well and hence they would like to recommend the use of Google classroom for other subjects too.

Thus, from the figures 7, 8, and 9, it can be concluded that the student-teachers would recommend the use of Google Classroom for transacting the curriculum, for majority student-teachers it is the first choice in active learning compare to other e-learning methods and they like the Google Classroom as a learning initiative and motivation booster. Thus it can be concluded that the student-teachers feel that the Google Classroom is useful in learning process and they feel satisfied with it.

## IV Student responses to open ended questions and interview based on the usefulness of Google Classroom

Following are the opinions of the student-teachers about the usefulness of Google Classrooms:

### STUDENT OPINION ABOUT ACCESSIBILITY

Student-teachers in the open ended questions and interviews appreciated the accessibility and simplicity of the Google classroom. Students feel that navigation is quite easy and hassle free while using Google Classrooms and all uploaded material is available on one platform. They can join the class by using the class code from anywhere and at anytime. Another perk of Google Classroom is that it can be accessed via a computer or an android phone, thus making it very user friendly.

### STUDENT OPINION ABOUT ASSESSMENT

The reminders about the upcoming assignments and quizzes were found useful as this feature enabled the students to remain up to date in submissions and ensured punctuality. Also submission of assignments is made very student friendly on the Google Classroom platform. Student-teachers appreciated the marking system and quick feedback available using Google forms.

### STUDENT OPINION ABOUT AVAILABILITY OF MATERIAL

Most of the students-teachers liked that all study material was available in one place, it can be organized very well and the work gets recorded and can be accessed at any time. Student-teachers also appreciated the fact that all study material, videos and assignments submitted on the Google classroom gets stored in the cloud storage,

and hence there is very little chance of losing the data. Also, they found receiving notifications each time the teacher uploads something very useful.

The student-teachers appreciated the fact that Google classroom supports upload all the study related documents in various formats such as pdf, ppt, sheets, forms, videos, etc which can be accessible at anytime, without a need to download it every time hence saving the storage space.

## USES FROM THE POINT OF VIEW OF TEACHERS

Student-teachers also felt that Google Classroom is good medium for the students, to interact with their teacher. It is an excellent interface that accommodates different types of materials to be posted and is useful for reaching out to a large class. Student-teachers feel that it is a very good tool for teaching online. It enables the teacher to know about the progress of every student by conducting online quizzes or assignments. The teacher can easily track the progress of her students and can keep a track of individual submissions and notify the defaulters. Also, receiving and uploading of study material and assignments and having online classes is aided by Google Classroom and thus it is a good e-learning platform.

**Objective 2**. To compare between the perceived ease of access, perceived usefulness and perceived satisfaction in case of Google Classroom.

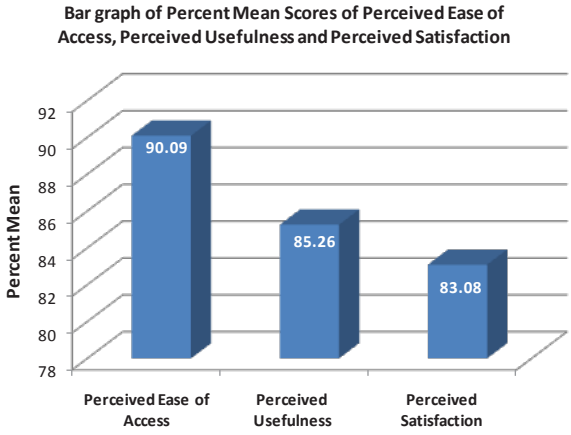


**Figure 10**

### Interpretation

The Figure 10 shows that the Percent mean of Perceived Ease of Access, Perceived Usefulness and Perceived Satisfaction is 90.09, 85.26 and 83.08 respectively.

## CONCLUSION

The magnitude of percent mean scores for Perceived Ease of Access, Perceived Usefulness and Perceived Satisfaction are substantial. Also student-teachers have rated the perceived ease of access higher than perceived Usefulness and Perceived Satisfaction. Thus student-teachers find the platform of Google classroom quite easy to access, useful and effective.

To sum up, the result on the of part Ease of Access shows that most student-teachers do not find any difficulty in operating Google Classroom and Google Classroom is easy to use as a learning tool.

The part on Perceived Usefulness shows that most students feel that Google Classroom is useful in their learning process. It also means that students benefit when using Google Classroom. Student-teachers said that it can increase the effectiveness in completing the tasks assigned by the Faculty.

The part on Students' Satisfaction shows that most student-teachers feel satisfied with Google Classroom as a learning tool. Many student-techers feel satisfied with Google Classroom because of its effectiveness and efficiency.

Hence Google Classroom has proved to be a very useful and efficient e-learning platform beneficial both to the students and the teachers.

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# 8

# Measuring Organizational Effectiveness

*Dr. Cindrella D'Mello**

**Abstract**

What makes an organization effective? How do we determine if a college is doing a good job? If all the students get jobs upon graduation, does that tell us the college is effective? The early approach to organizational effectiveness -which probably lasted through the 1950s-was innocently simple. Effectiveness was defined as the degree to which an organization realized its goals. Hidden in this definition, however, were many ambiguities that severely curtailed both research on the subject and practicing managers' ability to grasp and use the concept. Organizational effectiveness is a perception of how effective an organization is in attaining the end results the organizations maps to produce.

***Keywords:*** Organizational effectiveness, end results.

## INTRODUCTION

Organizations perform at different levels of effectiveness. The growth of the organization per year is indicates whether they are on a climb or decline. How do we determine if a college is doing a good job? If all the students get jobs upon graduation, does that tell us the college is effective? Or should we be looking at the percentage increase or decrease in freshmen applications, a statistical report of the number of books checked out from the library by students during the past

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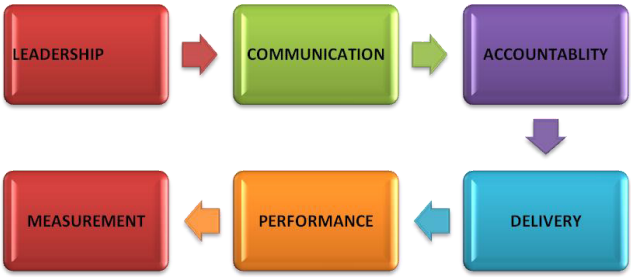
academic year, a survey asking seniors what the thought of their college experience, the number of publications by faculty members, awards won by graduates, or the average salary of former students twenty years after graduation? These examples are meant to introduce the problems inherent in defining and measuring organizational effectiveness (OE).

## IMPORTANCE OF ORGANIZATIONAL EFFECTIVENESSS

What makes an organization effective? That answer is the proper organization structure! The early approach to organizational effectiveness -which probably lasted through the 1950s-was innocently simple. Effectiveness was defined as the degree to which an organization realized its goals. Hidden in this definition, however, were many ambiguities that severely curtailed both research on the subject and practicing managers' ability to grasp and use the concept. For example: Whose goals? Short-term goals or long-term goals? The organization's official goals or actual goals? Organizational effectiveness is a perception of how effective an organization is in attaining the end results the organizations maps to produce.

## STEPS OF ORGANIZATIONAL EFFECTIVENESS




## THE GOAL-ATTAINMENT APPROACH

An organization is produced intentionally to achieve particular goals. Goal attainment is in all probability the extensively used criterion of effectiveness. The goal-attainment approach affirms that an organization's effectiveness must be evaluated in terms of the accomplishment of ends rather than ways. It is the bottom line that counts. well-liked goal-attainment criteria contains profit maximization, bringing the enemy to surrender, winning the basketball game, restoring patients to good

health, and the like. Their common denominator is that they consider the ends to which the organization was created to achieve.

The goal-attainment approach believes that organizations are purposeful, balanced, goal-seeking entities. Successful goal achievement becomes an right measure of effectiveness. But the use of goals implies other assumptions that must be valid it goal accomplishment is to be a viable measure. First, organizations must have ultimate goals. Second, these goals must be identified and defined well enough to be understood. Third, these goals must be few enough to be manageable. Fourth, there must be general consensus or agreement on these goals. Finally, progress toward these goals must be measurable.

This approach is probably explicit in management by objectives (MBO).MBO is a well-known philosophy of management that assesses an organization and its members by how well they achieve specific goals that superiors and subordinates have jointly established. Tangible, verifiable, and measurable goals are developed. The conditions under which they are accomplished is specified. The degree to which each goal must be satisfied is also specified Actual performance is then measured and compared with the goals. Because either an organization accomplishes the specific tasks that it is supposed to or it does not, MBO represents the ultimate is a goal-oriented approach to effectiveness.

## THE STRATEGIC-CONSTITUENCIES APPROACH

Modern perspective on organizational effectiveness is the strategic-constituencies approach. It suggests that an effective organization is one that persuades the demands of those constituencies in its setting from whom it necessitates support for its continued survival. This approach is similar to the systems view, yet it has a different emphasis. Both consider interdependencies, but the strategic constituencies view is not concerned with the organization's entire environment. It seeks to calm down only those in the environment who can threaten the organization's survival. In this context, most public universities must consider effectiveness in terms of acquiring students but need not be concerned with potential employers of their graduates because the survival of these universities is not influenced by whether their graduates get jobs.

On the other hand, private universities, which charge considerably more than their public counterparts, do spend a great deal of time and money in attempting to Place their graduates. When parents spend a million rupees to get their son or daughter a bachelor's degree, they expect it to lead to a job or accepted graduate school. If this does not occur it will increasingly difficult for the private university to get freshmen applications.

## CONCLUSION

The goal-attainment approach views an organization as planned, coherent, and goal-seeking body whereas strategic-constituencies approach views organizations very differently. They are assumed to be political domes where vested interests fight for power over resources. In such a context, organizational effectiveness becomes an evaluation of how winning the organization has been at satisfying those important constituencies, upon whom the continued existence of the organization depends.

The 'political arena' metaphor further assumes the organization has a number of constituencies, with different degrees of power, each trying to satisfy its demands. But each constituency also has a unique set of values, so it is unlikely that their preferences will be in agreement. For example, a study of the major tobacco companies found that the public evaluated the companies in terms of not harming smokers' health, while stockholders evaluated the firms' ability to produce cigarettes efficiently and profitably. Not surprisingly-using such diverse criteria-the, public rated the tobacco firms as ineffective, and stockholders rated the same firms as highly effective.

Finally, the strategic-constituencies approach believes that managers trail a number of goals and that the goals chosen symbolizes a reply to those interest groups which control the resources essential for the organization to continue to exist. No goal which is set by the management is value free.

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# 9

# Cloud Drive; Smart Space in Learning Ecosystem

***Dr. Mabel Pimenta****

**Abstract**

Cloud Drive is a new and easy way to store, edit and share all kinds of data. It is a web storage application. It is not necessary to explicitly back up computer systems. It automatically backs up data in real-time. It eliminates the need to carry external hard-drives to other locations. The data is stored onto the cloud and can be easily accessed via the internet. One can access data on the move. In this paper, we come across five Cloud Storage Service Providers: Amazon, Google, Apple, Microsoft, Dropbox.

## INTRODUCTION

In this pandemic period of Covid 19, all the schools and colleges have created their own Learning Ecosystems. In the ecosystem students are actively using technology tools for inquiry and exploring new apps for learning. The students and teachers interact within the ecosystem to construct learning experiences. In Learning Ecosystem, teachers nurture a community of the students. They know their interest in learning, strengths and challenges in digital classroom. The teachers play roles of learner and explorer along with content expert. Emphasis of teachers need to be on encouraging the students to follow net related etiquettes and make responsible use of technology resources. Students need access

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to multimedia content, that includes various resources and documents in learning ecosystem. When the students and teachers want to access content, they can use stored data onto the cloud.

Our data is generally scattered in different locations like Computer, Smartphone, Tablet PC, external disks, Etc. Cloud Drive is a new and easy way to store, edit and share all kinds of data. It brings all data together in one location and provides access to data via the internet. One can share documents, movies and photos. Cloud Drive handles all types of files like documents, spreadsheets, pictures, Etc. It enables stream music and movies to iPhone or Android phones. Users can also upload images directly from a phone or a tablet computer. The data will then be instantly available to anyone and choose to share it.

As illustrated in the above example, data can be uploaded via iMac on the cloud drive. They can be accessed and synchronized via desktop with a Windows O.S, laptop, and smartphone.

## BIG COMPANIES OFFERING CLOUD DRIVE

Many companies offer Cloud Storage. The writer would focus on the following companies:

- **Amazon-** Largest online retail store
- **Google-** Online search engine
- **Apple -** Mac products
- **Microsoft-** Windows Operating system
- **Dropbox-** Storing data in cloud


## AMAZON DRIVE

Amazon was the first company to start up with the concept of Cloud drive.

- It offers up to 5 GB of free storage and some more with paid plans. Upload anything with no limit on file size and access documents with an internet connection via any PC or handheld device.
- Unique and appealing focus on media- One can store existing music library in Amazon Cloud Drive but also any mp3 you purchase in future.
- User friendly interface-new users are comfortable to use Amazon Drive
- Help and support- The users are entitled to the company's full range of help and support options. They would revert and answer your query in 24 hours.
- **Link: www.amazon.com/clouddrive**

## GOOGLE DRIVE

Google released on April 24, 2012, Google Drive, is a file storage and synchronization service

- 5GB of free storage is provided to the users.
- Google has integrated into its existing solutions- Users of Gmail can send bulky attachments through Drive. It is possible for Google Docs users to collaborate on documents from within the platform. Google+ users can find their videos and visuals in Drive instantly available on the social network. Google is big on integration, and once again it has proved with Drive.

