IMPROVEMENT OF TEACHING AND LEARNING THROUGH CURRICULUM

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ABSTRACT

Curriculum, as a cultural and system-specific artifact, outlines mathematics teaching and learning activities in school education. Studies of curriculum and its changes are thus important to reveal the expectations, processes, and outcomes of students' school learning experiences that are situated in different cultural and system contexts. In this article, we aim to propose a framework that can help readers to develop a better understanding of curriculum practices and changes in China and/or the United States that have been reported and discussed in articles published in this themed issue. Going beyond the selected education systems, further studies of curriculum practices and changes are much needed in helping ensure the success of educational reforms in different cultural and system contexts

Keywords: *Cross-national studies, Curriculum research, Mathematics textbook, National studies, School mathematics*

1 Introduction

School education is organized to provide students structured learning experiences. Curriculum, as an outline of teaching and learning requirements in content and performance, is put in place to structure students' learning experiences in schools (Schmidt, McKnight, Valverde, Houang, & Wiley, 1997). Efforts to pursue excellence in mathematics education have thus led to the continued changes in mathematics curriculum, which has been the focus of educational reforms in many education systems including the United States over the past several decades (e.g., National Council of Teachers of Mathematics [NCTM], 1980, 1989, 2000; Senk & Thompson, 2003) and China (e.g., Liu & Li, 2009). Ironically, curriculum has not been a focus in mathematics education research. For example, the first *Handbook on Mathematics Teaching and Learning* (Grouws, 1992) published by NCTM did not have a single chapter on mathematics curriculum. As the curriculum issue has attracted more and more attention with the release of NCTM Standards (1989, 2000) and US National Science Foundation's efforts in promoting and evaluating new curriculum material development, the *Second Handbook on Mathematics Teaching and Learning* (Lester, 2007) now contains one chapter specifically related to curriculum. Apparently, research on mathematics curriculum is long over due and is not consistent with the status of curriculum that has been constantly taken as a focus of major education reforms. Further development on research related to curriculum policy and practices is inevitably needed, as issues in mathematics curriculum can and should be examined carefully and systematically both within and across education systems. This theme issue is such a small step toward the development of this much-needed area of educational research.

This issue, as a thematic collection of studies, consists of seven articles that individually present and discuss curriculum practices within or across China and the United States, followed by one commentary article. The selected focus on the case of China and the United States is not intended to exclude other education systems. Rather, like many other good collections of articles, it is not possible to examine and discuss curriculum practices and changes all over the world in a single issue. Given the fact that curriculum is a cultural- and system-specific artifact (e.g., Griffiths & Howson, 1974), we tended to focus on the cases of China and the United States to illustrate possible similarities and differences in curriculum practices and changes between the East and West that can hopefully inspire more and systematic research efforts. Thus, the themed issue contains five articles (or called national studies) that specifically focused on curriculum practices and changes in either China or the United States, as well as two cross-national studies that compared

curriculum practices and associated factors related to China and the United States.

The selected focus on China and the United States is also due to the fact that both China and the United States have undertaken large-scale reforms in school mathematics over the past decade. Although the motivation and context behind the reforms in these two systems were not the same, curriculum changes have been again taken as a focal aspect (e.g., Liu & Li, 2009; Senk & Thompson, 2003). Relevant curriculum practices and approaches devoted to the improvement of mathematics teaching and learning cover a range of topics, including the development and analysis of intended curriculum and textbooks, curriculum transformation and connections from the intended to the achieved, teachers' use of curriculum materials for developing classroom instruction, and teachers' learning from curriculum materials. As curricular practices and approaches are cultural value-loaded activities (e.g., Li, 2007), focusing on one specific practice or approach may highlight one system over another. Thus, this issue is designed to be open to examine different curricular practices and approaches that are valued and used in ways to improve mathematics teaching and learning in China and the United States.

Initiating and editing of this themed issue builds upon our on-going research interests in mathematics curriculum studies (e.g., Kulm, 1999; Li, 2000, 2007). As editors of this themed issue, we also bring our own extensive experiences in mathematics education research and practices in China and the United States. At the same time, we often find ourselves in a position of continuously learning something new from our contributors and collaborators especially in this topic area of mathematics curriculum. Such learning led us to believe that articles published in this themed issue are valuable sources of information for international readers to learn and reflect upon some culturally-valued practices and changes in mathematics curriculum.

2. Understanding curriculum practices and changes in an international context: a framework

Since the Third International Mathematics and Science Studies (TIMSS), school curriculum and its impact on teaching and learning have received increasingly more research attention in the international context (e.g., Schmidt, McKnight, Valverde, Houang, & Wiley, 1997; Senk & Thompson, 2003). In fact, TIMSS was the first large-scale international study that explicitly examined curriculum materials and specified the process of curriculum transformation as a guideline to conceptualize the relationship between curriculum analysis and students' learning (e.g., Schmidt et al., 1997). While students' performance was taken as the achieved curriculum, what is provided in curriculum guidelines was treated as the intended curriculum. The results obtained from TIMSS curriculum studies illustrated the unique value of examining curriculum practices in an international context. At the same time, however, curriculum policy and approaches practiced in one education system can not be simply adopted in a different system and cultural context (Li, 2007). Even within the same region such as East Asia, Li and Leung (2009) pointed out that curriculum practices and changes bear dramatic differences across six high-achieving education systems in that region (i.e., Hong Kong, Japan, Mainland China, Singapore, South Korea, and Taiwan). The influence of social-cultural and political factors on curriculum practices and changes suggest that a better understanding of curriculum issues needs to go beyond the academic aspect of curriculum itself. Here, we thus propose a framework that aims to facilitate readers to develop a better understanding of curriculum practices and changes in an international context.

The importance of knowing and understanding social-cultural and system context suggests that curriculum practices and changes need to be examined and understood at both macro and micro levels. In particular,

A. At a macro level, we refer to the social-cultural and historical aspect of curriculum practices and changes that needs to be emphasized. If we call such social-cultural

and historical aspect as the context of curriculum practices and changes in discussion, it is often the case that a specific national or cross-national study of mathematics curriculum may lack a needed description and elaboration of such a context. To develop a better understanding and further discussions of curriculum practices and changes as reported in this themed issue, it is important that readers attend to contextual information about China and the United States even if not every individual studies reported in this issue provide such information as needed. Thus, we provided some general background information as Section 3 about culture, history, and philosophy related to the case of China and the United States.

B. At a micro level, we refer to the academic aspect of curriculum practices and changes that are often the focus of every individual studies. As readers can surely learn a great deal from reading each individual studies reported in this issue, we will share with readers how we structure these individual studies in this themed issue in Section 4. A summary of each individual article will then be included to highlight curriculum practices and changes at the micro level.

3. Knowing the cultural and system context when learning about curriculum practices and changes from this themed issue

The review and analysis of comparative studies on school mathematics curricula and teaching requires multiple perspectives. The comparison of mathematics education in Western and Eastern countries, especially with a focus on the US and China requires specific and general considerations of culture, history, and philosophy. It seems important to use these lenses in order to understand and interpret the research work that is reported in this issue. In this section, we attempt to identify some general cultural, historical, and philosophical factors that have led both the US and China to their current positions. While being aware that these perspectives are a brief summary of complex ideas, we take the stance of the "average" educated person in attempting to make sense of the challenges and opportunities in improving mathematics education. Clearly, the East and the West in general, and the US and China specifically are becoming more interdependent economically and politically. Education can be the bridge and catalyst in addressing the challenges we face. Given the importance of technological and scientific advances as possible solutions, mathematics education is the cornerstone for building a future mutual advancement.

3.1 The importance of culture

Recently, attention to the cultural aspects of US and China comparative research has received considerable attention. While there is still much to be done in studying cultural factors, there is at least some understanding of some key cultural variables on the part of mathematics educators both in the East and West. This growing awareness of cultures has been advanced by more frequent visits from both sides, as well as conferences, and the increasing number of graduate students from China who study, then stay on to do research and teach in Western universities. These activities have produced scholarly publications, as well as professional and personal interactions, all of which contribute to greater shared understanding of how mathematics education works in the East and West. The depth, breadth, and direction of the flow of this information, as well as its eventual influence, is complex and probably unknown at this time. For example, the early work of Stevenson and Stigler (1992), and the publication of *The Teaching Gap* (Stigler & Hiebert, 1999) were read widely by US mathematics educators. Some projects that applied ideas such as "lesson study" have been tried, but the overall influence on classroom mathematics instruction appears to be minimal. On the other hand, visits on both sides and Chinese mathematics educators' study of US research on problem solving and teaching for understanding seems to have had some influence on the development of the China's new mathematics standards (Liu & Li, 2009). These standards reflect many goals and objectives in common with US mathematics education standards (NCTM, 2000).

Both of these examples illustrate that culture is a critical intervening variable, with the potential to enhance or pose significant barriers to attempts to "import" change. Attempts to

build US teachers' mathematical knowledge and improve practice through activities that depend on close cooperation, intensive study and critique of colleagues, and long-term improvement of common lessons fly in the face of a US educational organization and culture that is administrator-controlled, focused on individual classroom instruction, and driven by textbooks. On the other hand, building the ideas of inquiry, problem-solving, and student-centered instruction into the development of China's new standards was more successful. These changes were built onto a strong foundation of learning basic skills, using a centuries-old philosophy of Confucianism to provide support for more modern ideas. Finally, the tradition of a national curriculum provided the structure and culture for having these ideas translated into classroom practice.

3.2 The importance of history

The histories of the East and West are vastly different. In particular, the history of the China and the United States, measured in centuries versus decades, are in sharp contrast with each other. The perspective of history is seldom considered seriously in the United States, whether the discussion is about politics, economics, or education. In US mathematics education, there has been a pendulum-like swing between emphases on "new math" of the 1960s, pure math or applications, skills or understanding, cooperative or whole class instruction, and many other forces. In China, at least in somewhat recent history, there have also been significant swings of a different type from early Western influence in the early part of the 20th century, the Soviet influence of the latter 20th century, the Cultural Revolution and the recovery from it in the 1960s to the 1980s, and the present development of a modern educational system. There is much in common in the goals for mathematics education reform in the US and China during past 30 years which have been especially important for both countries in forming the shape and directions of current work and reform.