- Third-party apps play a crucial role- Google is not establishing a walled garden with Drive. The company says that a host of third-party application suppliers will support the service, which will allow the users to store and share content across multiple platforms. In the online world can transfer data from one service to another is increasingly appealing to users. It is a welcome move by Google and its partners.
- **Link: www.drive.google.com**


## APPLE ICLOUD

The entire logo conveys the meaning to the users. iCloud is yet another cloud storage and cloud computing service from Apple Inc. announced on June 6, 2011. The service allows users to store data such as music and iOS applications on remote computer servers for download to multiple devices

- **Acts as a data syncing centre- For** email, contacts, calendars, bookmarks, notes, reminders (to-do lists), iWork documents, and other data. The service also allows users to wirelessly back-up their iOS devices to iCloud instead of manually doing so using iTunes.
- **iOS device back-up and restore-** iCloud allows users the option to back up iOS devices online (users can choose to continue to back-up to their computers), thus they can be restored from online back-up without connecting to a computer
- **Photo Stream -** Photo Stream is a service supplied with the basic iCloud service. When a photo is taken on a device with Photo Stream enabled, it is uploaded automatically to the iCloud servers; from there, it is pushed automatically to the rest of the user's registered devices. The service is also integrated with Apple TV, allowing users to view their recent photos wirelessly on their HDTV.

- **5 GB of free storage of data is given on Apple iCloud**
- **Link: www.icloud.com**

## MICROSOFT SKYDRIVE

On Sky Drive users With Office Web Apps can upload, create, edit, and share Microsoft Office documents directly within a Web browser. Users can create, view and edit Word, Excel, Power point and One note users can co-author Excel directly within the web browser, and One Note documents with another web user. Users can view the version history of Office documents stored on SkyDrive.

- **The service offers free storage 7 GB**
- **Built using HTML-5 technology**

**Integration with Microsoft Office-** Users of the latest versions of Microsoft Office (for Microsoft Windows and OS X) can use all the desktop applications to edit the section of documents stored on Sky Drive simultaneously. when users save the document, changes are synchronized, and where there are conflicts, the saving user is given the option to choose which version to keep. It is a suite known as collaborative real time editing. It enables multiple users to use combinations of desktop applications and web apps to edit a document.

**Document embedding-** Sky Drive enables users to embed their office documents like Word, Excel and Power Point onto other web pages. These embedded documents allow anyone visiting these web pages to interact with it, for example- to browse an embedded Power Point slide show or perform calculations within an embedded Excel spreadsheet.

**Download as. zip file -4GB or 65,000 files-** Users can download Entire folders as a single. zip file with SkyDrive. For a single download, there is a limit of 4GB or 65,000 files (whichever comes first).

- **Link: www.skydrive.com**

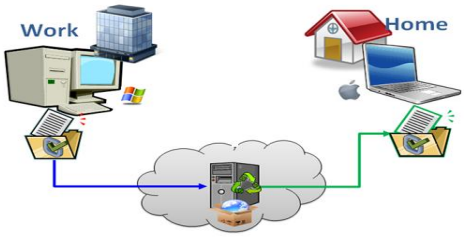

## DROPBOX

To write the Dropbox server and desktop client software, Python is used. The service offers 2 GB of free storage. Its focus is on synchronization and sharing. Files deleted from the Dropbox folder can be recovered from any of the synced computers, as it supports revision history.

- **Delta encoding-** Dropbox enables several users to edit and re-post files without overwriting versions, thus supports multi-user Version Control. The version history with an unlimited version called "Pack-Rat" available for purchase, is by default kept for 30 days. The version history is combined with the use of technology called delta coding. When a file in a user's Dropbox folder is changed, the Pieces of File that are changed when synchronising Dropbox only uploaded by Dropbox.
- **LANSync -** Allows computers on a local area network to securely download files locally from each other instead of always hitting the central servers
- **Link: www.dropbox.com**

## USES OF CLOUD

- **Data access –**You can access data anytime and from anywhere




- **Data Security-** Data security is a top priority for cloud service providers. It Involves data replication with multiple data centers through redundant dark fiber and the market's most secure firewalls. There are always at least 2 copies of the same data on different physical locations. If there is a crash in the main server room, a backup server will take over the operation very shortly.
- **Encrypt and password protect your data-** Cloud Drive can be set to automatically encrypt your data and you decide who should have access. Exchange of data between devices and Cloud Drive is secured via SSL connections. User can recover deleted files. Capacity of cloud is very high in terms of storage of data and it can be expanded as per the need. It provides auto back up. It is possible to share files and collaborate.
- **Mobile Apps:** We are now in the age of mobile computing. iPhone, iPad, Android, other smart phones & tablets are quickly taking the roles of laptop and netbook. It was said that number of mobile computing users will soon surpass that of desktop users. You need to check out whether the provider in interest has apps for your tablets and smart phones.
- **Support:** Not all people are tech savvy, and support is what makes providers different. Most providers offer knowledge base system and email support. Some providers have chat and phone support, but it is not free.
- **Free Cloud storage to consider:** JustCloud – Unlimited free cloud storage if you refer to friends. CX – Immediately get 10GB, no need to refer friends. Dropbox – super simple solution, immediately get 2GB, refer 32 friends to expand your Dropbox to 10GBz

## CHALLENGES IN USING CLOUD STORAGE

- Stable Internet Connectivity-it is essential to use data stored on the cloud.
- Misuse of credentials is possible while accessing data from the cloud.
- Client installation is mandatory- If we goto a place where we want to access data from Cloud Drive but don't have the Admin rights; we can't install the client and hence can't have an access to the data.
- Data/data packets can be sniffed- Since data is over the internet, data packets can be sniffed by an intruder.
- Pricing: You should also check the price of their paid plans too. Your data will grow over time, and you may one day need to upgrade to paid plan. Some providers offer larger free space up front, but if you want more space and buy a subscription, their price may be a little higher than that of other providers.

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# 10

# E-resources in Education for Quality Sustenance

*Dr. Reshma Rodrigues**

**Abstract**

In recent few years the more emphasis is on the quality of education. To reach to the set benchmarks educators are trying new methods of teaching, learning and evaluation. One such innovation in education is the integration of technology and ICT in teaching, learning and evaluation process. The exponential growth of the technology has led to use of e-resources in education. Various studies conducted on the same have proved the effectiveness of e-resources in education. The present study aimed at examining B.Ed. trainees' outlook towards e-resources in education. The researcher used descriptive method of causal comparison. The data was collected using self-prepared rating scale and then was analysed using descriptive analysis and the't' test. The findings of the study revealed positive outlook of B.Ed. trainees towards e-resources in education.

***Keywords:*** E-resources in Education, B.Ed. trainees

In today's era the entire educational system is experiencing a paradigm shift from quantity to quality. Now the ultimate objective of educators is to prepare students for their future by providing quality education. All stakeholders of education are looking for learners who

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can apply their knowledge and understanding to solve the problems, learners who are efficient in creating new knowledge rather producing the old one. Thus the role of educators has changed from knowledge imparter to knowledge facilitator where the child is kept at the center. To draw out best from a child, use of varied techniques, innovations and resources is inevitable for the teachers. Some of the recent innovations such as constructivism, collaborative and cooperative learning, differentiated teaching, learning and assessment are proving to be effective in raising the quality of teaching learning process and thus helping in the improvement of the quality of education. One of such novelty in education is use of technology. Use of technology in education is a great revolution and is proving its significance in quality development of a child. Therefore like all other fields, the field of education too is adopting and integrating the technological advancements. In the recent years the educational system has seen exponential growth with respect to the use of technology in the process of teaching, learning and evaluation. Use of e-resources in education is gaining the importance day by day. E-resources in education are the electronic resources such as e-books, e-journals, scholarly databases, OPAC, internet gateways and search engines, CD-ROMS, digital bulletin etc. These resources are easily available and accessible and covers all subjects. E-resources are easy to use and contains more information as compare to the physical resources.

Many studies have proved it importance in achieving the educational objectives. In this world of digital media and information the use of e-resources in education is an inseparable part of the educational system. Parthasarathy. R in his study 'Impact of e-resources and services on higher education and research' has discussed many advantages of using e-resources in education. Dr. Chetan Sharma in his study 'Use and Impact of E-Resources at Guru Gobind Singh Indraprastha University (India): A Case Study' has highlighted the preferences and importance of online resources among the teachers and research scholars. Anjana in her study Use of E-Resources in Higher Education: Advantages and Concerns has examined the advantages of e-resources in higher education and to identify the various concerns related to e-resources. Some of these mentioned studies too indicates the significance of e-resources in education. B.Ed. students who are taking their pre-service training

are constantly trained in various pedagogies of teaching and other relevant information related to it. At this stage educators needs to mold these students with respect to the use of e-resources in education. Proper training and exposure to the e-resources given at the beginning of their career helps them to step in the field with a positive attitude towards the e-resources. In the present study, the sample i.e. B.Ed. students were given training and exposure to the e-resources in education. Thus, this study tries to examine the outlook of B.Ed. students towards e-resources in education.

Statement of the problem: A study of B.Ed. trainees' outlook towards e-resources in education.

Aim of the study: To study B.Ed. trainees' outlook towards e-resources in education.

## VARIABLES OF THE STUDY

- Independent Variable: E-resources in education
- Dependent Variable: Outlook of B.Ed. trainees'

## OPERATIONAL DEFINITION OF THE VARIABLES

- E-resources in education: E-resources are defined as the electronic resources used by B.Ed. trainees in their studies for both the theory as well as practicum part of the course.
- Outlook of B.Ed. trainees': It is defined as B.Ed. students' point of view for e-resources in education.

## OBJECTIVES OF THE STUDY

- To study B.Ed. trainees' outlook towards e-resources in education w.r.t. to the need of using e-resources.
- To study B.Ed. trainees' outlook towards e-resources in education w.r.t. to the learning outcomes of using e-resources.
- To study B.Ed. trainees' outlook towards e-resources in education w.r.t. to the ease, access and availability of e-resources.
- To study B.Ed. trainees' outlook towards e-resources in education w.r.t. to the time spent by them on using e-resources.
- To study B.Ed. trainees' overall outlook towards e-resources in education.

## HYPOTHESES OF THE STUDY

- There is no significant difference in F.Y.B.Ed. and S.Y. B.Ed. trainees' outlook towards e-resources in education w.r.t. to the need of using e-resources.
- There is no significant difference in F.Y.B.Ed. and S.Y. B.Ed. trainees' outlook towards e-resources in education w.r.t. to the learning outcomes of using e-resources.
- There is no significant difference in F.Y.B.Ed. and S.Y. B.Ed. trainees' outlook towards e-resources in education w.r.t. to the ease, access and availability of e-resources.
- There is no significant difference in F.Y.B.Ed. and S.Y. B.Ed. trainees' outlook towards e-resources in education w.r.t. to the time spent by them on using e-resources.
- There is no significant difference in F.Y.B.Ed. and S.Y. B.Ed. trainees' overall outlook towards e-resources in education.

Procedure: The present study has used the descriptive method of causal comparative type as it has aimed at comparing F.Y.B.Ed and S.Y.B.Ed. trainees' outlook towards the e-resources in education. The present study has included 77 B.Ed. trainees out of which 48 were F.Y.B.Ed. and 29 were S.Y.B.Ed. students. The sample was selected using non-probability convenience sampling technique. Self-prepared rating scale was used by the researcher to collect the data. It had 26 statements. The rating scale was divided into 4 dimensions – the need, learning outcomes, ease, access and availability and the time spent on e-resources. This collected data was then analysed using the descriptive analysis techniques which included mean, median and mode and the inferential analysis technique't' test.

### Testing of hypotheses:

| Variable | Group | N | Mean | Median | Mode | t | P | LOS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.05 | 0.01 |
| Need | F.Y.B.Ed. | 48 | 22.29 | 22 | 21 | 0.3 | 0.77 | NS | Ns |
| | S.Y.B.Ed. | 29 | 22.1 | 21 | 21 | | | | |
| Learning outcomes | F.Y.B.Ed. | 48 | 27.47 | 27 | 27 | 0.26 | 0.79 | NS | NS |
| | S.Y.B.Ed. | 29 | 27.65 | 27 | 27 | | | | |

| Variable | Group | N | Mean | Median | Mode | t | P | LOS | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 0.05 | 0.01 |
| Ease, Access, Availability | F.Y.B.Ed. | 48 | 18.85 | 19 | 17 | 1.48 | 0.14 | NS | NS |
| | S.Y.B.Ed. | 29 | 18.17 | 18 | 18 | | | | |
| Time Spent | F.Y.B.Ed. | 48 | 5.97 | 6 | 6 | 1.03 | 0.31 | NS | NS |
| | S.Y.B.Ed. | 29 | 5.76 | 6 | 6 | | | | |
| Overall | F.Y.B.Ed. | 48 | 80.96 | 81 | 80 | 2.5 | 0.015 | S | Ns |
| | S.Y.B.Ed. | 29 | 76.79 | 75 | 75 | | | | |

### Interpretation of 'P'

The obtained values of 'P' for the difference between F.Y.B.Ed. and S.Y.B.Ed. students w.r.t. their outlook towards the e-resources in education for the need to use e-resources, learning outcomes of using e-resources, ease, access and availability of the e-resources and the time spent on e-resources are greater than 0.05. Hence the null hypotheses are accepted. Thus there is no significant difference between F.Y.B.Ed. and S.Y.B.Ed. students w.r.t. their outlook towards the e-resources in education for the need to use e-resources, learning outcomes of using e-resources, ease, access and availability of the e-resources and the time spent on e-resources.

The obtained value of 'P' for the difference between F.Y.B.Ed. and S.Y.B.Ed. students w.r.t. their overall outlook towards the e-resources in education is less than 0.05 but greater than 0.01. Hence the null hypothesis is accepted at 0.01 level of significance and is rejected at 0.05 level of significance. Thus at 0.05 level of significance there is no significant difference between F.Y.B.Ed. and S.Y.B.Ed. students w.r.t. their overall outlook towards the e-resources in education but at 0.05 level of significance there is significant difference between F.Y.B.Ed. and S.Y.B.Ed. students w.r.t. their overall outlook towards the e-resources in education.

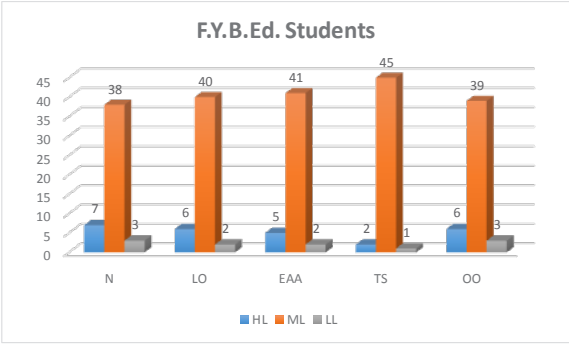
Graphical representation of the data:

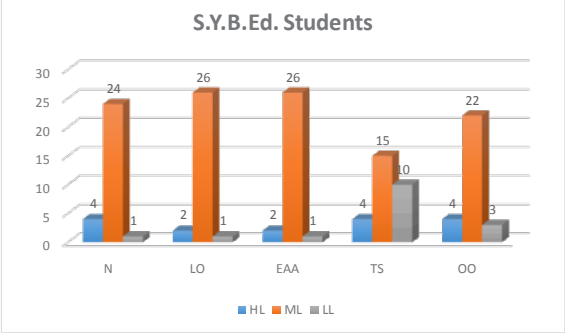
N – Need of using e-resources

LO – Learning outcomes of using e-resources

EAA – Ease, access and availability of e-resources

TS – Time spent by them on using e-resources
OO – Overall outlook towards e-resources in education
HL – High Level
ML – Moderate Level
LL – Low Level




Discussion: The statistical analysis given above revealed that both F.Y.B.Ed. and S.Y.B.Ed. students had same viewpoints w.r.t. the e-resources in education. The graphical representation given above gave the researcher an insight on students' perception for the e-resources in education. After comparing the graphs of F.Y.B.Ed. and S.Y.B.Ed. students, it was found that students of both the batches showed moderate level i.e. they were agree to the fact that e-resources in education are needed, they help educators in achieving better learning outcomes, they are easy to handle, easily accessible and available to most of the learners. The deviation was noticed in the dimension of time spent on e-resources by them. Here the researcher observed that the students

of year one were spending the time on e-resources everyday whereas in comparison to year one students, there was a drop in the time spent on e-resources by second year students. Thus, here the researcher felt the need of creating interest among B.Ed. students' w.r.t. e-resources in education so that as they enter the real world of teaching they will continue using e-resources. The last two statements of the rating scale asked for the data of e-resources which the trainees are aware of and the resources the trainees use actually. The collected data was positive and it proved students' awareness and usage of e-resources.

Conclusion: While conducting the present study the researcher has kept in mind only the advantages of e-resources in education. But like all other techniques, e-resources also have its' own concerns which one should keep in mind. To name a few it requires electricity, technology infrastructure, internet connectivity, it sometimes faces copyright problems etc. But looking at its' merits one should definitely agree that the use of e-resources in education is the need of an hour. Also the learners must be made aware of the vast variety of the e-resources which are available for education. This awareness will surely generate the curiosity in learners and will help them become better learners.

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# 11

# Learning Management Systems (LMS); E-Learning Resources; Outcome-Based

*M. Perumal**

**Abstract**

Transitioning from a classroom-based environment to an online learning environment is challenging in the best of circumstances. Like most initiatives, knowledge and preparation are the keys to success. But where does an organization start when pioneering this new approach to learning? In 2005, University Health Network (UHN) embraced this challenge by purchasing a Learning Management System (LMS) with the goal of integrating education into the daily lives of its' nursing staff. This article describes the process used to analyze needs and select a LMS. Readers will be provided with information about choosing and evaluating a LMS, lessons learned, and tips for organizations seeking to purchase a LMS in the future. This article is the second of a four-part series about e-learning.

Nowadays Learning Management Systems (LMS) are not restricted to distant uses. Nevertheless, the pedagogical expressiveness of designed courses is strongly dependent on the teacher's knowledge and expertise about the targeted platform. The funded GraphiT project aims to help teachers in focusing on the specification of pedagogically sound and technically executable learning designs. To this end, we propose to support teachers by providing an LMS-specific Visual Instructional Design Language

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(VIDL). This paper proposes a specific LMS- centered approach for raising the pedagogical expressiveness of its implicit learning design semantics. We discussed, in accordance to the activity theory, how the LMS low-level parameterizations could be abstracted in order to build higher- level building blocks. Based on the Moodle application, we present and illustrate our approach by formalising the abstract syntax of a Moodle-dedicated VIDL.

***Keywords:*** Learning Management Systems (LMS); E-learning; Management; Learning Analytics; Integrative Review—(LMS); LMS analysis and evaluation; human-computer interaction; software engineering; mobile learning.

## INTRODUCTION

**LMS –** LMS is Software that is used for publishing monitoring and delivering online courses like e-learning.

| | |
|---|---|
| LEARNING | - because you use it to deliver education courses |
| MANAGEMENT | -because it helps you organize these courses |
| SYSTEM | -because an LMS is a computer system |

A piece of software that manages, analyzes, and runs educational courses and training programs. Also included are student registration, curriculum management, skill &competency management and reporting features. Most LMS packages are web-based

E-learning is both cause and result of significant changes in the definition of education concept, as well as changes in the understanding of how it should be organized and managed ([Peters, 2003]). With the e-learning advance, educational institutions managers started to deal with different activities, requiring the development of new procedures and finding alternatives to address emerging challenges that go beyond educational issues. An e-learning system consists of all components and processes that operate when distance learning and teaching occurs (Rosenberg, 2001).

**E-Learning Definition:** E-Learning was defined as an electronic learning media to support teaching and learning process. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. E-learning can also

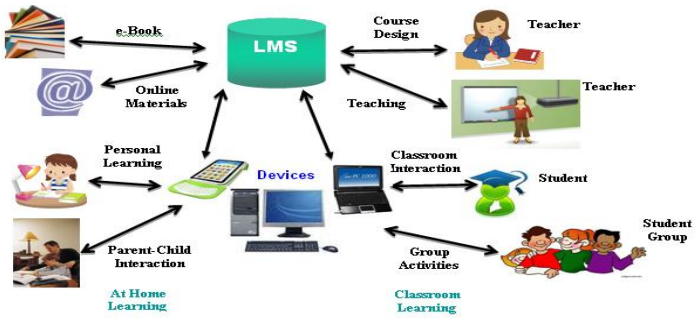
be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times. Earlier, it was not accepted wholeheartedly as it was assumed that this system lacked the human element required in learning.

## WHAT IS LEARNING MANAGEMENT SYSTEM?

The term "Learning Management System" (LMS) makes an appearance quite frequently in eLearning articles, tip sheets, and beginner's guides. As such, it's important to get a good grasp on what a Learning Management System entails and the benefits it brings. Is a Learning Management System really worth the resources? Or will a more manual approach suffice? What are the advantages of investing in an LMS, and which features should you look for? Are there different hosting and pricing plans you need to keep in mind? This article will address all these questions and give you the inside scoop on Learning Management Systems so that you can decide whether a new LMS is right for your online training program or not.

- LMSs are focused on online learning delivery but support a range of uses, acting as platform for fully online courses, as well as several hybrid forms, such as blended learning and flipped classrooms.
- LMSs can be complemented by other learning technologies such as a training management system to manage instructor-led training or A Learning Record Store to store and track learning data.

## OPENSOURCE LMS



- LMS is flexible and can be developed keeping in minds specific needs of the training providing organization.
- It is free to use without any additional cost like hardware costs.
- Open Source Management System is of great significant to universities, schools, and other educational institutions.

## RECENT LEARNING MANAGEMENT SYSTEM IN EDUCATION (RLMSE)

**LMS** Define as"a **Software application** for the administration, documentations, tracking, reporting and delivery of **Education courses**, **training programs** or learning and development programs." If we look at the **L.M.S. defintion** mentioned, there are a couple of elements involved **administration**, documentation, **tracking** and reporting and delivery. Nearpord, our **world class L.M.S. platform** exceed the requirements of this definition, and so we are so proud to share you our **L.M.S. Nearpod** all about. A L.M.S is a software platform for **delivering learning meterial** online….. most learning takes place outside **formal educational spaces**, Where **people talk** to each other and get a chance try out knowledge and skills themselves.

Essentially, all **L.M.S.** learning is actually E-Learning,but not all E-Learning is done in an L.M.S. If you are looking for a broader, **advance** and fully **functional L.M.S.** for your children's quality education even they are staying at home and continue schooling keeping them safe from our **current pandamic**. This **platform** is our response at this very time where in the health, Education and safety are our very **most concern**. If so you have come to **right place.** Our **L.M.S. platform** is fully recognized by more than thousand of universities and **higher educations institutions** globally. So contact us now for an Online demo and experience our L.M.S. regardless of your **current location** and situation as long as you have a gadget with an **internet access**. We look forward to be a help to your **business operation** and serve your students with our highest standard quality education through our **L.M.S. software**, a cloud based with no need to **download** and install and **can be access** anytime, anywere in gadget.

### E-Learning, Web-based Learning

E-Learning is mostly associated with activities involving computers and interactive networks simultaneously. The Computer does not need to be the central element of the activity or provide learning content.

It is associated with learning materials delivered in a web browser, including when the materials delivered in a web browser including when the materials are packaged on CD-ROM or other media

## DESCRIPTION

Tutor is a complete, feature-packed and robust WordPress LMS plugin to create & sell courses online easily. All the features of this learning management system hits all the checkpoints for a full-fledged online course marketplace. You can create challenging and fun quizzes, interactive lessons, powerful reports and stats making Tutor potentially the best free WordPress LMS plugin. Manage, administer and monetize your education, online school, and online courses without having to write a single line of code.

## BENEFITS OF THE LEARNING MANAGEMENT SYSTEM

1. **Organizations of content**: Keeps all the important data and materials stored in one location. So that learners wouldn't confused and finding what material is located where.
2. **Learner Friendly**: LMS learner from these because they can access materials online what's more is most elements now supports mobile and tablet view making it more user friendly.
3. **Tracking of Progress:** With the help of LMS instructors get easily tracked in progress a learner is doing in a course that's why instructor can identify areas of the course where the learners are experiencing difficulties are areas where it seems to be easy for the learners and after knowing this they can apply appropriate modifications to course needs for cost and time efficient.
4. **Cost and Time Efficient:** It helps you save money that he would have spent on printing materials transportation fare and going to actual classes and in hiring instructors in other words you.
5. Online classess anytime anywere, 24/7 Access To Online course, Learn at your own pace, Balance Eduction with work,

## LEARNING MANAGEMENT SYSTEMS (LMS)

Advantages of an LMS: Some of the main advantages from the students' as well as instructors' point of view are summarized in table 1 given below:

**Table : Advantages of an LMS**

| SL. NO. | Advantages for students | Advantages for Teachers |
|---|---|---|
| 1. | Single spot availability of all course related information | Convenience in providing additional resources to students besides class lectures. |
| 2. | Easy access to information – anywhere, anytime. | Access to students other than class timings. |
| 3. | Convenience in keeping track of progress in a course | Timely feedback can be provided to students on their progress in a particular course. |
| 4. | Availability of practice questions and suggested solutions make learning more engaging and practical | Better monitoring of students is possible as it is easy to keep track of all assignments - submitted as well as not submitted. |
| 5. | Ease of arranging off campus meetings with instructor and class mates in a virtual environment. | It offers a good platform for using innovative ideas in teaching. |

**Technical Specifications and Support;** Initiating any e-learning program without proper technical support will end up in disaster (Selim, 2007). Any LMS that an organization is going to select should be compatible with the system currently being used, and it should be easy to install and operate. Since LMS requires a lot of confidential information to be uploaded and stored, the network should be fully secured to prevent unauthorized and malicious usage (Zhang and Nunamaker, 2003). Another very important aspect that should be taken into consideration while selecting an LMS is to see that it is compatible with e-learning standards such as Sharable Content Object Reference Model (SCORM) (Sanchez-Alonso & Frosch-Wilke, 2005).

## CONCLUSION

Whatever e-learning demands, an **LMS** is there to deliver. Without it, the online world would be a giant textbook full of unorganized

knowledge – there would be little order to our studying efforts, and even less methodology to help us receive, understand, and retain information.

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# 12

# A Conceptual Paper on the Framework of a Learning Management System for Schools

*Tracy. B. Cardoz**

**Abstract**

The world today is in constant state of flux brought about by the accelerating rate of technological and scientific advancements and the rapid growth in knowledge economy. It is in this changing landscape of the world that our future generations need to succeed by adapting, learning, unlearning and relearning skills, contextual knowledge, new technological practices and applications. E-learning systems have been gaining wide acceptance ever since they were introduced; and the rate at which learning management systems are being adopted by schools and educational institutes has accelerated, due to the lockdown of schools in response to the COVID Pandemic. Learning Management Systems are learning environments that host learning processes, using computer-mediated instructions in a virtual or digital mode. In other words, they are sub-systems and tools for conducting learning transactions in an electronic environment, powered by the internet.

Learning management systems have attained the maturity to provide hybrid learning experiences by a series of complex interactions of people, process, content and tools. There is no one single LMS Platform that meets the objectives of different

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systems of educations. Schools must design a customised framework of LMS platform that meets the user's learning goals and the pedagogical objectives of the institution.

## 1. INTRODUCTION

The 21st century has brought about several transformations to our lives through new technology that has helped productivity in personal life and business spaces. While industries world-over from manufacturing to banking to telecommunication and other service-oriented sectors seamlessly adapted to the technological innovations and acclimatised their operations for greater efficiency, the education industry especially the K-12 segment, still seemed to have been caught in a time warp, operating in the two-centuries old Factory Model approach of the Industrial Revolution Era.