In the US, the pendulum-like swings had devastating effects mainly because the reforms often called for drastically different approaches than was either currently being done, or the way most teachers had learned mathematics themselves. Further, the lack of sufficient time and support, and the decentralized system meant that only a small fraction of schools and teachers actually implanted the reforms in any meaningful way. Those schools and district that were able to make changes were often the more well-funded ones, leading to further disparities and gaps in achievement. The current "standards-based" mathematics education reform, which began in the 1990s may be an exception to the time spent in attempts to implement the changes – it has been nearly 20 years in progress. The relatively large amounts of funding and the requirement for annual testing have been a somewhat effective, albeit heavy-handed approach to forcing states and districts to make reforms. It would be hard to make a case that the recent reform has been a success overall.

3.3 The importance of philosophy

The philosophical stances and outlooks between the East and West are clearly different in many ways, even to the novice observer. In teaching and learning, many ideas have contrasting views, including the importance of innate ability, hard work, individualism, and motivation. Although research has provided insights into some of these factors, much is yet to be discovered about how they impact the differences in mathematics achievement, or how good ideas or practices can be transferred from one system to another.

In the United States, a lack of consensus on the philosophical foundations about teaching and learning mathematics is a fundamental issue that makes reform so difficult to achieve in the US. The "Math Wars" episode of the last decade was the most apparent indicator of this lack of consensus (see, for example Latterell, 2004). Educators have tried to build empirical evidence for the implementation of a set of ideas that include "constructivist" learning theory, socio-cultural learning contexts, and instructional technology. These ideas have been embedded through the reform activities into mathematics curriculum standards, teaching education and development, and textbooks and tests. Many of these ideas are anathema to mathematicians who have a content-based philosophy, believing that the content and skills rather than methods and students should

determine the mathematics curriculum and instruction. Classroom teachers, who are caught somewhere between these approaches, tend to teach as they were taught, or how they are told to teach by administrators who are concerned about high-stakes test results. In previous reforms as well as the continuing current one, this lack of a fundamental philosophical foundation makes real implementation of change nearly impossible.

In the East generally and China in particular, the centuries of tradition and values about education form a foundation for reforms. Even the devastating impact of the Cultural Revolution has been overcome to a great extent by returning to earlier philosophies such as those of Confucius and the early academics. The current reform values self-discipline, hard work, and the importance of learning and understanding the fundamentals mathematics through applied practice of skills (Wong, 1998). This fundamental philosophy is a foundation for newer ideas such as the use of technology, individual curiosity and motivation, and inquiry-based teaching. Using the power of a very top-down and monolithic system, the development and implementation of new mathematics standards, textbooks, and instructional strategies are implemented by schools and teachers. Even though the standards and some of the instructional approaches may be new, they do not replace the traditional basic values that are in place.

4. What might we learn from this themed issue on curriculum research?

The seven articles included in this themed issue cover a range of topics using a variety of perspectives. Apart from these variations, these seven articles also present either national studies (in China or the United States) or cross-national studies (related to China and the United States) of curriculum practices and changes. Our understanding of the nature of these studies, developed after reading each article, prompts us to structure the seven articles included in this themed issue into two clusters: (1) national studies that focused on curriculum practices and changes either in China or the United States, (2) cross-national studies that took a cross-national comparative approach in examining and discussing curriculum issues related to China and the United States. This organization of articles also follows well the framework proposed in Section 2 that can hopefully help readers to be aware of different social-cultural contexts when reading these articles in different clusters.

4.1 Cluster 1 – national studies

Five articles published in this themed issue focused on curriculum issues in either China or the United States. While the articles by Li, Chen and Kulm (2009) and Li, Zhang and Ma (2009) focused on curriculum practices in China, the other three articles (Hirsch & Reys, 2009: Lloyd, 2009; Nie, Cai, & Moyer, 2009) examined and discussed curriculum practices and changes in the United States. Brief summaries about these five articles are provided below.

With a focus on Chinese teachers' practices in lesson planning, Li, Chen and Kulm (2009) examined mathematics teachers' daily lesson plans and associated practices and thinking for teaching fraction division. As part of a larger research project, both teachers' lesson plans and interviews with participating teachers were analyzed and reported in this study. The results present several aspects in Chinese teachers' practices that are different from their American counterparts. In particular, lesson planning was an important process for Chinese teachers to transform textbook content into a script unique to different teachers and their students. Chinese teachers thought carefully on several aspects of lesson plans, including content, process, and their students' learning. By following textbooks carefully, Chinese teachers' lesson plans were similar in terms of some broad features even for teachers from different schools. At the same time, however, teachers' lesson plans differed in details and specific approaches used. For Chinese teachers, lesson planning is not only a process of preparing for teaching lessons but also a professional development process of learning from textbooks and colleagues.

Li, Zhang and Ma's article (2009) describes and discusses approaches and practices in developing mathematics textbooks in China. Given the fact that textbooks play a very important role in guiding mathematics teaching and learning activity in China, developing high-

quality textbooks has been emphasized in China. Apart from some unique features in Chinese textbook development practices in the history, textbook development practices over the years have also accumulated some valuable experiences and guidelines. This article highlights some common practices and approaches developed and used in selecting, presenting and organizing content in mathematics textbooks. With recent curriculum reform taking place in China, the authors also present and discuss the features of some newly developed high school mathematics textbooks.

With a conception of curriculum similar to that used in the TIMSS study (Schmidt et al., 1997), Hirsch and Reys (2009) outline and discuss different forms of curriculum that have been used to stimulate school improvement in the United States. The specification of different forms of curriculum allows the authors to discuss various progresses that have been taking place from time to time in curriculum development in the system. Sample developments include the assessment of students' yearly learning progress to hold school systems accountable in the form of the assessed curriculum. Moreover, because the United States has a decentralized education system, there is a great variation in the curriculum guidelines or frameworks (as the intended curriculum) across various states. A recent movement has been taking place in developing a set of common core state mathematics standards for grades K-12. As highlighted by the authors, such new developments specify changes in different forms of mathematics curriculum in its policy and practices in the United States.

In her article, Lloyd (2009) reports a study of five US pre-service teachers' interactions with school mathematics curriculum materials and what pre-service teachers might learn about the innovative curriculum materials. The study reveals that pre-service teachers' interactions with the recently developed curriculum materials let them become well aware of special features of the innovative curriculum materials, as they are different from traditional curriculum materials that pre-service teachers were accustomed. However, these pre-service teachers held different views about the use of such innovative curriculum materials for mathematics instruction, with some ready to accept but others felt discomfort and frustration at times. Nevertheless, use of curriculum materials had been viewed by each participating teacher as important for improving their understanding of mathematics.

By focusing on the ideas of variable, Nie, Cai and Moyer (2009) compare different textbooks' approaches in organizing and presenting the topic. In particular, the authors selected and compared one NSF-funded Standards-based middle school curriculum material with a more traditionally-based curriculum material (Glencoe Mathematics). The study reveals that these two selected curriculum materials differ in many ways in presenting and organizing the content topic for teaching and learning but present a consistent approach in developing the concept within each of the curricula. While CMP introduces the concept of variable more from a function perspective, Glencoe Mathematics presents the concept of variable as placeholders or unknowns and uses them primarily in equations. Although the approaches used by either curriculum may have certain advantages and disadvantages, the authors argued that none of these two curricula show clearly the various uses of variables that are important for students to learn.

4.2 Cluster 2 – cross-national studies

There are two articles that take a cross-national comparative approach in analyzing and discussing curriculum issues related to China and the United States. While Fuson and Li (2009) discuss the complexity in understanding students' learning with the textbooks from a cross-cultural perspective, Li, Chen and An (2009) compare selected textbooks from China, Japan and the US in terms of their presentation of fraction division.

In their article, Fuson and Li (2009) present an in-depth analysis of selected textbooks on the topics of single-digit and multi-digit addition and subtraction. In particular, cross-cultural issues in linguistic, visual-quantitative, and written-numeric supports for mathematical thinking are highlighted in analyzing why Asian textbooks, especially a representative Chinese textbook series as analyzed in this

study, may benefit students' learning of these topics. As the authors pointed out, the analysis reveals not only possible differences in textbooks as caused by linguistic issues but also what visual-quantitative supports may be needed to compensate for possible linguistic disadvantages. The analysis illustrates the complexities in understanding textbooks' impact on students' mathematics learning cross-culturally.

Li, Chen and An (2009) analyze selected Chinese, Japanese and US mathematics textbooks to examine their ways of conceptualizing and organizing content for the teaching and learning of fraction division. Building upon previous textbook studies, the authors conducted a systematic fine-grained analysis of textbooks to reveal cross-system similarities and differences in opportunities and challenges embedded in textbooks for teaching and learning. The results provide a glimpse of the metaphors of mathematics teaching and learning that have been employed in Chinese, Japanese, and US textbooks. In particular, the results from the textbook analyses demonstrate that Chinese and Japanese textbooks share many similarities in conceptualizing and presenting the topic but differ from US textbooks. While procedures and operations of fraction division are targeted in all these textbooks, the conceptual underpinnings of fraction division are given different attention and developed in different ways.

4.3 Commentary article

In his commentary article, Silver (2009) discusses the value as well as difficulties inherent in cross-national comparisons of mathematics curriculum and other aspects of educational practices and outcomes. Through the discussion, it becomes apparent that educational researchers need to be clear about what is compared, why compare, how to compare, and how the comparison results might be used. As an important case illustrated in this article, the analysis of tasks' cognitive demands shows the feasibility and value of learning about classroom instruction from cross-national comparative studies. Further relating to the articles published in this journal issue, the author highlights and discusses one illustrative example of what readers might learn from cross-national comparative analyses and how such analyses could be used to sensibly inform policy discussions related to changes in mathematics curriculum, teaching, or teacher preparation.

5. Significance and limitations

By focusing on China and the United States as two contrasting system and social-cultural contexts, this issue aims to examine curriculum practices and approaches valued and used both within and across these two education systems. As we have described earlier, this themed issue has a limitation in selecting the two education systems from the East and West. However, the two education systems were not selected by chance, but because they certainly represent a variety of approaches that can be found in the East and West. We believe that, even within this limitation, this themed issue examines and illustrates different curriculum practices and approaches which are developed and utilized in efforts to pursue excellence in school mathematics education in an international context, albeit only with selected two education systems.

Through examining and discussing curriculum practices and changes either within or across China and the United States, this themed issue provides educators and policy makers an opportunity to reflect beyond what can possibly be understood within a specific system context. In particular, this journal issue is not only to report specific research findings within either system, but also to provide a platform for developing a better understanding of relevant curriculum practices and its impact on mathematics teaching and learning in different social-cultural contexts. We hope that this themed issue can stimulate further study of curriculum practices and changes in many more education systems, which actually are much needed in helping ensure the success of educational reforms in different cultural and system contexts.

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A STUDY OF TEACHING AND LEARNING PROCESS AT UNIVERSITY LEVEL

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ABSTRACT

This paper focus on post graduate university level teaching pose different array of opportunities and challenges. Teaching and learning process is often associated with the conventional methods which are appreciated and followed by the teachers. However, limited empirical aspect is included in this process. Theoretical and conceptual teaching unfolds the basic concepts related to the subject. Practical spectrums which are included in the teaching – learning process, indicate the aspects of understanding the need of learning designer's perspectives and the relevance for those involved in the process of professional coerces in higher education. It is also a way of gaining knowledge by means of direct and indirect observation or experience for the teachers. This teaching pedagogy was applied to gather information on the implementation of teaching practicum in order to improve the quality of teaching learning of students. This is empirical knowledge on the teaching – learning process and the roles designer (course teacher), students and experts on empirical learning projects, and the findings have relevance for those involved indecision-making, planning and development of such projects in higher education.

***Keywords**: learning designer, teaching – learning process, Practicum, empirical*

Introduction

One of the foremost necessities of 21st century in higher education is developing mechanisms for the teachers to implement and use practical spectrums motivating students to use higher-order thinking skills. This can be used when students use multifaceted concepts related to the different courses.

Professional courses insist students to think and practical implementation of their learning. They would have to understand the facts, infer them, and connect them to other concepts in the practical settings. Higher-order thinking skills (HOTS) go beyond basic observation of facts and memorization.The teacher is expecting that the students to be evaluative, creative and innovative.This concept are initiated by American education. This method emphasizes on critical thinking of students. This is an advance stage of learning those attained by rote memorization. HOTS include synthesizing, analyzing, reasoning, comprehending, application, and evaluation. Developing higher order thinking skills insist students to the process of connecting one concept to another concept. The teachers can develop teaching strategies to enhance higher-order thinking skills through designing certain practicums. By doing this, the teachers can connect the students to the concepts already known to them with what theyare learning in the class and able to connect it with the professional environment. Practicum Teaches students to make inference with the "real-world" situations. This method of teaching and learning is with the reference of various taxonomies of learning, created by Benjamin Bloom in his book, "Taxonomy of Educational Objectives: The Classification of Educational Goals." Higher-order thinking skills are reflected by the top three levels in Bloom's Taxonomy: analysis, synthesis, and evaluation.

Bloom's Taxonomy and HOTS

Bloom's taxonomy is taught in a majority of faculty development programme. Bloom's aim was to promote higher forms of thinking in education, than just teaching students to remember the facts related to the topic/ subject (rote learning).

Different levels of taxonomy's were introduced by this method. The revised levels of this taxonomy are, Remembering, Understanding, Applying, Analyzing, Revising and Creating. LOTS, lower order thinking skills is dealing with memorization, where-as, HOTS initiates understanding and applying that knowledge. In HOTS, it is expected that the students can apply the knowledge and skills they have learned in the new contexts. It serves as the feature shifting the students from dependent learning to

independent learning. The teachers must design the practicum's committing to an honest reflection of existing teaching practices. This can begin this journey with a careful analysis of current instructional strategies, irrespective of grade level of the course.

Practicum Activities for developing 'Higher Order Thinking' in students

Teaching practicum activities are part of classes to implement the curriculum. Commonly, any course includes regular university syllabus, course lectures, textbook readings, homework assignments, and concurrent assessment at institute and university level.

Recently, the higher education systems understood the importance of developing the workforce which can implement theoretical concepts in the practical world. This requires extensive collaboration between classroom teachings with the outer world. These connect inevitably poses serious challenges for established institutional structures, conventional methods of teaching and learning and the roles of those involved in this process of course development and delivery. In this study, the attempt was made to understand the methods of transforming academic work into high-quality functions and activities leads to build the effective human resource for the industry. This skilled human resource can shape the organizations and help them to develop their force.

To get hands on experience and enrichment of theoretical knowledge gained during the classes, the practicum activities can be conducted by the course teacher. However, these activities must be fairly concrete, well planned and executed in extremely professional manner. These practicum activities may vary as per the varied nature of the courses.

A practicum could be as short as a few hours in a semester, or it can be spread to 15-20 hours a week. Practicum can involve one/ multiple course teachers depend on the nature / scope of the practicum activity conducted for the students. In most practicum experiences, course teacher/ teachers can follow combination of observation and classroom assistance. Use of practicum can be very satisfying for the educators to imbibe the subject related knowledge to the students.

At times, course teachers can simply observe the class, and record their observations. They can interact with the students later and provide feedback to the students. The course teachers can involve the outside expertise for development/ assessment of the practicum. They can discuss about the objectives of the practicum and the best way to achieve the same.

The course teachers may teach for few hours in the classroom, they can ask students to develop contents for the practicum, the teacher can review the same and then students can use it.

Nature and background for developing the practicum

The class teacher can consider following points while using practicum for teaching the course.

- Use innovative and immersive ways e.g. use of computer labs, internet and the local recourses which add value to teaching and learning process.
- Be firm but ready to implement the changes.
- Emphasize on close attention and feedback to the students enhances the quality of practicum.
- The course teacher can be a mentor / guide for all the students. This motivates and encourages the students for completing the practicum activities planned by the teacher.
- The course teacher can distribute the work in equal duration. Heavy / excessive work can be avoided for quality output by the students.
- Every practicum must be well planned however; the course teacher may face some glitches during the execution of the practicum. The course teacher can pursue the practicum and refine the idea and activity for next lecture/ batch.

Preparing for practicum to develop HOTS

A. Stage I Planning:

- **Study the subject matter**: A course teacher can develop a study material for the subject allotted to him/her. The material cannot be at very complex level. It must be suitable to the understanding level of the students.
- **Course teacher can get clear understanding on the "point**": practicum and the objectives tobe achieved through the same. Well- thought/ defined characteristics increase the value of the practicum.
- **Create a clear synchronization between practicum designed by you and the students**: It is the prime duty of the course teacher to develop clear understanding between the students. There is a need for explaining the theoretical concepts, to develop the need of systematizing, refining or expanding, terms and scientific explanation required for better understanding and implementation of the practicum.

B. Getting along with Students

- **Be organized:** It is teacher's responsibility to involve the students by motivating them for attending the lectures, distributing handouts, handing in assignments, setting up a system and code of conduct of the class and practicum activities.
- **Be firm, but consistent and fair:** Remember a fundamental point about teaching that the students are in no position to judge in advance about the practicum activities conducted by you. They have to learn it before they know whether it's worth learning. Course teacher have to keep students on task and learning so they can eventually find out whether what you're teaching is worth learning.
- **Sample Case study:** The author had developed the sample case for one of the subject. This will help the subject teachers. This detailed information is attached for the reference of other teachers:

Practicum used to teach the course -306 E (Lab in Training)

Introduction to the course

This course examines the purpose and responsibilities of the training and development function within organizations. It provides students with perspectives on the significance of training and development for improved productivity, efficiency and overall organizational performance. Students will learn and practice steps involved in designing, delivering and evaluating training. This subject was taught to the MBA students who are pursuing their specialisation in Human Resource Management (MBA HR specialisation students).

This course is internal subject which was assessed at institutional level. University examination will not be there for this course. This course is the small extension of the full credit subject, Human Recourse Management which was learned by the students in second semester. The total assessment has been done for 50 (fifty) Marks.

Programme Educational Objectives (PEO's) of the MBA Program are as per SPPU

1. To equip the students with requisite knowledge, skills &right attitude necessary to provide effective leadership in a global environment
2. To develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy &Society, aligned with the national priorities.
3. To develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem.
4. To harness entrepreneurial approach and skill sets.

Objective of the course

1. To make students understand training need analysis.
2. To help students to design Training Programmes and decide the appropriate training methods.
3. The students can understand the proper methods to execute the training programme.

4. The students can able to figure out to use the feedback for further improvement.

Course outcomes: At the end of the course students will be able to

1. Develop analytical and critical thinking required to access Training Need Assessment of theorganization.
2. Possess the management skills required to develop training modules based on the TNA in anorganization.
3. Apply the knowledge to decide the training methods suitable to achieve objectives with reference to TNA.
4. Apply the knowledge to decide the training methods suitable to achieve objectives with reference to TNA.
5. Understand the procedure of deciding the process of training need analysis and methods to deliver training programme for different cadres in an organization.
6. Able to analyze the organizational objectives and link the training schedule/ calendar of theorganization with the same.

Teaching Pedagogy used by the course teacher

The practicum was conducted in different manufacturing organizations in Pune. This qualitative study employed document analyses, practical implementation of the training program by the students and quality discussion on the students experience and feedback shared by the participants and the industry experts. The faculty members organized analysis, findings, and discussion around the implementation of teaching practicum.