Fast forward to the COVID pandemic and the severe restrictions imposed on physical learning spaces, schools shifted to the virtual learning environments (VLE), almost overnight, taking teaching and learning outside the confines of the coveted classroom. This forced migration of the education system from a brick and mortar model of standardised mass learning, to a more individual-driven & self-learning model is lauded as a silver-lining to the worst of the humanitarian crises that the world is facing. In days to come, the education system, now liberated from the shackles of past, must evolve into a more fluid system of learning that is driven and managed by technology. Traditional models of learning should pave the way for the incorporation of efficient forms of e-learning systems in regular education.

## II. THE LEARNING MANAGEMENT SYSTEM

Learning management systems are among the very few enterprise technologies that emerged directly from the e-learning industry. They first came on the market in the late 1990s when traditional classroom experiences were being "ported" online, redesigned (or at least reconfigured) for computer-mediated delivery, and distributed via the Internet.

A learning management system (LMS) is an integrated set of interactive web-based e-services included in a software application for

the administration, documentation, tracking, reporting, and delivery of e-learning courses [Ardito et.al.2006]. It is "a set of tools and a framework that allows the relatively easy creation of online course content and the subsequent teaching and management of that course including various interactions with students taking the course" (Mas Nida et al. 2010).

The LMS consists of pedagogical devices, human interactions, learning contents and assessment supporting and advancing traditional learning in school or in higher education. LMS is a useful content distribution system, where instructors can distribute course materials and interact with students at a distance (Almarashdeh, Noraidah, Nor Azan and Alsmadi 2010). The LMS can also be described as a high level web based technology solution for planning, conveying and managing a myriad of learning events within an organisation such as online, virtual classroom and instructor-led courses that can assess a specific learning process (N. A. Alias and A. M. Zainuddin, 2005)

To summarise, LMS is a digital environment with software designed to manage user learning interventions with the instructor and the learning material. It is a portal to deliver learning content and resources to students. As Learning Management systems are user-directed, they provide equal and individual access to education, independent of time and place. E-learning materials can be easily uploaded and updated from time to time, which determines their high relevance. Students and instructors can interact either synchronously through virtual classes or asynchronously through participation on forums and blogs. Learning assignments, tests and exams can be conducted via the LMS to evaluate the level of learning and understanding of the learning material and hence the effectiveness of learning. Students' progress and performance can be tracked and reported continuously.

## LEARNING MANAGEMENT SYSTEM FOR EDUCATION - PLATFORM, TOOLS AND CONTENT

Introduced almost two decades ago the early LMS was more of a management system; a primitive model that tracked users' consumption of the learning resources. Early LMS was a course –centric system and was adopted in the field of adult learning, mainly distance learning and professional development. With the emergence of browser-based tools and platforms and the transformation of learning as singular concept, the LMS systems have matured to from being just a "publishing web"

to "participatory web' where the emphasis is on user-experience and interaction. Over the decade, LMS software have been implemented in schooling systems and have in used in promoting and motivating learning as well as maintaining the students' entire lifecycle of learning.

## Platform

The two important dimensions of a Learning Management System for education are the Platform (container) and the E-learning modules (content). The platform represents the software programmed with a framework and different tools that makes content creating, hosting, browsing and tracking possible; it offers an interface for user interactions with the content and with other users. Based on the usage, platforms may be classified as Education-focused LMS or Corporate-focused LMS. Corporate-focused LMS are used for online employee training and may also be called training management systems, or eTraining/ eLearning portals, while Education-focused LMS are complex learning content management systems (LCMS) used to organize and create content for learning or training purposes.

There are numerous open source LMS software, for example Moodle, Canvas and Google Platforms as well as commercial ones such as Blackboard and McGraw-Hill's Connect. The disadvantage of the open-source platforms is that the universal approach is not always suitable for the younger students (school-going), and the commercial ones is that they require real developments to customise the platform for the intended user group. Such customised LMS based on Use-centered design (UCD) entails huge cost in as well as requires lengthy trials and user-acceptance tests to verify its functionality.

Most education institutions and universities adopt a cloud-based or web-based LMS platform which offer the advantage of faster deployment, better storage space and a higher range of accessibility ( in terms of time and place) over traditional LMS that are hosted on-premise (local server of the organisation). Cloud-based LMS offer mobile learning functionality so learning can be accessed on smartphones, tablets and other small mobile devices. These mobile-friendly, cloud-based LMS software it is optimised for a responsive design as the output automatically adjusts to the size of the viewing screen.

## TOOLS

LMS software employs a wide variety of tools support the design and functionality of the platform. The selection of tools is chiefly based on the features of the platform and the nature of learning interactions that the platform offers. Some of the main tools and features of a LMS platform for education are as follows:

- Administration tools – There are different users of LMS software e.g. Administrator, Teacher (Instructor), Student and Parents (guest). The user- role matrix is hierarchical in nature that is each user has a defined role, set of control privileges and access rights. The administrator tools help create and manage user accounts, define and assign roles, create and manage courses, generate and publish reports. An Administrator has complete access to the system.
- Content Authoring Tools – These tools allow creating, publishing, maintaining and storing of educational content. These tools enable instructors to create and arrange content into a standardised course structure. This structure can then be exported in several different multimedia types. Learning content can be also stored in a content repository.
- Tests and Assessments Tools - Specialised tools for the creation of tests, quizzes, assignments, assessments and surveys. More advance assessment tools help in generation of tests based on randomizations and even adaptive testing.
- Communication and Collaboration Tools – These are social learning and networking tools that enable collaboration and communication between users. These include one-to-one messaging, chat, blogs, posts and notifications and forums.
- Monitoring and Reporting Tools – The tools help in tracking the students' activities on the LMS. With these tools reports can be generated on course progress/ completion status, user-analytics (frequency and intensity of user engagement with the platform), user performance on assessments, interactions between users and other user data-based reports. These tools may be coded to perform automated functions such as generation of periodical reports, system generated reminders and alerts and other monitoring data that can be publish on the dashboard for different users.

- Security Tools - Security is an important part of any system. Personal data of users stored in it should be password protected and encrypted.
- Integration Tools- Integration tools allow integration of the LMS with other third party tools for instance, integration with Virtual Classroom applications like Zoom, Microsoft Teams, integration with external storage e.g. Google Drive, OneDrive, integration with gamified learning applications etc.

## CONTENT

The E-Learning Content is at the centre of the LMS software and structured in smaller blocks called learning modules. These modules may be further aggregated into courses/ chapters under the domain of a subject or discipline. The E-learning content design is determined by set industry standards for instruction design, visual design, multimedia objects, texts, and assessment methods. E-course instruction development standards help developers to define the goals and strategies of its content, the degree of interactivity, the assessment methods, and the ways of communication between teachers and students. Visual design standards are rules for the graphical user interface (GUI) and its navigation elements. The purpose of visual design standards is to ensure design integrity between modules.

Multimedia object standards provide consistency and compatibility in multimedia objects used in the e-course contents, such as screen layout/ size, text elements, graphics, animation, audio, and video. Text standards determine the text content design and organisation in an e-learning platform. Specific written standards are used determine the used language, punctuation, lists, abbreviations, acronyms, and other text elements.

### E-learning technical standards

LMS platform used in education and e-learning content follow the universally accepted technical standards that refer to the functionality and portability of e-learning courses across devices, browsers, and operating systems. Some of the most frequently used technical standards are SCORM, xAPI, CMI5, and AICC.

- SCORM (Shareable Content Object Reference Model): This technical standard is developed by the United States Department of Defense, Advanced Distributed Learning (ADL) group. SCORM unify the structure of eLearning so that learning objects and assets (images,

video, documents, and webpages) could be reused and transferred between systems, military departments, and remote locations. According to this standard, every LMS system should be a centralised e-learning system with a high-level of stored data security.

- xAPI (Experience API): The xAPI is a new specification standard for e-learning systems that makes possible the collection of data from a wide range of learner activities. The data is recorded in the Learning Record Store (LRS) and can be shared with other LRS systems. This standard is based on the people abilities to learn constantly, whether as part of communicating with other people on the web, reading news blocks, or searching for some information.
- CMI5: CMI5 is a modern e-learning standard. It uses the definition of the xAPI standard with interoperability determined between different systems.
- AICC (Aviation Industry Computer-Based Training Committee): This technical standard was created for e-learning for airlines staff. Although the purpose of the AICC standard is the same as that of SCORM, the difference is that it uses HTTP messages to communicate

## LEARNING MANAGEMENT SYSTEM – A DESIGN FRAMEWORK FOR SCHOOLS

A framework of a LMS platform for schools must take into account the pedagogical objectives of learning that is set forth to achieve. The term pedagogical usability denotes whether the tools, content, interface, and process of a learning management systems support learners in different learning contexts according to selected pedagogical objectives.

Besides considering technological issues, it is also necessary to rely on sound educational theory to design a framework for learning management system. For instance, the present constructivist theory maintains that learning is an active process where learners manipulate new learning material and create cognitive links between such material and prior knowledge. The constructivist approach has recently been significantly extended with social perspectives on the learning process, especially "situated learning." A situated view of learning implies that effects on learning of using information and communication technology will depend on the context in which it is used, with all the components of a learning environment (people and artifacts) interacting and contributing

to the learning process. An amalgam of the principles of constructivism and situated learning is often referred to as "socio-constructivism"

Thus the socio-constructivism approach has implication on the design of the framework and the kind of user experiences the learning platform provides. The learning process and the E-Learning content should be included in collaborative context, through social interactions with the teachers and peers, learners should be assisted in some way to construct and refine concepts in personally meaningful way. Hence the learning platform should have communication and collaboration tools for learner interactions.

From a constructivist perspective, learners need to be encouraged to take responsibility for their learning, while becoming more aware of their own knowledge. The learning management system should orient students into self-learning, through easy to navigate user-interface, age appropriate e-learning content, accessible communication channel to teacher/ peers and a daily update on the course/ module completion status in a gamified manner to keep the motivation levels up.

Adoption of a learning management system also demands newer approaches to learning. In a face-to face model, the teaching learning process is teacher-led; however, with the LMS software it is possible to include student-centered learning approaches like flipped classrooms, blended learning, personalised learning and differentiated learning.

A LMS design framework conceptualised for schools is as follows:

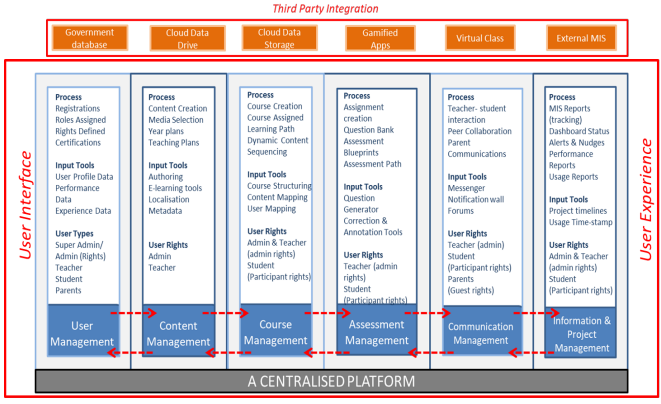


**Fig 1: A Design Framework for school-based LMS platform (Rights reserved by the author of this paper)**

- This model of the Learning Management system is a single, centralised platform with several sub-systems with integrated and interdependent functionalities.
- This is a cloud-based LMS with mobile functionality which makes any-where, any-time and remote learning possible.
- The intuitive user interface is simple enough for younger students and less computer-savvy teacher and parents to navigate with ease.
- The sub-systems have defined processes that are inter-related with the processes of other subsystems. For instance – the process of Role Assignment and Rights Management that is a part of the User Management sub-system forms the input for the User Mapping to courses/ modules in the Couse Management sub-system
- Similarly the Performance Reporting from the Project and Information Management sub-system becomes an input for the User Performance Database of the User Management sub-system which in turn determines the Learning Path for the User (student) in the Course Management sub-system.
- Each subsystem has a set of tools to input data or channelise data for input from other subsystem.
- Modular course structure that presents the learning content in micro-segments that is sequenced in a logical order
- Engaging e-learning content with interactivity is created or curated or both in the Content Management sub-system.
- Comprehensive analytics and reporting mechanism that can be configured in dashboards with customised views and drill down views for different users.
- Full workflow with notifications, alerts, warnings and escalations with email/SMS integration
- Third-party Integration with other external systems and plug-ins such as government systems/databases for accurate information exchange, Virtual Class Applications, Gamified Learning applications and other external Management Information system

The functionality of a LMS can be revaluated along four dimensions: Quality of Learning, Quality of Teaching, Quality of Learning Environment and Quality of Interactions. Quality of

Learning is determined by quality of content, participation, students' results and competencies. Quality of Teaching is evaluated through the quality of the teachers' competencies, course preparation and organisation. Quality of Learning Environment includes quality of interface, technological infrastructure and feedback, while Quality of Interactions is determined by the quality of student-teacher and student-student interactions.

## CONCLUSION

Incorporation of LMS software will be meaningless if the schools do not re-imagine their teaching strategy and delivery model. Virtual Learning and remote learning opportunities must be explored in context of a robust learning management system. There are many LMS available for serving different purposes. Many of the systems contain different features like course management, user management, security features, virtual classroom feedback management, and many other common features. The framework and features of a Learning Management System is designed keeping the end users in mind as well as the educational theory behind the pedagogical usability of the system. A cloud-based system would help schools, educational institutes and universities to disseminate knowledge and instruction among students, teachers and parents.