1. A detailed teaching plan was prepared by the course teacher. The same is shared to thestudents.
2. Teacher discussed the theoretical aspects of course to the students in the classroom. (usedPPT , Case studies, videos)
3. Simultaneously, All the Students need to decide the training topic and discuss the same with the course teacher and fellow students of the class.
4. All the training topics are related to the behavioral training which can be applicable to all typesof industry personnel.
5. The students prepared training proposal for different organizations. The same is discussed withthe other students. Everyone discussed on the topic and gave suggestions.
6. The students prepaid training modules. The objectives where set, based on that the training contents were developed. Students prepared PPT, added the link of the videos to be shown during the training, games to be conducted, time frame of the training programme.
7. The course teacher discussed the same with individual students and suggested changes (if any).
8. The course teacher identified the organizations and forwarded the training topics prepared bythe students.
9. The organizations selected the topics and time and venue is decided with the mutual concurrence.
10. Students deliver the training programme at different organizations.
11. Corporate authorities shared their feedback with the students about their performance.
12. Course faculty discussed with the students about their training experience and shares the feedback on the performance.

Outcome of the Practicum

1. **Improved Critical Thinking Skills in Students**:

Critical thinking is indispensable in real life, especially in the field of education, because critical thinking in education is the process of thinking to make decisions from various foundations such as evidence, methods, criteria, context, and conceptualization and relevant sources of information. In this practicum, the students understood the methods followed by the organizations to identify the training need analysis (TNA). To develop the training further their conceptual skills are developed

2. **Enhanced creativity and innovation abilities:**

The ability to create and innovate is amongst the most important skills required of employees. In the competitive environment organizations and employees needs to adapt the rapidly changing environment in order to keep up with the pace of the dynamic situations. This Particular exercise helped students to understand the concept of training and development. Process of developing training module suitable for the different organizations and different designations.

3. Learning becomes more interesting:

Students were encouraged to engage with higher-order thinking skills, this requires far more of their attention and utilizes more of their conceptual capacity. As a result, learners are more engaged in professional development, and online learning courses which implement these activity types are often far more applicable in real-life scenarios.

4. Build transferable skills for real-life scenarios:

When learners are engaged with higher-order thinking skills through practicum's they can apply this knowledge after the training is over. Learning tasks which encourage divergent thinking develop skills which can be applied to a broad range of situations, and are not bound by specific topics or the requirements of job roles.

5. More opportunities for collaborative learning :

These kinds of activity based thinking evolve creativity and collaborative learning. This activity creates conducive and collaborative learning. While finding ways for learners to work together can be challenging, tools such as discussion boards and information sharing do allow for participants to share their ideas during the learning process.

6. Build confidence of the students:

This practical assignment creates and develops the confidence among the students. They gone through the process of developing training modules on different topics and conducted this training module to the different managers. They received corporate feedback and inputs for the further development. It ensures the overall development and confidence building amongst the students.

Conclusion

Teaching and learning with practicum is to synthesize, evaluate, and process information in new ways. This is a key for preparing students for the world outside the institute. The teachers can learn to modeltheir thinking processes and "make the invisible visible" to students. With the tightening of the higher- order thinking thread, the literacy weave will be complete. Conventionally low-order thinking goals enforced by drill and repetition activities. However, developing higher thinking skills can develop teaches the students to become the problem solvers. primarily education has favored the acquisition of knowledge, especially among elementary school-age children, over the application of knowledge and critical thinking. These advocate that without a basis in fundamental concepts, students cannot learn the skills they will need to survive in the work world. On the other hand reform-minded educators, meanwhile, see the acquisition of problem-solving skills—higher-order thinking—to be essential to this very outcome. Progressive curricula, often creates disagreement from traditional educational mindset. However, modern curricula emphasize HOTS, over strict rote of memorization as the means to help students achieve their highest potential.

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CRITICAL STUDY OF FINANCIAL ISSUES IN INDIA

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ABSTRACT

This paper attempts to assess critically the main problems of municipal finances in India and to bring out the challenges that the municipalities face with respect to revenue generation and expenditure management. The main findings suggest that the urban local bodies in India are confronted with lack of proper decentralization of functions and finances, inadequate revenue generation, expenditure shortfalls leading to poor service delivery. It also analyses the suggestions and recommendations that have been offered in the literature to cope with these critical challenges relating to urban finance.

Key words: *Financial Problems, Management, Revenue, Critical challenges*

Introduction

About 377 million Indians comprising about 31 per cent of the country's population live in urban areas, with an average annual addition of 8 million (Census 2011). As far as the proportion of urban population is concerned; India is behind the other emerging economies like China (45 per cent), Indonesia (54 per cent), Mexico (78 per cent) or Brazil (87 per cent) but is closer to Burma (34 per cent) and Guinea (35 per cent). The share of persons living in urban areas in India rose by 3.4 per cent in the decade 2001 to 2011 while it had risen by only 2.1 per cent in the decade 1991 to 2001. Recent projections show that by 2031, about 600 million Indians will reside in urban areas, an increase of over 200 million in just 20 years (Twelfth Five Year Plan) If we rank the cities in the world by population, Mumbai and Delhi are among the top ten and Kolkata among the top 15 (if population density is the criterion for ranking) all these three Indian megacities are among the top 6 cities in the world (World Urbanization Prospects, 2011 revision, online data UN, Department of Economic and Social Affairs).

Estimates by the Central Statistical Organisation, available for a few years, indicate that the share of the urban sector in Gross Domestic Product (GDP) of India increased from 38 per cent in 1970–71 to 52 per cent in 2004–05. The mid-term appraisal of the Eleventh Five Year Plan projected the urban share of GDP at 62–63 per cent in 2009–10, which is at present around two thirds of the GDP and it is likely to become 75 per cent in 2021 (India 2008).

There is a concentration of the urban population in large cities and existing urban agglomerations. As per census 2011, there are 53 million plus cities accounting for about 43 per cent of India's urban population. Also, the increase in the number of towns in India from 5,161 in 2001 to 7,935 in 2011 can be primarily attributed to the growth of small towns around agglomerations. A recent study by the World Bank also shows that the peri-urban areas in the vicinity of large cities are centres of intense economic activities (India Urbanisation Review: Urbanisation beyond Municipalities 2012). In the Twelfth Five Year Plan, there is a shift of focus in policies with equal importance on small and big towns rather than concentrating on big cities.

A look at the key indicators of the major urban services reveals that there is a failure to achieve even moderate success in service delivery. 70.6 per cent of the urban population has individual water connection with duration of water supply ranging between one to six hours a day. Most Indian cities do not have water metering system for residential establishments. Non revenue water accounts for 50 per cent of water production. Even partial sewerage network is not there in 4,861 cities. 13 per cent of urban households do not have any form of latrine, less than 20 per cent of the road network is covered by storm water drainage, scientific disposal of solid waste is not there in most of the cities (Twelfth Five Year Plan).

The Report of High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services estimates Rs 3.92 million crores as the investment needs to provide urban services conforming to national benchmarks for urban infrastructure over a period 2012-31.The operations and maintenance costs would amount to another Rs.2 million crores (Ahluwalia HPEC 2011).

Municipal revenues constitute a minimal share in India's GDP. The Eleventh and Twelfth Finance Commissions data show that the ratio was around 0.7 per cent which according to Thirteenth Finance Commission has gone up to 0.94 per cent in 2007-08.The share of municipal revenues in combined state and central revenues have declined from 3.71 per cent in 1990-91 to 2.43 per cent in 2000-01(Mohanty et al 2007). Thirteenth finance Commission data reflects that the municipal tax to GDP ratio is a meager 0.5 per cent as compared to central tax to GDP ratio at 12 per cent and states' tax to GDP ratio at 5.6 per cent for 2007-08, while Property tax to GDP ratio is only 0.25 per cent.

The problem of financing infrastructure needs in the Indian cities becomes more relevant in the context of inclusive growth because there is a considerable dependence of the rural sector on urban development. With the urban sector contributing an overwhelming share of growth, an overall sustained growth for the economy places a lot more demand on the performance of the cities (Twelfth Five Year Plan). The efficiency in financial management is the main driver of performance of the cities. In what follows we attempt a detailed literature review on the problems and prospects of urban finances in India.

Urban Finance in India

Own revenues, consisting of tax (of which the property tax is a major source) and non tax revenues declined to 53 percent of the total revenues of Municipalities in India in 2007-08 from 63 per cent in 2002-03 (Twelfth Five Year Plan). The rest is accounted for by grants, assignment and devolution by State Governments, grants from Central Government and Finance Commissions. Various ways of augmenting the resources of the municipal bodies in the country, including essential reforms in the property tax system and adequate exploitation of user charges and fees for various services delivered as well as ways of strengthening and improving central and state transfers to urban local governments, are explored in Rao and Bird (2010, 2011). With respect to financing urban infrastructure, judicious use of development charges and effective collections from public lands are recommended in general. In addition, development of the municipal bond market is also advocated for financing capital expenditures. Similar recommendations are made in the Twelfth Five Year Plan. The Twelfth Five Year Plan proposes that charges should be levied on the additional floor space index (FSI) provided. Further, the charges on the additional FSI and the land-use conversions should be at last 50 per cent of the actual land value of the area in question. Also, the Twelfth Five Year Plan proposes that apart from the revenues collected from the FSI, urban local bodies (ULBs) collect other "land value based instruments" like development charges, betterment fees etc.

In what follows we would summarise the literature on different sources of municipal revenues in India. In the absence of a Municipal Finance List, we attempt to collect the different tax and non tax sources from Municipal Acts which are listed in section 1 and 2 of the Appendix. We start with property tax which, being identified as a major source of own revenues, has been the main subject of research on urban finance in India. We also cover studies on other taxes, non tax components and user charges. The issues related to intergovernmental transfers and role of Finance Commissions are also discussed in the light of the available literature. Some issues related to municipal borrowing from different sources are also covered.

Property Tax

Studies on property tax focus on a few crucial areas in India like assessment methodology, coverage of properties, collection efficiency and amending the rent control laws to overcome assessment constraints. Jawaharlal Nehru National Urban Renewal Mission

(JnNURM) and Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) gave a lot of emphasis on property tax reforms, particularly the assessment component, stressing upon mapping of properties using the Geographic Information System (GIS), making the system capable of self-assessment, rationalizing exemptions and improve collections to about 85 per cent. As a consequence of this, research and evaluation studies are undertaken assessing the impact of property tax reforms on municipal finances in India. However, even after the first phase of JnNURM is over, the results are not satisfactory (Twelfth Five Year Plan).The main recommendations include improved methods of property tax assessment, accompanied by appropriate administrative reforms. The property surveys and usage of GIS technology should happen as a complete package to ensure full coverage of the properties. Computerization of property taxes, regular revision of rates, more user friendly tax system and making tax enforcement a priority are also proposed.

Assessment of properties is one of the biggest challenges for the ULBs which are plagued with issues like unscientific methods, lack of transparency and issues with incomplete records of properties. There are no formal and standard practices for having the property counts. Apart, from these there are also political interests that prevent the collection of the property taxes leading to low collection efficiency (Gnyaneswar 2009).

The ULBs in India are in different stages of implementation of reforms in valuation of properties ranging between purely Annual Rental Value and Capital Value based on unit area characteristics. There are ULBs who apply a hybrid method of rental valuation based on location and characteristics of the building, and tax is calculated on the basis of this rental value. A review of property tax reforms (National Institute of Urban Affairs (NIUA), 2010) on the basis of 10 selected cities viz. Ahmedabad, Bangalore, Bhubaneswar, Chennai, Hyderabad, Indore, Kolkata, Ludhiana, Patna and Pune shows that cities like Patna, Indore, Chennai, Hyderabad, Bangalore and Ahmedabad have already moved to the "unit area assessment system" while Kolkata and Bhubaneswar are yet to implement the unit area system (although the municipal laws have been amended). Patna and Ludhiana have continued with the system of Annual Ratable Value (ARV). Out of these 10 cities, 6 cities have a collection efficiency of property taxes of more than 70 per cent. Bangalore has experienced a sharp rise in the property tax revenues after moving to the unit area based approach, while Ahmedabad has benefitted through technical advancements like usage of the GIS system which led to the highest number of assessed properties per 1,000 population.

Legal framework plays a prominent role in realizing the gains from a transformation in the valuation methods. Gnaneshwar (2009) in his study based on municipal corporations from Andhra Pradesh, Tamil Nadu and Karnataka established that the gains in Karnataka from moving to a self assessment property tax system has been the maximum because of the fact that in Karnataka, the reform has been executed with a revision in the legal framework whereas in the other two states the existing legal provisions were used. There also have been substantive efforts on the part of the Government of India (GOI) to bind the states for introducing the reforms by taking e-governance initiative.

Madon et al (2004) looks at the Bangalore City Corporation's (BCC) initiative to reform its property tax system and the interaction between the "local contingencies" and "external influences" in implementing such reforms. Although in nominal terms, property tax revenues have grown by 10.4 per cent from 1988-1994-95, the inflation adjusted figures reflect stagnation.

The authors claim that despite there being many initiatives to have better implementation of the property taxes, benefits were only realized when the Self Assessment System was started. The study finds that despite facing constraints in terms of "institutional capacity", the BCC was still able to implement the self assessment system. The feat was achieved by its efforts to mobilize various local and global actors who had diverse interests. The paper emphasizes on the building of such networks.

The administrative aspects to implement reforms in property tax are very important to get desired results. On the basis of a study on Andhra Pradesh, Mohanty (2003**)** finds that **a**lthough tax reforms and strategy depends on the "pre conditions" certain factors like close involvement of the tax paper, tax-service linkage, incentives for filing of tax returns, disincentives for non-filing, tax education are very important. The study claims that although it is useful to have uniform slab rates for homogeneous properties, it can be regressive in case of heterogeneous properties.

"Correction of inequities" in the tax system could be very useful and could enhance revenues. A greater focus on "compliance" brought in a lot of revenues for Hyderabad.

The fiscal and distributional implications of the existing and the possible future assessment reforms in property tax are worth exploring in the context of Indian cities. Lall and Deichmann (2006) throws some light on the issue for two states Karnataka and Maharashtra, with Bangalore and Pune as the study sample, The authors find that the reforms that get the property tax base closer to the market value have significant and positive implications for revenue generation.

Also, these reforms do not have any negative implications for the poor. However, although these reforms are good as a first step intended towards greater efficiency of the property taxes, structural issues like improved valuation, increasing the buoyancy of the taxes etc still need to be looked at. Unless structural issues are resolved, improvements in the administration will do only little to make the property tax a useful revenue option. The paper finds that in Pune and Bangalore where the tax assessment gets linked to the "market rental or capital values", have a very high prospect of augmenting the revenues from property taxes. In fact, in Pune the use of market value is seen to have "redistributive impacts" with lower taxes in areas where services are poorer. Also, the authors find that a one-time move to an area based system from the previous rental-value based system expanded Bangalore's revenues from property taxes by about 62 per cent. If "market rents" were adopted (i.e from an area based approach to market rent approach), then revenues earned from Pune would rise by about 55 per cent while for Bangalore the gains would be about 33 per cent. While studies like Mohanty et al (2007) and various reforms agenda prescribes changing over to valuation based on unit area characteristics, there is a view which challenges the faith in the market based valuation system in India as there is no clear cut definition of a "market value" which might harm the tax yields (Mathur et al 2009).

A recent paper (Bandyopadhyay 2013b) compares the implementation of the property tax reforms in two major metropolitan cities in India, Delhi and Bangalore. Both the cities have implemented the property tax reforms and have shifted to the unit area method of assessment.

However, while property tax collection rose for Bangalore after the implementation of the reforms, Delhi experienced a fall in the number of properties assessed and property tax collection after the implementation of the reforms. Further, property tax to GSDP ratio also increased for Bangalore while it fell for Delhi. The paper finds that policy as well as administrative factors was responsible for such contrasting outcomes. Better structuring of the tax rates, better coverage and collection efficiencies achieved through better tax administration, better service delivery and a relatively more stable property market (in Bangalore compared to Delhi), were found to be the major reasons as to why property tax reforms succeeded in Bangalore while they failed in Delhi.

The issue of progressivity is also discussed briefly. After the shift to the unit area method, most areas have a progressive rate structure of property taxes, barring some places who still have a flat rate (like Ludhiana) (Rao 2013). Author (2013b) also points out that a comparatively more progressive rate in Delhi after the unit area method was implemented is also responsible for loss of revenues in Delhi.

As far as revenues from property tax is concerned, there are large variations in Indian Cities. In a study of 35 large corporations, Mathur (2009) finds that there are large inter-city variations with the Mumbai municipal corporation having per capita revenue of

Rs.1,334 while the Patna and Dhanbad municipal corporation had only Rs.25 and Rs.40. However, the study does claim that population size has a strong impact on property tax collection (with a correlation of 0.82). The total tax demand over the study period has shown some signs of stagnation reflecting limited inclusion of new properties and revision of rates. However, variables like growth of state's GDP or the ratio of state's tax to GDP have little impact on property taxes. A comparative study of urban finances in Jharkhand and West Bengal finds that per capita property tax in Jharkhand is much lower than in West Bengal (Bandyopadhyay 2011).Bandyopadhyay (2012) indicates to a wide variation in property tax collections in the ULBs within the state of Karnataka. As far as the relation with size of a city is concerned, there is no unique pattern which can be cited from the literature.

Collection Efficiency of property tax is low in Indian cities which is one of the reasons for low collections of property tax (Mohanty et al 2007, Bandyopadhyay and Rao 2009, Rao and Bird 2011). A study on 36 million plus cities in India finds that the average collection rate was only 37 per cent. Higher collection rates are found in Karnataka, Tamil Nadu, Kerala, and Andhra Pradesh. Bihar and Madhya Pradesh have very low collection efficiencies as is the case with Delhi. Corporations of Gujarat and Maharashtra though have higher per capita collections have lower collection efficiency (Mathur et al 2009). For Karnataka, the overall average collection efficiency of property taxes is 62 per cent, with the collection efficiency being the lowest in the smallest size class and the highest (65 per cent) in the medium size class cities (with a population of 25000-50000) with little variation across cities (Bandyopadhyay 2012).

Apart from the usually discussed problems of limited coverage, poor collection efficiency, problems with valuations, Rao (2013) stresses on the exemptions given to various properties. He cites the case of the Municipal Corporation of Delhi and observes that exemptions made to the lavish buildings of the bureaucrats were a major reason behind the failure of MCD's efforts to reform property taxes.

Octroi

Octroi has been an important source of revenues in Indian cities. The Report of the Committee on Octroi (1985) constituted by the Ministry of Urban Development recommended that it should be replaced by local taxes. The alternatives include surcharge on sales tax, entry tax, terminal tax, road tax, motor vehicles tax, etc. All the states, except Maharashtra, have abolished this local tax because of its distortionary nature. In Maharashtra it is still levied in Corporations. Octroi was abolished in different phases in different states of India and for the cities levying Octroi, it has been the most important source. In most of the cases, it has a higher share than property tax (NIUA 2010, Pethe and Lalvani 2011, Bandyopadhyay and Rao 2009, NIPFP 2007c).