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# 13

# Learning Management Systems (LMS); E-Learning Resources; Outcome-Based

*V. Veeraraghavan**

**Abstract**

**E-learning** is the computer and network-enabled transfer of skills and knowledge. Since new technologies are commonly thought to make a big difference in education, many universities have adopted **learning management system** (**LMS**) to support teaching and **learning** processes.

With an aim to shift from being known as developing country to developed country came the concept of e-learning in India. It is indeed a promising reform with a positive outlook and no specified boundaries. e-learning refers to learning supported by electronic media. e-learning is a means of education that incorporates self motivation, communication, efficiency, and technology. It is effective as it eliminates distances and subsequent commutes. It is the acquisition of knowledge and skill through electronic technologies such as computer and Internet-based courseware and local and wide area networks. e-learning refers to utilizing eresources in the e-world. With the vast development of various technologies, learning today is no longer confined to classrooms with lecture delivery as the only method of conveying knowledge, rather, an electronic means of learning has continued to evolve. e-learning facilitates education using communications networks,

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and has made learning possible from anywhere at anytime using the Internet, wide area networks or local area networks. The students who used to spend their time in library searching for information in books and journals can now a days, use search engines and figure out the web sites for the information needed, thus making information sharing a very easy task.

***Keyword:*** Instructional Design Visual Instructional Design Language Learning Management System Modeling and Meta-modeling

## INTRODUCTION

Online or blended courses are likely delivered at your university using a learning management system (LMS) like Moodle, Blackboard, Desire2Learn, Sakai, Canvas etc.

Learning management systems are the software hub of most online courses. In general, they have basic tools for assessment, communication, content management, data collection, and reporting. Some may have tools for both synchronous (same time) and asynchronous (not happening at the same time) communication.

The following table identifies LMS tools and their definitions followed by some examples of how they might be used. Keep in mind that the tool names provided in the table may vary. As an Online TA you will need to know which tools are available in your learning management system and how to use them. You should be able to get that information from your University's computer/systems group and/or your Centre for Teaching Excellence.

## THE MOST EFFECTIVE TIPS FOR SUCCESSFUL LEARNING MANAGEMENT SYSTEM IMPLEMENTATION

If you are reading these lines, it means you and I have the same goal: To help create meaningful, truly impactful eLearning experiences. Also, you and I both know success starts from day one. And this is where implementing a new Learning Management System gets in the picture.

Here's the good news: **The Free Successful Learning Management System Implementation eBook** offers you a glimpse into the minds of **Top Learning Management System Experts** who are here to

help. They've dealt with countless clients over the years, and know what it takes to create an effective Learning Management System implementation plan. They also understand the pitfalls of implementing a new Learning Management System; this puts them in a unique position to shed light on common obstacles that you should avoid. Even some that you may not have considered!

## LEARNING AND TRAINING EFFICIENCY

An LMS helps you deliver learning and training programs that impact your company's bottom line.

## PERSONALIZING LEARNING FOR EMPLOYEES

A good LMS built in features for robust learning assessment and goes on to collect.

## LEARNIG TECHNIQUES FOR OUTCOME BASED EDUCATION

Traditional Education Outcome based Education. The desired outcomes are determined first and the programme curriculum, teaching and learning methodology and supporting facilities are designed to support the intended outcomes based on a very simple, practical, logical notion that every one of us uses everyday in our lives.

LMS handles the management and delivery of e-learning courses. It lets you create eLearning content, organize it, deliver the content, enroll students, monitor and measure their performance.

## USAGE OF LMS

**LEARNING MANAGEMENT SYSTEM –** Staff induction training - Blended training solutions - Training Needs - Analysis Product equipment training - Company policy & procedure Training**.**

Organizing your courses is simple. An LMS allow you the freedom to structure your eLearning offering in any way you want. There's a lot of organizational tools that you can combine in multiple ways including flexible SCORM materials.

Delivering your courses is also flexible. Your courses might be made for restricted audience are they might be meant for a wider population. A modern LMS should handle all these cases an be available to mobile devices.

### Lms Uses of Business

- There will be three kind of users, to begin with administrators. instructors and students doing the learning.
- In a smaller business or organization the administrator or instructor could be the same person-after all setting up a user friendly LMS like Talent LMS is no more difficult than using Facebook.
- A good LMS takes the tedium out of these tasks, automating all the repeated actions, and allowing you to perform changes and updates to multiple items (students, courses, etc.) at once.

### Advanced Lms Features

- We covered the basics of what LMS platforms are and what they do.
- There are also some more advanced features that your LMS might or might not support (and if it doesn't you can always toss it and get Talent LMS).
- The ability to organize and hold eConference sessions, with multiple students participating through audio and video.
- Online whiteboard functionality, so instructors and students can create and share writings and drawings in real time.
- The ability to sell courses and integrate with payment processors such as PayPal and Stripe.

### Mobile Application

Learning Management Systems that are accessible whenever, wherever via mobile devices. You can upload online training content so that online learners can track online training initiatives on the go.

### Benefits

Online classess anytime anywere, 24/7 Access To Online course, Learn at your own pace, Balance Eduction with work,

1. **Access to information anytime anywere**: Students can get access to study materials from anywere and at any time. Most modern L.M.S. have mobile apps that allow students t engage with e-learning content on any device.

2. **Centralized Information**: All study materials are consolidated in one location. Students can quicly exchange various resources.
3. **Increased Communication**: Students can collaborate an different tasks. Students can make connections and exchange opinions with others. Student stay uptated with the latest news from teachers and friends.
4. **Studying becomes more enjoyable:** L.M.S. support for self paced classess. Rich and engaging content makes learning more effective and students more involved.
5. **Time Saving:** Students can rapidly find important and relavent material. Students can submit assignment with just one click. Fast and extensive updates on their learning process.

## BENEFITS OF TEACHER

Better monitoring of students is possible as it is easy to keep track of all assignments - submitted as well as not submitted.

Access to students other than class timings.

It offers a good platform for using innovative ideas in teaching.

Convenience in providing additional resources to students besides class lectures.

- Different groups of students study independently, without interfering one another.. ..
- A personalized approach to each student.. ..
- Increased engagement and students' collaboration.. ..
- Flexibility, a room for pedagogical experiments and innovations.. ..
- Unlimited tracking data.

### 1. Organizes eLearning content in one location.

Instead of having your eLearning content spread out over different hard drives and devices, you can store all of your eLearning materials in one location. This reduces the risk of losing important data and makes it easier to create your eLearning course. Every member of your eLearning team can also access the information if you're using a cloud-based Learning Management System, thanks to the fact that it's all stored on the remote server. This makes Learning Management Systems a natural fit for online collaboration.

### 2. Provides unlimited access to eLearning materials

Once you upload your eLearning course materials onto the LMS and publish them, your audience has unlimited access to the information they need. Even those who are on the go can login to the eLearning platform via their smartphones and tablets, so that they don't have to wait until their next online training session to develop skills and perfect work-related tasks. This is one of the main reasons why a LMS is essential for global audiences in different time zones.

### 3. Easily tracks learner progress and performance

The best Learning Management System gives you the ability to keep track of learner progress and ensure that they are meeting their performance milestones. For instance, if an online learner is not able to successfully complete an eLearning scenario, you can offer them supplemental resources to improve their performance or learning behaviors. Most Learning Management Systems feature reporting and analytics tools that also allow you to pinpoint areas of your eLearning course that may be lacking, as well as where it excels. If you discover that many of your online learners are struggling throughout a specific online lesson, for example, you can assess the eLearning content and make modifications if necessary.

### 4. Reduces Learning and Development costs

A Learning Management System gives you the power to completely do away with instructor travel costs, online training site rentals, and printed eLearning materials. Your online learners can carry out all of their training online, which means that you can save a sizable sum on your Learning and Development budget. For example, you won't have to worry about printing out 500 manuals and booking a hotel room for your instructor, because all the information your online learners require is right in the LMS.

### 5. Reduces Learning and Development time

A Learning Management System can even reduce online training times, thanks to the fact that it gives online learners only the information they need in a direct and organized manner. Instead of having to sit through a lengthy half-hour online training course, online learners can

simply click on the online modules they need and absorb the knowledge in a fraction of the time. They can also assess their understanding by taking online exams or quizzes, participate in interactive scenarios and simulations, and watch eLearning videos that highlight complex processes or tasks.

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# 14

# Pre-eminent Placement and Entrepreneurship Assistance for Students Support and Progression

*Dr. Ketan S.Vira**

**Abstract**

The final outcome of any education is evident from the placements and entrepreneurship and all the activities of the institute should finally percolate to it which has a major impact on the institution building and image if an institution, which is evident from the fact that most of educational institutes take credit of its illustrious alumni by publicizing the same.

The study deals with the role of institution in terms of its activities of Student Support and Progression and suggests the strategies to map all the activities of either placements and/or entrepreneurship,

The article discusses the mechanism through which an institute can develop its strategy to make effective placement and creating entrepreneurs. The study is limited to one criterion of all the criteria and deals only with one aspect that is placement and entrepreneurship.

***Keywords:*** Placement, Entrepreneurship, Students Support, Cell

*Dean, GNVS Institute of Management, Mumbai, Maharashtra

## INTRODUCTION

The Institute's success is based on the final outcome, where many institutes highlight their illustrious alumni's on the website. But, the whole process of this outcome is based on how institutes work towards Student Support and Progression.

Criterion V of NAAC i.e. Student Support and Progression highlights the efforts of an institute to provide necessary assistance to the students, to enable them to acquire meaningful experience of learning at the campus and to facilitate their holistic development and progression. It also looks into student performance and alumni profiles and the progression of students to higher education and gainful employment.

The broad areas include : Capacity Building and Skill Enhancement Initiative taken by the institute, Guidance for Competitive Examination and Career Counseling, Placement, Progression to Higher Education, Students qualifying in State, National and International Examination, Awards/ Medals in Sports/ Cultural Activities at University, State and National Level, Students' representation and engagement in Administrative, Cultural and Extra- Curricular Activities, Number of Sports/ Cultural Events /Competition for students participation and Alumni Engagement and Contribution.

Key Indicators of Criterion V include: Student Support, Student Progression, Student Participation and Activities and Alumni Engagement with total weight age being 140 and 130 for UG and PG Colleges respectively.

## RESEARCH METHODOLOGY

32 IQAC Coordinators of UG and PG colleges affiliated to University of Mumbai and institutes were interviewed through structured and unstructured questionnaire to identify and map the activities both co-curricular and extracurricular for final placements and entrepreneurial pursuits of outgoing students. The Sampling was convenient and descriptive analysis is used for discussion. Study includes metrics of criterion V excluding students benefitted through scholarship by Government, scholarship by an institute and contribution of alumni in rupees, which cumulatively is weight age of 30.

### Objectives

To map the activities conducted by the UG and PG institutes towards placements and entrepreneurship.

To suggest the strategy for placements and entrepreneurship.

## Analysis

**Table-1: Mean Value of relevance of selected indicators of Criterion V**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Capacity Building and Skill Enhancement | 32 | 3 | 4 | 3.59 | .499 |
| Guidance for Competitive Exams | 32 | 2 | 4 | 3.47 | .621 |
| Progression Higher Education | 32 | 2 | 4 | 3.16 | .808 |
| Student Qualifying in Exams | 32 | 2 | 4 | 3.56 | .564 |
| Awards Medal in Competition | 32 | 2 | 4 | 3.06 | .669 |
| Students Representation & Eng. | 32 | 2 | 4 | 3.37 | .660 |
| Activities & Competition | 32 | 2 | 4 | 3.09 | .689 |
| Alumni Contribution | 32 | 2 | 4 | 3.19 | .738 |
| Placement/ Entrepreneur-ship Cell | 32 | 4 | 4 | 4.00 | .000 |

Source: Prepared

It is evident from the above table that Placement and Entrepreneurship Cell activities is the core for institutions placement and entrepreneurship records, followed by capacity building and skill enhancement, students qualifying at competitive examinations, guidance for competitive examinations and students representation at several bodies and forums. Other indicators which also contribute to the placements and entrepreneurship followed by the above mentioned are alumni contribution, progression to higher education, activities and competition and students winning awards and medals.

**Table-2: Contribution of Capacity Building and Skill Enhancement initiative towards Placements and Entrepreneurship**

| | | Capacity Building and Skill Enhancement | | Total |
|---|---|---|---|---|
| | | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 9 | 11 | 20 |
| | PG | 4 | 8 | 12 |
| Total | | 13 | 19 | 32 |

Source: Prepared

Comparing Undergraduate and Post-graduate programs both more or less, average out to the same in terms of Capacity Building & Skill Enhancement initiatives conducted at the institutes.

**Table-3: Contribution of Guidance for Competitive Examinations & Career Counselling toward Placements**

| | | Guidance for Competitive Exams | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 0 | 6 | 14 | 20 |
| | PG | 2 | 7 | 3 | 12 |
| Total | | 2 | 13 | 17 | 32 |

Source: Prepared

Importance of the above mentioned is of greater significance at undergraduate level as compared to post- graduate level. However, its importance is not negated irrespective of differences at UG and PG level.

**Table-4: Contribution of Progression to Higher Education for Placements and Entrepreneurship**

| | | Progression Higher Education | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 0 | 7 | 13 | 20 |
| | PG | 8 | 4 | 0 | 12 |
| Total | | 8 | 11 | 13 | 32 |

Source: Prepared

Student's progression to higher education at UG level is of greater significance as it is obvious that outcome of PG is ultimate placements or entrepreneurship.

As shown in the Table 5 students qualifying at Competitive exams is also one of the major contributors to the placement. But the relative importance of it is more at undergraduate level as compared to post graduate level. This is primarily due to the fact that students who have enrolled for PG programs may have already gone through career counseling done at the UG level.