After the abolition of octroi the main issue is the compensation of Octroi which has been tough for most of the state governments. In fact in Maharashtra one of the reasons why the Corporations still continue to levy octroi is the failure of the state to design a compensation scheme. For example in the city of Mumbai, half the revenues come from Octroi and the amount of octroi received is equivalent to the entire state's excise income which is very difficult to be compensated. Apart from the alternatives mentioned above, local value added tax (VAT), local business tax, professions tax have also been prescribed but faced political resistance on grounds of inter-jurisdictional disparities. However, progress on the implementation of compensatory mechanisms of Octroi in India is not satisfactory.

Other Tax, Non tax and User charges

The non tax revenue collections from cities account for only 0.13 per cent of GDP in India. (Rao and Bird 2011).Non tax and taxes other than the property tax have been neglected as potential revenue sources in Indian cities so far. According to Pethe and Lalvani (2011), in Maharashtra, water charges, license fee, entertainment tax are still an "untapped potential". Although we find that the shares of these components are quite high in many of the cities, no systematic study has been conducted to estimate the potential for these components.

The shares of non-tax and tax revenues are almost same, with non-tax revenues having slightly a higher share in the own revenues in the cities of Karnataka (Bandyopadhyay 2012). Non tax revenues have dominated the own revenue collections in Jharkhand and are distributed quite evenly across the population size classes. However, the per capita non tax revenue in West Bengal is about four times as high as in Jharkhand (Bandyopadhyay 2011). The importance of other tax and non tax revenues are also indicated in Rao and Bandyopadhyay (2009), Considerable potential in non tax revenues in all the five major agglomerations are conceived. In the study based on five urban agglomerations viz Delhi, Kolkata, Chennai, Pune, Hyderabad, it was found that for bigger Corporations the shares of non tax revenues in total revenues have a range between 9 to 64 per cent. For smaller cities this variation ranges between 22 to 47 per cent Even with a considerable share of non tax revenues, and huge untapped potentials in different classes of cities, very little attention has been paid to this component of revenues. There are methodological challenges in estimating the non tax base. Multiplicity of rates and heterogeneous base of non tax revenues are some of the major sources of problems. In most municipal laws provisions exist for levy of rents/charges for use of shop, stalls, slaughterhouses, burning ghats etc. In Karnataka there are also provisions for charges on public halting places, cart stands, cattle sheds. public bath houses etc. Wherever transport and electricity are provided by municipality, provisions exist for levying charges on the same. In certain cases, a distinction is made for residential and for non residential areas. However most of the items in the provision for tax (other than property tax) and non tax revenues listed are not actually levied by many of the cities in India (Sections 1 and 2, Appendix).

Mohanty et al (2007) recommends that a "'Municipal Finance Schedule' for assignment to the ULBs to match the list of functions included in the 12th Schedule. This list would include property tax including vacant land tax and taxation of Central and State Government properties (or service charges in lieu thereof), professional tax, entertainment tax, advertisement tax, business licensing fee or tax, motor vehicle tax or a share from the same, planning permission fee, development impact fee, betterment levy, a surcharge on stamp duty on registration deeds or a share from it and a proportion of the Value Added Tax. Transfer of a proportion of Value Added Tax has also been proposed in Bandyopadhyay and Rao (2009). The report of the High Powered Expert Committee (HPEC, 2011) also recommends having a Municipal list and transferring a share of goods and services tax (GST) to the local bodies.

One of the important components of non tax revenue is user charge which deserves special mention. User charges are still a recent phenomenon and there are not too many enabling provisions in the municipal laws. In Maharashtra, Karnataka and Andhra Pradesh, there is a provision for levying charges on water and sewerage rather than taxes on these, Mohanty et al (2007) finds that although Mumbai, Surat and Pune are some of the best performing corporations, they underutilize user charges and hence cost recovery is below 25 per cent.

User charges act as signals of the scarcity value to consumers (Bird and Rao, 2011). User charges are useful to the extent that they help in bringing about "efficiency" in revenue collection for the municipalities, helps in "rationing" of services and most importantly help the municipalities with more funds to work with. When it comes to levying a tax or a charge on a particular service, there are mainly two principles-the "ability to pay principle" and the "benefit principle". The "ability to pay" principle works on the theory that people who have more, should contribute more. On the other hand, the "benefit principle" refers to the theory whereby higher contributions are made by people who enjoy the services more than the others. "User charges" work on the "benefit principle".

The primary task in determining the pricing strategy is to determine the costs of the service in question. This involves estimating: a) the cost of a particular service; b) the cost of general public services in a locality and c) the general overheads of that municipality. The costs for a given service would vary across

municipalities but certain portions (the fixed elements) do not fluctuate too much. Location also impacts costs. Also, the section of the society that the service is catering to has to be kept in mind while estimating costs and then setting up the user charges.

For example, if the rich choose to stay away from the city, they should bear the heavy costs of pumping water. But if the poor live in the outskirts due to the urban housing being unaffordable, then it would be unfair to put the burden of charges on them. Further, the authorities also need to analyze if they want to include the capital costs while setting up the user charges. In certain cases, capital costs are funded by the general public revenues, capital grants etc, while the public pays for the operation and maintenance (O&M) costs. After costs have been ascertained, the feasibility of recovery of such costs is checked. For this, the nature of benefits accruing to the public and the extent of excludability of the service is seen. For example, if the benefit of a service is very direct and private, then the consumer would bear almost the entire costs of provision of such services.

After the costs have been ascertained, the best suited tariff scheme has to be selected. The range of tariff schemes includes flat rate tariff, unit rate charging, variable block pricing, seasonal rate schedule, marginal cost pricing, average cost pricing, two part tariff etc. While choosing a tariff scheme the criteria kept in mind are those of adequacy, fairness, simplicity etc.

User charges and the required hikes in them for cost recovery are likely to face strong resistance initially, but over time people appreciate such moves once the better service delivery from these revenues are realized. In Amravati though people initially opposed the hike in the water tariffs, 24X7 water supply has ensured that they pay the tariffs regularly (Ahluwalia 2012a). Also, proper user charges based on accurate meters (with proper billing procedures) can be beneficial for consumers. For example, the pilot project in Karnataka showed that with meters, people were paying lesser (with a consumption based payment system in place), than the fixed rate system in the absence of meters (Ahluwalia 2010).

Empirical evidence, though inadequate, shows that cost recovery in Indian cities is quite low. According to Mohanty et al (2007) 10 large corporations in their sample could recover less than 10 per cent of the cost of providing services through fees. In the other six corporations cost recovery was around 10 to 20 per cent. Only in 2 out of 25 corporations in the sample, cost recovery was more than 75 per cent.

Measures to augment local revenues, particularly user charges and non tax components), are evaluated in Bandyopadhyay and Bagchi (2013) with the case of Municipal Corporation of Delhi, the capital city of India. Introduction of congestion and conservancy charges and revision of rates for existing parking fees, one time parking charges, fees from mobile towers and property taxes were recommended but could not be implemented due to political and social resistance. Through a simulation based analysis, the authors find that with the implementation of these recommendations, increases in the own revenues could range between 10 per cent and 21 per cent while total revenue increases could range between 7 per cent and 15 per cent. The authors also find that own revenues would be able to cover about 77 per cent to 85 per cent of the revenue expenditure and total revenues would be able to account for about 74 per cent to 80 per cent of the total expenditure. Major share of gains would come from ‘one time parking charges’ followed by property taxes and other components.

Own Revenue Potential

Estimating the revenue capacity is very important to assess the financial strength of cities. There are methodological challenges as well as constraints in data for these estimations in Indian cities (National Institute of Public Finance and Policy (NIPFP) 2007 a,b,c,2008 a,b).However, studies have attempted to provide empirical estimations of underutilization of revenue potentials.

Bandyopadhyay and Rao (2009) in their study on five major agglomerations in India viz. Kolkata, Delhi, Chennai, Pune and Hyderabad which constitutes 15 per cent of India’s total urban population finds that all the

agglomerations have unutilized potential for revenue generation. The potential for the central cities of the agglomerations are estimated to be 79 per cent more than the actual while the smaller ULBs in the agglomerations are estimated to have 25 per cent more. Author (2011) estimates the total revenue potential for ULBs in the state of Jharkhand to be 77 per cent more than what is actually generated in the ULBs of the state.

Mathur et al, (2009) aims at estimating the property tax potential in India and also suggests the measures to tap that potential. The study estimates property tax revenues from 36 million plus cities (which accounts for about 35 per cent of the total population) in India. The study estimates property taxes to be somewhat around 0.16 per cent-0.24 per cent of GDP. The main recommendations suggest broadening of the tax base, establishment of the Central Valuation Board, indexation of property tax values, improving the collection efficiency by setting up a mechanism that helps to identify tax evasion and use of guidance values in assessing property values. The study pointed out that there remains huge untapped revenues on account of property tax in the country and to improve the situation, states should focus on improving coverage and collection efficiency. Property tax revenues could increase to an extent of three times as high as the present collections by bringing all cities to an 85 per cent coverage level from an average coverage ratio of 56 per cent and 85 per cent collection efficiency from an average collection efficiency of 37 per cent.

Transfers

Transfers consist of shared taxes between the municipality and the state government and grants from upper tiers of the government. Shared taxes are revenues based on Tax Assignment Rules. Entertainment Tax, Motor Vehicles tax, Stamp Duty/Surcharge are some of the common shared revenue sources which are not uniform across states. On an average, almost half of the total revenues of the cities come from transfers. While grants are more important sources for smaller cities, for bigger corporations, the proportion of shared taxes are higher (Bandyopadhyay and Rao 2009). Another study (NIUA 2011) reports that 66 per cent of the revenues for the ULBs of Bhopal, Ujjain, Bhubaneswar and Puri came from "non plan transfers". However, ULBs of Ahmadabad and Rajkot were fairly "self sufficient" while dependence on state funds has increased for Guwahati.