**Table-5: Contribution of Students Qualifying at Competitive Examinations towards Placement**

| | | Students Qualifying in Exams | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 0 | 7 | 13 | 20 |
| | PG | 1 | 5 | 6 | 12 |
| Total | | 1 | 12 | 19 | 32 |

Source: Prepared

**Table-6: Students awards and prizes' contribution to Placements and Entrepreneurship**

| | | Awards Medal in Competition | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 2 | 13 | 5 | 20 |
| | PG | 4 | 5 | 3 | 12 |
| Total | | 6 | 18 | 8 | 32 |

Source: Prepared

It is quite evident from the Table 6 that the awards and prizes in several competitions and activities at national and state level do not contribute significantly to the placement and entrepreneurship. But none of the respondents completely eliminate the contribution as the responses are varying between to some extent to greater extent.

**Table-7: Students Representation and Engagements in several bodies and forum and its contribution in placements and entrepreneurship**

| | | Students Representation & Eng. | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 2 | 10 | 8 | 20 |
| | PG | 1 | 4 | 7 | 12 |
| Total | | 3 | 14 | 15 | 32 |

Source: Prepared

Students' participation in several bodies and forums contributes significantly. However, its relevance is more at PG level as compared to UG level.

**Table-8: Students participation in Activities and Competitions and its contribution in Placements and Entrepreneurship**

| | | Activities & Competition | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 3 | 10 | 7 | 20 |
| | PG | 3 | 7 | 2 | 12 |
| Total | | 6 | 17 | 9 | 32 |

Source: Prepared

Activities and competitions organized by institutes also have relevance. But the time of activities also play a significant role.

**Table-9: Alumni's Contribution towards Placements and Entrepreneurship**

| | | Alumni Contribution | | | Total |
|---|---|---|---|---|---|
| | | Contributes to some extent | Contributes moderately | Contributes greatly | |
| Type of Institute | UG | 6 | 10 | 4 | 20 |
| | PG | 0 | 4 | 8 | 12 |
| Total | | 6 | 14 | 12 | 32 |

Source: Prepared

Role of Alumni is also important. Its relevance is more at the PG level

Finally role of Placement and Entrepreneurship Cell has direct and core relevance to the topic under discussion.

## Suggested Strategy

From the qualitative responses it can be used to strategies all the activities to improve placements and entrepreneurship development at the institute.

1. Identifying the student's interest at the entry level.
2. Clubbing similar interests.

3. Segmenting the students based on their interest.
4. Identifying competitions and activities at the different levels and nominating students based on their interests.
5. Students to be counselled for career based on their interests.
6. Skill Enhancement and Capacity building initiatives can also be designed based on the segmentation done and also the students can be prepared for competitive exams if required as per their interests.
7. Increasing the participation as participants and organizers.
8. Tracking the performances at competitions, activities, skill enhancement course, certification, etc to the placement or entrepreneurship cell.
9. Inviting alumni to participate in screening process and can be a part of guidance to students.
10. Placement Cell and EDC take the charge and map their interest with the opportunities.

## DISCUSSION & INTERPRETATION

It is quite evident that most of the indicators under Students Support and Progression are contributors to the final outcome which broadly can be either getting the placement based on the interest or taking up the entrepreneurial venture. However, the relevance of the selected indicators varies to some extent for UG and PG program. The role of placement and entrepreneurship cell need to be more focused as the entire hand holding of the students finally culminates there.

The activities like sports, cultural and extra-curricular should also be made more interest driven where students can blend these skills for their work-life balance and are of equal importance, although they may not directly contribute to the placement.

The role of alumni can be of great importance if linked with placement cell where they can suggest the openings in the organizations where they are either working or may be their own businesses.

Career counseling and capacity shouldn't be the mass activity, although it may be tedious to organize based on the interests clubbed. But, will be really meaningful.

Students' participation at several bodies and forums makes them more responsible and increases their confidence in terms of decision making.

## CONCLUSION

The article concludes that if the activities highlighted in Criterion V if properly executed with the outcome based focus will lead to institutes generating illustrious alumni and enhancing the quality of education with outstanding grade too.

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# 15

# Exploring the Relationship Between Social Relational Consciousness, Spiritual Consciousness and Altruism of student teachers

*Dr. Shaharas Sharafudeen P.V.* and Dr. Saramma Mathew***

**Abstract**

This study provides insight into the relationship between Social Relational consciousness, Spiritual Consciousness and Altruism of student teachers. Social Relational & Spiritual consciousness Inventory (CQ) by Brazdua and Mihai (2011) and Altruism Scale prepared by the researchers were administered on 120 student teachers studying in different B.Ed colleges of greater Mumbai. Study revealed that there is a positive and direct relationship between the Social Relational Consciousness, Spiritual Consciousness and Altruism of the student teachers. The findings from this study support the use of an integrated model of community work to influence the development of altruistic behaviours among student teachers.

## INTRODUCTION

Altruism can be described as an attitude which is concerned with the happiness of other human beings or animals. A society without

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altruism will be selfish and this affects human cooperation and social development. We live in a society and if we are empathetic to the other then we are inclined to help them irrespective of the fact that, that person can help us or not. When humans respond to the needs of others without expectations we can say that they are altruistic.

A recent event in Kerala was an example for this. An airplane overshot the runway and fell into a valley thirty feet below. The help from the airport would have almost taken an hour to reach the valley but the people in the valley summoned all their resources and despite the Covid threat ensured that most of the injured were taken to hospitals before official help could arrive. Why do people engage in such behavior when their lives could be in danger? Human beings are mostly motivated by self-interest but for altruistic behaviour the motivation is others interest.

The concept of altruism was developed by August Comte, he defined it as "living for others" (Comte, 1851). According to Piliavin & Charng (1990), altruism is defined as all of the values, preference and behaviours that are oriented to meet the needs of others rather than their own desires and needs.[1]

Most teachers choose teaching because they are motivated by altruistic factors. Teachers with altruism can carry out their functions smoothly as it aligns well with the purpose of their profession. Teaching not only deals with curriculum transaction but also with moulding good human beings for the society. This requires teachers to have a model behaviour pattern. A teacher needs to empathize and understand the needs of the students and address these needs without expectation of rewards.

Teacher educator's job is not to prepare student teachers to do well in their exams, but to prepare them to meet the needs of the future education systems. Teachers guide the lives of students without selfishness not only in the process of educational development but also in their day-to-day life. Teachers need to carry out exemplary roles in the class room as they are igniting young minds of the future. Students often imitate observed generosity of teachers, their dedication towards the school, society and their profession and these have a positive effect on their behavior. Altruistic behavior is a guiding principle which is important for everyday behaviors as also for critical life

situations. Perhaps an understanding of fellow beings feelings and one's awareness of spiritual responsibilities could facilitate individual's altruistic behaviours.

The Consciousness Quotient (CQ) theory was introduced by psychologist Ovidiu Brazdau in 2008. Consciousness Quotient according to him is the general level of being conscious/ aware throughout a day, in regular life conditions. He has discussed six dimensions of consciousness in his study – physical consciousness, mental/cognitive consciousness, emotional consciousness, social-relational consciousness, spiritual consciousness and self-consciousness.[2]

The social-relational consciousness refers to the ability of being conscious of human relationships and the connections with the people you interact with. Spiritual consciousness refers to the ability of being conscious about oneself as a part of the universe, and describes the ability to be conscious of the multiple connections with the surrounding life (Brazdau & Mihai, 2011)).[3] In the present article the researchers tried to relate social relational and spiritual dimensions of consciousness quotient of student teachers with altruisms.

Takagishi et al. (2010) reported that theory of mind plays a role in enhancing sharing and other pro-social behaviour.[4] Similar findings reported by Moore et al, 1998.[5] These findings imply that the ability to infer the mental states of others or consciousness plays an important role in exhibiting the altruistic behavior. However, Keskin and Jones (2011),[6] found no relationship between theory of mind and altruistic behavior.

Therefore, the theoretical base for this research is formed on the belief that such factors as social and relational consciousness and spiritual consciousness can facilitate altruistic behaviours of student teachers. Hence, this research paper seeks to understand the relationship of social relational consciousness, spiritual consciousness and altruism through correlational analysis which would become a theoretical base for an integrated model of community work and various social service programmes in the B.Ed colleges.

## OPERATIONAL DEFINITIONS OF THE VARIABLES

- **Social –relational consciousness**: It refers to the ability of being conscious of human relationship and connections with them.

- **Spiritual consciousness**: It refers to the ability to share fundamental consciousness with other species and sense their sufferings.
- **Altruism**: It refers to the willing an individual to risk his/her own lives for the sake of others.

## STATEMENT OF PROBLEM

"Exploring the relationships between Social Relational Consciousness, Spiritual Consciousness and Altruism of student teachers."

## METHODOLOGY OF THE STUDY

The present study has adopted the descriptive method of the correlational type.

## SAMPLE

The study was conducted on a sample of 120 student teachers of B.Ed colleges in Greater Mumbai, drawn by stratified random sampling.

## TOOLS

The following specific instruments had been used for the purpose of data collection:

1. Social Relational & spiritual consciousness Inventory (CQ) by Brazdua and Mihai (2011)
2. Altruism Scale Prepared by researchers.

### Objective

To explore the relationships between Social Relational Consciousness, Spiritual Consciousness and Altruism of student teachers

### Statistical Analysis

The collected data were analyzed with the help of Pearson's co-efficient of correlation (r).

The coefficient of correlations obtained between Social Relational consciousness, Spiritual Consciousness and Altruism are given in the table 1.

**Table-1: Correlation of Social Relational Consciousness, Spiritual Consciousness and Altruism**

| Variables | N | DF | r | LOS |
|---|---|---|---|---|
| Social Relational Consciousness & Altruism | 120 | 118 | 0.55 | 0.01 |
| Spiritual Consciousness & Altruism | 120 | 118 | 0.49 | 0.01 |
| For df = 118, Tabulated 'r' = 0.174 at 0.05 level & 0.228 at 0.01 level | | | | |

As per the table, the values of ' r' of Altruism with Social Relational Conscious is 0.55 and Spiritual consciousness is 0.49 respectively. These 'r's are moderate in magnitude and positive in direction.

## MAJOR FINDINGS OF THE STUDY

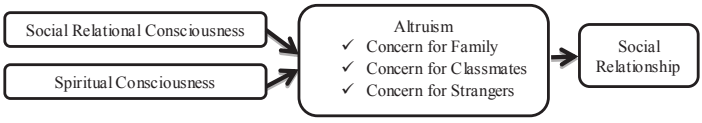
The 'r's of Social Relational Conscious and Spiritual Consciousness with Altruism are found to be positive and direct in nature and moderate in magnitude which implies that more social relational consciousness and spiritual consciousness, higher will be the Altruism of student teachers.

## EDUCATIONAL IMPLICATIONS

Altruism is an important value for all human beings and especially teachers. This can be developed through various means.

On the basis of the research finding an integrated model of developing altruistic behaviours among student teachers can be developed by integrating social relational consciousness and spiritual consciousness as antecedents of altruism.

Following figure shows the proposed model for developing altruism among student-teachers and which in turn would help them to build social relationship in the society.



Altruism can be developed by involving in voluntary services. When individuals are given an opportunity to do some good work to others whom they may not know and who may not give anything in return, helps them to experience the feelings of altruism. Human beings have the capacity for altruism and this innate value comes from the ethical need to take responsibility for one's community. When individuals come together and help others in order to alleviate misery and develop ones society, is a result of altruism. Once individual's experience and practice altruism, there is more scope for developing and refining it.

## TRANSLATING THEORY INTO PRACTICE

For developing altruism among student teachers, AIKC COE took up community service in an area which is most socially backward. In fact people from this section of the society are the modern untouchables. The NGO Navjeevan works with Commercially Exploited Sex Workers (CESW) and their children in the red light area of Mumbai. When the college thought of taking up this area for community service there was a lot of apprehension. Many student teachers expressed the concern that their parents would not approve this area for community service. This issue was resolved by inviting a social worker from the NGO to explain the whole situation to the students. The social worker narrated the heart wrenching tales of young girls who were cheated, bought and sold into the sex trade. Their experiences of exploitation, isolation and total helplessness in a strange area were recounted. This opened the eyes of the student teachers as they got an insight into how the flesh trade operated in the red light area. The lecture and discussion also helped allay the fears of the students and they were open to do community service in the red light area.

The NGO also focused on the rehabilitation of children of CESW, so it was felt that the student teachers could teach the children and interact with them. Thus the community program was devised and it was executed in two stages. The first stage dealt with creating a rapport with the children. For this purpose the children from the red light area who were with the NGO were brought to the college and whole day fun fair program was organized. This interaction changed the student teacher's attitude towards the programme completely. Whatever hesitation they had evaporated by then and they all were looking forward to the future activities. In the second stage the student teachers went to the centers

where the children were housed and taught them through play way method. Each student teacher was put in charge of few children and their development was assessed and recorded. Student teachers also organized picnics, visits and games for the children. They were asked to record all the activities and also write the reflection. Their responses and reflections were an indicator of the changes that came into their thinking and their values like empathy and altruism. Every student teacher expressed the love and warmth they shared and how it touched their lives and changed their thinking.

This program helped student teachers to develop social relational consciousness and spiritual consciousness which are the driving forces behind altruism. It helped them connect with children no matter what their background and where they came from. This is an important value for student teachers as in the future they will face a variety of students coming with diverse, social, psychological, physical and economic problems and a sense of altruism is necessary to deal with these situations.

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# 16

# Altruism and Distinctive Practices

*Mrs. Ninette Dsouza**

**Abstract**

"Altruism is when we act to promote someone else's welfare even at a risk or cost to ourselves." It is not an act of serendipity, rather a prescription to create a precinct of life, wherein we prosper and allow others to do so too. It helps us fight addictions, build social connections, become good role models besides having many other benefits.

Altruism ensures the underprivileged get opportunities to sample better lives and prove their worth, are groomed to feel content with their irreplaceable lives. Working on a constant ideology it provides them with a covert power.