After 74th Constitutional Amendment, the 10th, 11th and 12 th finance commissions provided "adhoc grants" to the ULBs of India. However, the 13th finance commission made provisions for a "devolution package" whereby the grants would be now linked to the central revenues. Also, the 13th finance commission had introduced the "performance based grants". There were also other features like the proper budgeting, having a better system of proper administration at the local body level, having an electronic transfer system at the local body level etc. However, the ULBs have a long way to go in trying to exploit the performance based grants as these need certain conditions to be fulfilled (like empowering all ULBs to levy property taxes without any exemptions, having a State Property tax Board which would assist the ULBs in assessing property tax, having a Local Body Ombudsman who would look after complaint being addressed etc) and there is a need for proper guidance to the ULBs for the fulfillment of these conditions.

The grants provided by the Central Finance Commission (CFC) were mostly conditional and heavily relied upon the utilization certificates furnished by the ULBs. The State Finance Commission (SFC) grants were more unconditional in nature and were to be used for regular expenses. There have been delays in setting up of the SFCs and other administrative delays like delays in submitting reports to the SFCs, delays in submission of the Action Taken Report. Nonavailability of data is a constraint in the selected states (Madhya Pradesh (M.P), Gujrat, Tamil Nadu Orissa and Assam) and consequently surveys were required for collecting data (NIUA 2011). Further, the systems of grant in aid in the selected states were quite diverse in terms of the "non-plan transfers". For example, in certain cases the octroi compensation was considered as a part of the SFC's devolution package while others kept it outside the SFC's grants. For Gujrat the share of the SFC grants

in the "non-plan transfers" were low while there were about 30 types of specific purpose grants. Apart from the CFC and the SFC grants, there are other grants that are received by the ULBs from the upper tiers. However, in some states SFC funds were released without having the utilization certificates from the previous years (NIUA 2011).

Performance of the SFCs and the devolution of the powers to the ULBs are related. The Constitutional amendment provides that the SFCs should recommend on issues like distribution of the net proceeds from taxes, duties etc. between the state and the local bodies, the determination of taxes, tolls, duties, fees that could be assigned to the ULBs, the grant-in aid and the measures required to improve the financial position of the ULBs. Although the mandates are fairly broad, most states have struggled to provide the required guidance. However, Kerala and Tamil Nadu have mandated their SFCs to explore "the potential for borrowing by the ULBs, develop the criteria for sharing of costs of assets and institutions transferred to ULBs, and provide guidance for more effective local financial management and accountability as well as state incentives that can support higher local resource mobilization". There is this belief that the SFCs have not been able to play the "leadership role" in supporting decentralization. The report of the HPEC (2011) recommends in line of the Thirteenth Finance Commission to strengthen the SFCs by improving their capacity.

However, Mathur and Peterson (2006) find that in certain cases the SFCs' recommendations have not been heard by the state governments and if at all they have been heard, implementation has been poor. Also, despite the 74th Amendment providing for transfer of functions to the ULBs, they have only happened in a very limited manner and no proper "mechanism" has been put in place whereby the developing authorities and the ULBs can coordinate the future development activities of the cities. Further, the SFCs have failed to recommend the required changes in the fiscal powers of the ULBs but have emphasized a lot on the revenue sharing arrangements between the state and the ULBs by estimating what the ULBs would gain from the shared revenues and how much would they need to spend for even the minimum level of service delivery. Finally, the paper recommends setting up a workshop for assessing the SFC's reforms, undertaking an analysis for better structuring of the grant-in-aid, modernizing states' resource gap analysis.

Municipal Borrowing

Borrowing is considered to be a practical option for financing large infrastructure projects (Rao and Bird, 2011). Municipal borrowing is mainly confined to public institutions like Life Insurance Corporation of India (LIC) and Housing and Urban Development Corporation Limited (HUDCO).

Market based borrowing is not very common in Indian cities. Tamil Nadu provides a good example. The Tamil Nadu government has actively been involved in implementing the Tamil Nadu Urban Development Project since 1988. The International Development Agency (IDA) of World Bank was the main financer of this project and the Municipal Urban Development Fund (MUDF) was an important component of this fund. The MUDF performed well and its scope was broadened to have some private participation. This led to the formation of the Tamil Nadu Urban Development Fund (TNUDF) in 1996 under the Indian Trust Act. The MUDF was converted with the state government's contribution of around 72 per cent and private players' (like Industrial Credit and Investment Corporation of India (ICICI), Housing Development Finance Corporation (HDFC) etc) pooled in funds to have a contribution of about 28 per cent to create the TNUDF. Tamil Nadu Urban Infrastructure Trustee Company Limited (TNUITCL) manages TNUDF while Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) is the fund manager.

TNUDF uses mainly three lines of credit-world bank, Japan International Cooperation Agency (JICA) and Kreditanstalt für Wiederaufbau (KfW). They specify how much they would provide in terms of loans and how much in terms of grants. These lines of credit finance a part of the project while the remaining amount can come from the state government or through

market borrowings. Funding agencies provide funds to the GOI which are then transferred to the Tamil Nadu (TN) government. The TN government can transfer these as loans (by TNUDF) or by grants (these are capital grants where a part of the grant may also come from the international donors).

However, funds to the ULBs can also be made available through the Special Purpose Vehicles (SPVs). The Water and Sanitation Pooled Fund (WSPF) is an example of such SPVs. This was created as a debt fund through issuing bonds. These were unsecured in nature and were issued for 15 years. The funds were raised by TNUIFSL. The proceeds were given to the ULBs.

Although they were unsecured bonds, there were certain guarantees that were provided. Firstly, the ULBs needed to contribute to an escrow account through their revenue sources. Secondly, a separate fund was kept aside by the state for repayment known as the Debt Service Reserve Fund (DSRF). Thirdly, U.S Agency for International Development (USAID) guaranteed for 50 per cent of the total amount to be paid as principal and interest and the remaining part would be paid by the state government (by repaying the shortfall through the Bond Service Reserve Fund and deducting this amount from the respective ULB's share in the funds from the State Finance Commission). Also, the TNUIFSL would monitor the whole process and ensure timely repayment of the dues to the investors.

The TNUDF are used for a range of purposes for urban development, mainly focusing on urban infrastructure. TNUDF also aims at private participation in urban infrastructure, improving the *Municipal Finance in India: Some Critical Issues 13* finance management of ULBs enabling them to access markets and having grant funds for addressing urban poverty. The borrowers can be the ULBs or private institutions that provide for urban infrastructure and the eligibility criteria are well defined. Strong emphasis on escrow funds etc ensure timely repayment of borrowings leading to almost full repayment of loans.

An elaborate discussion on the evolution of municipal bond market in India is given in Vaidya and Vaidya (2010). Since 1994, the Indo-US Financial Institution Reform and Expansion (FIRE_D) project has been actively working towards developing an active bond based finances for the ULBs which has enabled the local ULBs to mobilize funds worth more than Rs12 million. This started with the taxable municipal bonds with the Ahmadabad Municipal Corporation (AMC) issuing bonds of Rs. 1000 million for financing a water and sewerage project of Rs. 4390 million. AMC was partially helped by its earlier steps towards improving its efficiency through better tax collection measures, having computerized accounting systems etcwhich in a way did some groundwork before the bond financing. These initiatives helped the AMC to have a cash surplus of Rs. 2,140 million by March 1999, from a deficit earlier.

Following AMC's example other cities (Nashik, Nagpur, Ludhiana and Madurai) have also floated such bonds. A remarkable feature of these bonds has been that they were not backed by any kind of guarantee by the state. (State guaranteed bonds were first issued by the Bangalore Municipal Corporation in 1997) However, the subscription depended largely on credit ratings and ULBs had to prove that they had sound financial positions with a strong revenue base, high collection efficiency etc.

Next came the tax free municipal bonds. The GOI had constantly been trying to give tax concessions on bond interests but that met with limited success. So, in 1999-00, the then Finance Minister announced that ULBs can float tax free bonds and in 2000 the central government amended the Income Tax Act (vide the Finance Act 2000) whereby the interest earned from bonds would be entirely tax free. The AMC was the first municipality to float these tax free bonds in April 2002, where bonds were issued for Rs.1000 million for water and sewerage projects.

However, access to capital markets is fairly limited for smaller local bodies. Also, there is a high transaction cost in accessing the capital markets. This led to the pooled finance system whereby small ULBs pooled in resources and then issued bonds. The first initiative in this line was WSFPF in 2002-03 where 14 municipalities came together and floated bonds

worth Rs.304 million and was backed by the credit enhancement system where the state and USAID guaranteed repayment. This was followed by the Government of Karnataka's initiative whereby eight municipalities came together and floated bonds worth Rs 1,000 million in 2005. The fund was called Karnataka Water and Sanitation Pooled Fund (KWSPF) and was supported by USAID guarantee.

Looking at the success of the pooled finance system in Tamil Nadu and Karnataka, the Pooled Finance Development Fund (PFDF) guidelines were introduced by the GOI and the FIRE-D project so that the ULBs could access the market funds for creation of urban infrastructure and also undertake the required reforms to create efficient urban centers. The JNNURM, a flagship urban investment program of GOI encourages ULBs to link the projects with market-based financing. Also, the Central Finance Commission (CFC) along with the support of the State Finance Commission is supposed to provide important recommendations on how to augment the resource base of the municipalities. One of such important recommendations came from the 13th CFC report where the grants would be linked to the "divisible pool" rather than the "ad-hoc grants" provided earlier. Also, although the total grants would be increased by four-times, part of the grant would be linked to the performance of the municipalities.

Expenditure Management and Fiscal Gaps

Karnataka was the first to have a system of measuring and monitoring of the urban services by setting up the Municipal Reform Cell (MRC) in 2004. This was the first initiative by any state government to introduce service level benchmarking. The main feature of this was the use of information technology(IT) for monitoring and governance with fundamental administrative reforms at the local government level (Ahluwalia 2012b). Subsequently, the Ministry of Urban Development also came up with Service Level Benchmarking framework. Once the extent of adequacy of services in physical terms is determined, expenditure requirements on them can be analysed. Composition of expenditures is not uniform across Indian cities. Also, expenditure per se does not mean much unless we can assess the extent of misuse component in it. Pethe and Lalvani (2011) finds that corporations in Maharashtra are more inclined towards the "core service" than on the local public goods, with a 39 per cent share of core services in the total expenditure in 1999-00. The highest expenditure component has been "general administration", pensions etc, although the trend has seen a decline. On the other categories, the expenditure on education has declined while the expenditure on public health has remained at about 5 per cent for some time.