Flavia Agnes, Baba Amte, Aabid Surti, Dr. Abhay & Rani Bang amongst others are persons whose extraordinary determination never let problems become reasons for inaction. They help us understand that (i) Leadership is not about titles and positions. It is about one life influencing another's for the better. (ii) Power is strength and the sharing of that strength with others.

Altruism is not limited to one's bank balance but to the expanse of one's heart. It was not intermittent Altruism that motivated many to reach out to affected countrymen during the lockdown. It was genuine love, empathy and selfless service. The efforts that were spearheaded at the onset, continue till date, and must not

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stop even when, the current new normal for living ceases. When Corona metamorphoses into Karuna, to become a part of the fabric of our lives, it will leave the Creator smiling appreciatively on His Creation.

## ALTRUISM AND DISTINCTIVE PRACTICES

'Sweet Spot' is a catchphrase synonymous with cricketers, golfers and tennis players. In a world where the unmitigated 'I, ME, MYSELF' culture is all too pervasive, Altruism is not to be looked at, as a fortunate stroke of serendipity, rather as a personal oeuvre to society. Altruism is like a prescription to create a zone, a life precinct, our own personal 'Sweet Spot' so to speak, wherein we can live, prosper and grow and allow others do so too. Altruism offers us one chance to shine like Halley's Comet, (appearing once in 75 / 76 years) causing the Creator to smile benignly and benevolently on His Creation.

## BENEFITS

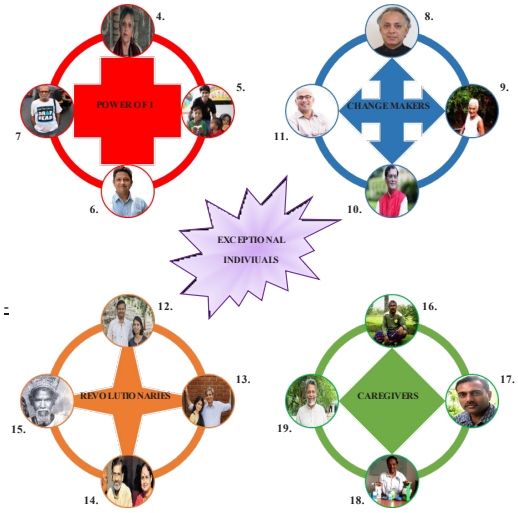
Greater Good Magazine defines Altruism as [1] "When we act to promote someone else's welfare even at a risk or cost to ourselves." Philosophy states "Behaviour is normally described as altruistic when it is motivated by a desire to benefit someone other than oneself for that person's sake."[2]


More and more Research suggests that practising Altruism enhances our well-being[3] Altruism is like a Catch 22 situation. Life feels good when we go out of our way to mitigate the burdens of others, focusing the periscope of our lives on them, ensuring that our efforts are commensurate with enhancing the quality of their lives. When genuine love, empathy and selfless service, form the edifice of one's existence, one can weather the worst storms of life and come out tops!

## THE MECHANISM

Altruism works in myriad ways. It is not just a visual homage. It in fact guarantees that the under privileged get ample opportunities to sample a whole new world. It allows for cheering them from the side-lines, as they experience a sense of pride when they stand out amongst the privileged lot. Altruism protects those being helped while establishing that, camouflage is not the answer to life's lessons such as a) when inadvertently they may be ridiculed or let down by one of their own, they need to take it in their stride and move ahead b) never let the idea of defeat or fatalism creep into their minds but rise like a phoenix after failures c) continuously believe in themselves and never be swayed by the views of others d) accept that an easy life where everything goes your way might seem great for a while but it is not the way to develop one's Character.

Altruism works to groom people to be true to themselves, to feel content with their own irreplaceable lives, to understand that they possess a treasure more powerful than fame or might. Without verisimilitude, Altruism works on a consistent ideology, thereby providing the disadvantaged a power, not one worn overtly on their sleeves but one that shines through as The Walk matches The Talk. One of the main objectives of Altruism is to create persons with a no nonsense attitude that combines warm affectionate human beings, secure in themselves who in turn, are able to be encouraging towards others.



## A PARADIGM SHIFT

The spunk and copious efforts of the few persons featured above, many of who may not have made it to Page 3 of the National Daily or to the Panellist table on a Television channel, may seem infinitesimal, against the de-facto adverse lethargy of the powers that be. Just as pure raindrops reduce the salinity of the sea, their endeavours make a BIG difference in the lives of what appears to be a SMALL indigent community. What prompted them to leave their comfort zone in order to make living worthwhile for their brethren? For what it's worth, my answers to this banal question….These ordinary persons had extra ordinary amounts of determination. They never let the problem they encountered become an excuse for inaction. Their initiatives intended for those whom they mentor, encourage the belief that, no matter what your situation in life, you can catapult yourself into the place of your dreams, remembering always that it is not enough to have a dream, unless you are willing to pursue it. I had heard of some of them in passing and read about others in assorted periodicals. When I researched them for this paper, I was able to put together a few characteristics that appeared as golden threads linking all of them. For example Altruistic persons can :- (i) break through their limitations and realize incredible growth (ii) confront reality (iii) with quiet aplomb challenge everything that lies ahead of them with courage, wisdom and strength (iv) deal with people sagaciously (v) be secure, peaceful and happy with tangentially visible earthly honours (as the world knows them) (vi) avoid ennui (vii) circumvent inane conversations (viii) be intrepid (ix) can eschew arbitrary decisions (x) prove they are in no competition with any other, except maybe with themselves, hoping to touch in a better way more lives with each passing day. Thus they are able to build in the deprived, a strong sense of responsibility, that allows this section of persons to stand up for their rights without usurping another's, while confidently standing up to the fiercest storms proclaiming, "I'll do it, just watch."

## INGENIOUS STRATAGEMS

Altruism makes us upfront while teaching us that: 1. Leadership is not about titles and positions, it is about one life influencing another for the better. 2. Power is strength and the sharing of that strength with others. It makes us want to change the world through our enterprises, even though debacles may abound. Over the years difficult choices

may arise, but our convictions should guarantee that we need not get bogged down by malfeasance, remembering at all times to keep the bigger picture in mind. An altruistic lifestyle is not one that presupposes being part of the populist gang or hobnobbing with glitz and glamour, but working for the upliftment of the community and the world at large, making a positive impact through example and instruction. When intermittent Altruism evolves into a habit, acceptance that people will hate us, rate us, shake us, break us is, imperative. But how strong we stand is what makes us. A plaque on the wall of the Manager's office, at an Orphanage that the School interacted with, during an Outreach Programme, as part of its Curriculum (a yearly feature for the Staff and students) read thus, "Work for a cause, not for applause. Live Life to express, not to impress. Don't strive to make your presence noticed, just make your absence felt." What better words can there be to reveal the true facets of Altruism. A prerequisite to Altruism is to understand that: While every problem may not have a solution, and every event may not have a justification, we need to have a vision, burn with ambition and realize making it come true is our mission!!. We must make use of our knowledge without putting a price tag on our souls. Whilst closing our ears to a cowardly mob we must stand and fight if we think we are right. We ought to have a sublime faith in ourselves because then we are able to have sublime faith in humankind. Philosopher Khalil Gibran captured the essence of Altruism when he wrote: [20] "You give but little when you give of your possessions. It is when you give of yourself that you truly give."

## STUCK LIKE A DOPE ON A THING CALLED HOPE

Author, Motivational Speaker & Professor of Special Education Leo Buscaglia reiterated [21] "I want to be remembered as somebody who lived life fully and with passion. I've been asked to write my epitaph and I have always thought that the perfect one for my tombstone would be, "**Here lies Leo who died living**." While the past few months have seen rapid change, utmost confusion and upheaval, the future hinges on HOPE. The Covid19 pandemic worked to bring out the hitherto unseen altruistic side of many, even that of children, who are usually cocooned from reality. Their genuine concern effected schemes to care for animals, especially pet dogs, who sadly are bearing the brunt of the mass exodus of migrants, from the city of Mumbai. Altruism is a

spirit that heals all diseases, redeems lives from destruction and brings back sunshine as if after stormy rain. The biggest stumbling blocks to an altruistic lifestyle are empty rhetoric questions like: 'What can I, a single person do? What do I have to offer? I don't have much to spare or share….'There are always going to be people who will be smarter, richer, more talented and wealthy, even achieve more. That is not the problem. Our job is not to be the best, it is to do our best. The underlying fact is, Altruism is not limited to one's bank balance but to one's heart. Academician Clive S. Lewis taught [22]"You are never too old to set another goal or to dream a new dream."

## TRUE STORIES

From the onset of the lockdown many religious institutions, NGO's and individuals in their personal capacity have been reaching out to affected countrymen. Be it through monetary contributions, cooking of food, offering the use of vehicles to deliver food and even of themselves for service in whatever capacity, people did and continue to do their bit. Reports about 'Home Gardening' becoming a natural destresser abound, allowing Nature to heal itself, while we are stuck indoors. These acts must not stop, we must not let them stop. Corona should transfigure into 'KARUNA' and become an intricate part of our daily lives. Just as India was waking up to the severity and taking stringent measures to curb the spread of the virus, a resident of our building (a drug addict) returned, leaving his Rehab program midway (nothing novel). A family from the building has taken the onus of offering him breakfast, lunch and evening tea daily, while the Church sends him supper. His usual inarticulate response is a muffled sound resembling 'Thanks'. One day much to the lady's trepidation (which soon dissipated) he held her hand, and enunciating as clearly as he could, stopped her in her tracks with these words, "I will always remember you. When people wanted to send me to the cop station your family stopped them. You gave me so many masks. You feed me every day. I will remember this and be thankful. I love you" and he ambled away, beedi stub in hand, his usual disoriented self. The family has no words to explain this encounter, nor do they want to try too hard deciphering it, they just want to savour it. Is this much ado about nothing? Not quite. Those words, came straight from the heart of

the addict, during an epiphany of sorts he was having. Truly Life is not measured by the number of breaths we take, but by the moments that take our breath away.

## AN ODE

To all altruistic warriors who make it look so easy

Your caring hearts, listening ears, thoughtful words, gentle tears, Help to lift the heavy load, of weary souls along Life's road. Your genuine care and concern show your love as words can never do. These are the things that build and bless, that lead to mankind's happiness. You may not be a superstar, your talents may be few, But God in His enablement works out His will through you. You do multiple deeds of kindness, whose end you may not see, They will reach like widening ripples, down a long eternity.

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# 17

# A Study of Perception of Teacher Trainees Towards Strategies Adopted to Cater to Diverse Needs of Teacher Trainees by College of Education

*Dr. Vaishali M. Sawant**

**Abstract**

The National Assessment and Accreditation Council (NAAC) has been promoting quality as a holistic and participatory process. The concerns towards catering to diversity among the students get reflected in the assessment and accreditation process of NAAC. However, to give further impetus and focused attention towards these issues, the NAAC advocates that all accredited higher education institutions may follow the action plan for catering to the diverse needs of students. This action plan based on the inputs received from UGC, NIEPA and Rehabilitation Council of India (RCI) primarily aims at making suitable interventions in the higher education sector, which may help the learners to complete their academic journey in a smooth manner and be ready to face the world of work.

The paper makes an attempt to throw light on the various strategies adopted by Hansraj Jivandas College of education as per the guidelines provided by NAAC in the form of strategies adopted by the institution to retain the diverse student population admitted

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to the institution, catering to the diverse learning needs of the students, activities envisioned in the curriculum for student teachers to understand the role of diversity and equity in teaching learning process, practices that help teacher trainees develop knowledge and skills related to diversity and inclusion and apply them effectively in classroom situations.

This paper also highlights the findings of the study that attempts to study the perception of teacher trainees towards strategies adopted to cater to their diverse needs by college of Education.

## INTRODUCTION

The NAAC has always believed in making quality education a continuous process and the various initiatives of NAAC are aimed at sustenance of quality in NAAC accredited institutions. As a part of post accreditation initiatives, the NAAC is providing guidelines on a regular basis to accredited higher education institutions with various innovations, sustainable and healthy practices. The NAAC has been promoting quality as a holistic and participatory process. According to NAAC guidelines 2010, the higher educational institutions (HEIs) are expected to satisfy the needs of the students from diverse backgrounds including backward community as well as from different locales. The HEIs are expected to make additional efforts to bring in students from varied categories, cater to their special learning needs by initial assessment of their learning levels, in addition to understand possible variations over years and how and what is done to promote such students. Diversity of learners with respect to their background, abilities and other personal attributes will influence the extent of their learning. The teaching learning practices of the HEIs are rendered to be relevant for the diverse learner group. The learner-centered education through appropriate methodologies such as participative learning, experiential learning and collaborative learning modes, facilitate effective learning. Teachers provide a variety of learning experiences, including individual and collaborative learning. Interactive and participatory approaches, if employed, create a feeling of responsibility in learners and makes learning a process of construction of knowledge.

The NAAC, as desired by the MHRD has already initiated the process to integrate the above guidelines with self-study report formats. Since this process will take its own course, as an interim step, it has decided to request all assessors to take into consideration the compliance of these guidelines while arriving at the judgement on institutional quality during the process of Accreditation as well as Reaccreditation.

## CHALLENGES FACED BY TEACHER TRAINEES COMING FROM DIFFERENT BACKGROUNDS AND WITH DIVERSE NEEDS

The challenges faced by student teachers who apply for B.Ed degree programme are as follows:

- Ill equipped to understand the admission process
- Fear of Common Entrance Test and the English language Ability test
- Come from diverse backgrounds with respect to economic, religious, linguistic, social, financial and educational
- Ill equipped with respect to skills required for group work
- Lack of study skills

### Strategies adopted by College of Education to help teacher trainees to face the varied challenges

The general strategies adopted by the institution to cater to diverse learning needs of teacher trainees are as follows:

| **Measures adopted by the college to manage the diversities existing in the college** | |
|---|---|
| **Religious and cultural diversity** | • The college emphasizes on the celebration of days of national importance and festivals of all religious groups with the purpose of teacher trainees getting to know the importance of every festival which in turn develops a secular attitude among the teacher trainees.<br>• The college prayer sung by all teacher trainees and staff emphasises the singularity of all the religions and cultures.<br>• The college has 'Sarva Dharm Prarthana' as one of the unique and special features of the assembly conducted at the beginning of the day. |

| | |
|---|---|
| | • The other prayers sung on different days of the Assembly focus on human values and oneness and stress on following the righteous path and the enhancing the strength of the mind. |
| **Economic diversity** | • The administrative staff counsels the teacher trainees on various schemes of the Government and other Trusts for availing finances and freeships. The teacher trainees are guided to fill up the online forms of the Department of Social Welfare offering financial aid to deserving candidates..<br>• The teacher trainees who find it difficult to pay the fees together are allowed to pay in instalments.<br>• The college garners support from NGOs to help needy teacher trainees get financial support in form of interest free loan and donations |
| **Regional and Linguistic diversity** | Teacher trainees admitted are from various regional backgrounds with some of them having completed their schooling through vernacular medium and have difficulty in communicating in English. To overcome such linguistic barriers the following strategies are adopted<br>• The 'Speak Well Club' of the college conducts communication skills classes – to equip the teacher trainees with skills in spoken and written English.<br>• The college is equipped with a language laboratory wherein the teacher trainees are trained in spoken language skills under the supervision of an expert teacher during the group work session.<br>• The teacher trainees are given constructive feedback in order to improve their communication skills during pre-practice teaching sessions, simulated lessons and practice teaching. Also feedback is given by staff to enhance written language skills during assignments, class test, prelims, essays, reports. |

| | |
|---|---|
| **Physically challenged** | • The college has a provision of two lifts along with the side bars on the staircase<br>• The peers are sensitized towards the problems faced by such teacher trainees and are encouraged to accommodate and assist them whenever they require.<br>• They are allotted with practice teaching schools situated in the close vicinity of their residence.<br>• During practice teaching they are allowed to conduct their lessons in the classes situated on the ground floor.<br>• Those who have difficulty in conducting session standing are permitted to be seated while conducting the practice lessons. |

Besides the above, other strategies to meet the diverse needs of the students are as follows:

- Provision of Mentor groups
- Provision of Buddy system
- Varied methodologies adopted by staff members during lectures
- Support provided by Grievance cell of the college
- Support provided by staff for personal and academic problems
- Workshops conducted by college to enhance personality
- Teaching aids used by staff members
- Accessibility of Physical infrastructure of college
- Knowledge provided about diverse and different needs of school students
- Training provided to meet differences in school students
- Extension activities, community work carried out to bring awareness about differences

## OBJECTIVE OF THE STUDY

To study the perception of teacher trainees towards strategies adopted to cater to their diverse needs by college of Education.

## METHOD AND INSTRUMENTATION

For the present study, the researcher made 4 point rating scale based on all the strategies adopted by the college of Education to cater to diverse needs of the teacher trainees was used. The content validity of the tool was established by five experts and the tool was modified as per suggestions given by the experts.

The study was conducted on 100 first year and second year teacher trainees of Hansraj Jivandas College of Education. The researcher conducted the study toward the end of Semester 2 and semester 4 of the B.Ed. programme so as to ensure that the teacher trainees were exposed to the varied strategies implemented by the college to cater to the diverse learning needs of the trainees.

The following table indicates the perception of teacher trainees towards the strategies adopted to cater to their diverse needs by the college of Education.

**Table 1: Percentage of Agreement or Disagreement of Teacher Trainees Towards the Strategies Adopted at the Time of Admission and Fees Payment**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Counselling at the time of admission facilitated the admission process | 75% | 22% | 3% | 0% |
| 2 | Counselling for freeships helped me in procuring the freeships | 74% | 22% | 4% | 0% |
| 3 | Counselling for procuring documents for admissions helped me immensely | 72% | 227% | 0% | 0% |
| 4 | Support provided by college to help economically disadvantaged is appreciated | 63% | 333% | 4% | 0% |
| | **Total** | 97.56% | | 2.44% | |

## Finding

Table 1 reveals that 100% of the teacher trainees positively perceived the strategies adopted at the time of admission and fees payment and 2.44% teacher trainees negatively perceived the strategies adopted. The reason for the negative perception could be a few teacher trainees could not get the financial support due to criteria of the NGO for providing financial support to economically backward students.

The following table indicates the perception of teacher trainees towards the strategies adopted to cater to their diverse needs

**Table 2: Percentage of Agreement or Disagreement of Teacher Trainees Towards the Strategies Adopted in the Daily Schedule to Cater to Cultural, Religious and Linguistic Diversities**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Assembly conducted at the beginning of the day has helped me in accepting and respecting diversities | 62% | 38% | 0% | 0% |
| 2 | Celebration of festivals and days of national importance has helped me in accepting and respecting diversities | 56% | 44% | 0% | 0% |
| 3 | Speak well club to help students enhance their communication skills has benefitted me to a great extent | 63% | 37% | 0% | 0% |
| 4 | Enrichment strategy used to enhance written performance has benefitted me to a great extent | 57% | 38% | 5% | 0% |
| | **Total** | 98.75% | | 1.25% | |

## Finding

Table 2 reveals that 98.75% of the teacher trainees positively perceived the strategies adopted in the daily schedule to cater to religious and linguistic diversities. 1.25% of teacher trainees have negatively

perceived the strategies adopted in the daily schedule. This may be due to negative approach of teacher trainees towards activities conducted by college beyond academic activities.

**Table 3: Percentage of Agreement or Disagreement of Teacher Trainees towards the Strategies Adopted to Cater to Social Diversity**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Provision of Mentoring facility by teachers has being very encouraging and motivating for me | 64% | 33% | 3% | 0% |
| 2 | Help provided by Buddy system has facilitated my journey as a student | 60% | 36% | 4% | 0% |
| | **Total** | 96.5% | | 3.5% | |

## Finding

Table 3 reveals that 96.5% of the teacher trainees positively perceived the strategies adopted to cater to social diversity. 1.22% of teacher trainees negatively perceived the strategies adopted to cater to social diversity. This negative perception of teacher trainees may be due to approach adopted by the buddy or the mentor while supporting or mentoring activity.

**Table 4: Percentage of Agreement or Disagreement of Teacher Trainees for the Strategies Adopted to Enhance Academic Performance**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Methodologies adopted by staff members during lectures has helped me to do enhance my academic performance | 54. % | 46% | 0% | 0% |
| 2 | Feedback and support provided by staff members during practice teaching, microteaching, simulated lessons has helped me to give better lessons | 56% | 44% | 0% | 0% |

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 3 | Teaching aids used by staff members help in better understanding | 53% | 47% | 0% | 0% |
| | **Total** | 100% | | 0% | |

## Finding

Table 4 reveals that 100% of the teacher trainees positively perceived the strategies adopted to enhance their academic performance.

**Table 5: Percentage of Agreement or Disagreement of Teacher Trainees for the Strategies Adopted to Cater to their Personal Growth**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Support provided by Grievance cell of the college has being very encouraging | 52% | 46% | 22% | 0% |
| 2 | Workshops conducted by college has enhanced my personality | 46% | 44% | 0% | 0% |
| | **Total** | 98% | | 1% | |

## Finding

Table 5 reveals that 98% of the teacher trainees positively perceived the strategies adopted for their personal growth. 1% teacher trainees negatively perceived the strategies adopted for personal growth. This may be due to the fact that some teacher trainees do not appreciate any other activities besides academic activties.

**Table 6: Percentage of Agreement or Disagreement of Teacher Trainees Towards the Strategies Adopted to Cater to Enhance Internship Experience**

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 1 | Knowledge provided about diverse and different needs of school students has been beneficial during school internship | 54% | 343% | 3% | 0% |

| Sr No | Strategies Adopted | SA | A | D | SD |
|---|---|---|---|---|---|
| 2 | Training provided to meet differences in school students has been beneficial during school internship | 51% | 449% | 0% | 0% |
| 3 | Extension activities, community work carried out helped to bring awareness about socio economic differences | 49% | 445% | 6% | 0% |
| | **Total** | 97% | | 3% | |

### Finding

Table 5 reveals that 97% of the teacher trainees positively perceived the strategies adopted to enhance internship experience. 3% of the teacher trainees negatively perceived the strategies adopted to enhance internship experience as the college conducts community and extension for more number of hours than specified which is not perceived positively by the teacher trainees

## DISCUSSION OF THE FINDINGS OF PERCEPTION OF TEACHER TRAINEES TOWARDS STRATEGIES ADOPTED TO CATER TO THEIR DIVERSE NEEDS

Based on the findings, it can be concluded that majority of the teacher trainees have positive perceptions towards the strategies adopted by the college as the strategies have been beneficial to them to meet their varied needs. This findings are in accordance with the finding of study conducted by Lizzio, A., Wilson, K. and Simons, R. (2002), wherein it was observed that students' perceptions of their current learning environment were a stronger predictor of learning outcomes. The findings also match with the study conducted by Lea, S., Stephenson, D. and Troy, J. (2003), wherein it was found that students generally held very positive views of student-centered learning. The findings of this study are also in line with the study conducted by Sakthivel, P. Rajendran, G., Raju, R. (2005) wherein the results showed student satisfaction with quality academic practices adopted by the institution.

The positive perceptions of students towards quality practices of the institution ensures meeting the learning outcomes of the programme.

## CONCLUSION

Finally to conclude, the above strategies adopted by the college not only caters to the diverse needs of teacher trainees but makes them aware of such strategies which are essential in any educational institution. Also the teacher trainees see the benefits of such strategies to meet their own needs, this acts as an inspiration to adopt such strategies in any educational institution that they would join in future.

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## Benchmarking Quality and Accrediting Institutions of Teacher Education: The Revised NAAC Framework

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**Dr. Sheela Philip** is a graduate of the University of Mumbai in Biochemistry and Chemistry, has done Masters in Sociology, and has a Postgraduate Diploma in Higher Education. She was awarded the doctoral degree in Education by the University of Mumbai for her pioneering work comparing the effectiveness of Indian School Boards in empowering students with soft skills. Dr. Philip has been an educationist for nearly 30 years and has been a member of the faculty at the **St Teresa's Institute of Education** since 2004. She is the **Coordinator of the Internal Quality Assurance Cell** of this institution. She served the University of Mumbai in various capacities. She is a member of the **Syllabus Revision Committee** at the graduate and postgraduate levels in education. She has been **Field Coordinator of the Department of Life-Long Learning and Extension**, and created project designs in the areas of **Survey of Women's Status** and **Environment Stewardship**. She was appointed **Chairperson for Science Pedagogy** at the Centralized Assessment Programme (CAP). She is a recognized teacher at the Masters level in the University of Mumbai for the **Institute of Distance and Open Learning.** She was Visiting Faculty for paper setting and assessment for Diploma in Integrated Education, **SNDT Women's University**. She served as Visiting Faculty at prestigious national institutes such as the **Institute of Chemical Technology** and the **Ali Yavar Jung National Institute of Speech and Hearing Disabilities**. She was a member of the **Forum for Promoting Inclusive Education of Children with Hearing Impairment**.
Dr. Philip has authored books on **Mental Wellness** and **Soft Skills**.

Driven by a passion to empower student-teachers to be responsible agents of change in an ever-changing world, **Associate Professor Dr. Giselle Ann D'souza** has served at St. Teresa's Institute of Education from July 1999 to date. Her academic credentials include the M.Sc. M.A. M.Ed and Ph.D degrees with NET and SET qualifications. With zeal to hone her skills in counseling, she pursued a specialized counseling course in the **Robert Carkhuff Model of Counseling** conducted by the Institute of Human Technology, Heart to Heart Counseling Centre, India.

She has been an awardee of the National Merit Scholarship by the University of Mumbai and the Teacher Fellowship by the University Grants Commission, New Delhi**.** She is a recognized Post Graduate teacher of the University of Mumbai for the M.Ed. and is also a lecturer for the M. A. Degree (by papers) in Education conducted by IDOL, University of Mumbai. Dr. D'souza has been a part of several syllabus revision committees as well as a paper setter and moderator at the Centralized Assessment Program of the University. **'Stressed!....But Not Out'-Helping Students Realize the Power of Self** is her first publication based on the findings of her Ph.D study in the area of 'Stress in students in relation to their personality correlates'. She has organized training sessions on 'Stress Management' for students, teachers, parents and administrators in schools and colleges across the city. A number of her research endeavors in the area of student stress, creative teaching strategies, parenting styles and the self-concept of adolescents have made their way to journals of National and International repute. Her areas of expertise include Stress Management, Transactional Analysis, Addressing the Needs of Adolescents, Principles of Effective Teaching and Developing Interpersonal & Communication Skills.

As a member of the faculty she has been the coordinator for the NAAC Peer Team visit in 2016 when the college was re-accredited with an A grade and a CGPA of 3.27. She has designed the ISI, EXCEL, IDEA and RIPPLE models for curriculum transaction. In her tenure as lecturer, she has conceptualized and organised the All-Mumbai Inter-school/Inter-collegiate Environment festival Planit-E, initiated the Annual Big-5 CCE Symposium and spearheaded projects like the Go-Green with Tetrapak Campaign in collaboration with RUR and the Save Water-Safe-Water Initiative in association with SOSVA which have met with laudable success.

₹ 695/-

ISBN 978-93-89875-31-7

9 789389 875317

APH PUBLISHING CORPORATION
4435-36/7, Ansari Road, Darya Ganj,
New Delhi 110002 Email: aphbooks@gmail.com