According to Bandyopadhyay (2012) bigger cities in Karnataka have higher proportions of O&M expenditures while both salary and establishment components show higher proportions in smaller cities. This indicates that bigger cities are incurring more productive expenses than the smaller ones. We find that the ULBs on an average can reduce 27 per cent of their expenditures on O&M, labor and establishment to provide the same levels of services provided currently by them. The study also finds that there can be additional savings particularly on establishment and labor expenditures to operate at the maximum efficiency levels. Further the paper finds that the extent of problem of unproductive spending and under-provision of services is more pronounced in smaller cities.

Estimations of expenditure requirements are useful to guide the cities in expenditure management. Fiscal gaps measured as the difference between the expenditure needs and revenue capacities can act as the indicators to quantify transfers from upper tiers of the government. The daunting data requirements and methodological challenges restrict the number of studies in this area. There have been some attempts to assess the adequacy of municipal finances to provide services conforming to norms. Comparisons of actual expenditures on a particular service with the financial norm for that service can give an idea on the extent of under-spending. Taking Zakaria Committee norms, which was determined in the 1960s, a study for the period 1999-2000 to 2003-04 shows that in 30 municipal corporations in India, on an average, actual spending is only about 24 percent of the requirements, or the extent of under-spending is

as high as 76 percent (Mohanty et.al, 2007). The study also shows that of the 30 municipal corporations, the extent of *Municipal Finance in India: Some Critical Issues 15* under-spending was over 75 percent in 17 municipal corporations, and over 50 percent in all of them except in three which are Pune (31.6 percent), Nagpur (30.8 percent) and Nasik (35.5 percent). Patna Municipal Corporation actually spends only about 5.6 percent of the requirement and the shortfall was 90 percent in almost all municipal corporations in UP and Bihar. The study also attempts to establish a direct relation between cost recovery ratio and extent of underspending.

It was found that in their sample the cities with better cost recovery rate are the ones with lesser extent of under-spending on services. A higher cost recovery in user charges can help the cities to fulfill their expenditure requirements. Another study on the urban local bodies of Jharkhand (Bandyopadhyay 2011) based on Ramanathan and Dasgupta (2009) norms estimates that the actual revenue expenditures can cover only 41 per cent of the revenue expenditures requirements. Actual capital expenditures can cover 3 per cent of the capital expenditure requirements on urban services. Bandyopadhyay (2012) shows that comparing the services in a particular size class of city with the norms suggested by HPEC report (2011), in the smaller cities in Karnataka, it is water supply which has the minimum shortfall from norms, in the medium sized cities it is road density which is closest to the norms and in the largest city size class it is the solid waste management which performs the best with zero shortfall from norms.

On an average for all the services there is a shortage of 57 per cent of the O&M expenditure norms, the shortage being the highest (64 per cent) in the biggest size class of cities. Comparison of the growth of expenditures with that of revenues can give an idea about how the city can cope up with growing needs. If we compare the growth of revenues with expenditure, generally growth in the latter is higher than the former. Mathur et al (2009) finds that revenue productivity of the property taxes is low, with a growth rate much below the growth rate of expenditure.

Another way of looking at the adequacy of revenues is by comparison of the revenues (or the potential estimates, if available) with expenditures (or the requirements). According to Mathur et al (2009) property taxes can only fund about 28 per cent of the revenue expenditure. Bandyopadhyay (2012) finds that for the cities in Karnataka, only 27.5 per cent of the O&M expenditure requirements can be fulfilled by the own revenues once the potential for the latter is fully realised. This proportion is higher in bigger cities with moderately high variation across cities. As far as the O&M cost coverage is concerned the paper finds that on an average the ULBs in Karnataka can finance 50 per cent of the O&M costs on basic services through their own revenues with a very high variation in the proportions across cites.

Bandyopadhyay and Rao (2009) estimates the fiscal gaps for five major agglomerations in India. The main findings suggest that, except for five small urban local bodies in Hyderabad, the others are not in a position to cover their expenditure needs by their present revenue collections. All the agglomerations have unutilized potential for revenue generation; however, with the exception of Hyderabad, they would fail to cover their expenditure needs even if they realize their revenue potential. Excepting Chennai, larger corporations are more constrained than smaller urban local bodies.

The main problem in assessing the fiscal health of Indian cities is the absence of a rigorous methodology in estimating expenditure needs and revenue capacity. Bandyopadhyay(2013a) considers big urban agglomerations and smaller cities in India to propose a two stage methodology which explains the variations in fiscal health across cities. In the first stage the expenditure need and revenue capacities are estimated. In the second stage an econometric analysis is attempted to identify the determinants of fiscal health. The nature of relationship between the determinants and the fiscal health indicator is defined by the relative strength of the 'revenue effect' and the 'expenditure effect'. We find that the role of the higher tiers of the government is important in bigger and smaller cities in their financial management. For bigger cities, own revenues

can also play an important role in improving fiscal health. In smaller cities the role of the demand indicators is not that prominent but the cost indicators are found to be more effective while in case of bigger agglomerations, the demand indicators can play a role.

Conclusions

This paper has attempted to review the state of municipal finance in India. With the help of the available literature, we find a wide diversity in the functions and thus revenue handles of cities. The extent of decetralisation is not uniform across states. The compositions of revenues are diverse, with differing trends in the growth patterns of revenues. Expenditures in general fall short of their requirements. Most of the cities generate revenues much lower that their potentials.

Assignments of revenues are not uniform, nor are grants transferred in the same way on the same heads. The size of the city is an important factor in explaining these differences, but we are yet to have any unique relation between size of the city and their quality of management from empirical literature. The stage of the development in which the city is in, whether it is a part of an agglomeration or has an independent identity also affects the performance.

Performance in revenue generation and expenditure management is at the core of competitiveness for a city. A good performance in municipal resource management could be the key to attract educated mass which in turn can bring about more revenues to the city. Given the industrial performance of the city, population growth, employability, a good performance in municipal resource utilization and management can bring about a huge change in the city.

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STUDY OF LEARNING VALUES AT DIFFERENT LEVEL

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ABSTRACT

The study was carried out to get the perception of student's about E-learning during COVID-19 lockdown. Perceptions were sought from 370 students in which 119 male and 251 were female. The research was done because with the advancement in technology there are various software tools provided to make e-learning possible in an easy manner. The data was collected with the online questionnaire through Google form. The finding of the research shows that majority of students thinkthate-learningisthebettertolearnduringCOVID-19lockdown.Somemajorfindingsofthestudy: In comparison to the males, females are more found to have a positive views and support of E-learning, Maximum students believe that E-learning means Online learning, With the help of different software tools like Zoom, Microsoft Teams, Google Meet etc students find easy handling, this study also reflected that there is no significant difference between male and female student's attitude toward e-learning.

Key Word: *COVID-19 lockdown, E-learning, Student's Perception, Attitude toward E-learning, Perceived Ease, Features of E-learning.*

Introduction

2020 is the year of pandemic where various problems are faced by the world. COVID-19 is the major in them. Educational world is also targeted by covid-19 not by the virus but by the lock down which is due to the covid-19 spreading. Everybody is locked in their home. The best part of this lock down is advancement and involvement of students and teachers in E-learning. Earlier also E-learning was therein the system but it is a minor part of teaching learning process. This Covid-19 changes the entire place of E-learning. Now E-learning is playing a major role in teaching learning process. The use of E-learning in education and training programs has major implications for learners and the institutions. It is widely accepted during this COVID-19 lockdown. Also Advances in technology and developments in learning provides the great opportunities to create complete E-learning environment (Khan, B.

H.,2005). E-learning opens various doors in higher education. The term "**E-learning** is an on-line education **defined** as the self-paced or real-time delivery of **training** and education over the internet to an end-user device" (Lee & Lee, 2006). "**E-learning** is the delivery of a **learning**, **training** or education program by **electronic means**" (Li, Lau, & Dharmendran, 2009).Several studies have been published on Online learning. National Centre for Education statistics shows a growing demand and acceptance of online learning (Anawati, D., & Craig, A, 2006). Online learning materials are created with great efforts and also for long lasting uses and it may fulfilled the substitution of classrooms (McClellan,2016). Online teaching increases the scope and accessibility of education (Gossenheimer, Bem, Carneiro and de Castro, 2017). Online teaching has positive and negative both effects on education, therefore teaching learning activities should be more explored to differentiate what works are positive and what are negative (Arroy et al., 2015). Satisfaction, motivation and problem solving and higher order thinking skills are the positive side of Online learning (Matlaka, Nikosi, Modiba, Dolamo & Maboe, 2013). Students satisfaction and retention are also enhance the outcomes of online teaching learning practice (Sophia Janse van Rensburg, E. 2018). Online teaching learning process is highly depended on computer literacy skills with the challenge of internet connectivity. (Barnard-Ashton, Rothberg & Mclnerney, 2017). Interaction between students and teachers has been studied an important part of the online teaching learning process both for students and teachers (Hawkins, Graham, Sudweeks, & Barbour, 2013). Higher classes teachers need to be more responsive and prepared otherwise students become frustrated and they quickly give up the e- classes. (DiPietro, 2010). So the teachers can be an

important part of the entire process (Kirby & Driscoll, 1997). Online learning is also required to develop a set of best practices for evaluating how much an information literacy object follows the best practices for teaching and assessing critical thinking (Goodsett, M, 2020). fourth presence, learning presence, warrants consideration since without it areas of student experience in online and blended coursework remain unaccounted for (Blaine, A.M. 2019). Researchers need to pay particular attention to the needs and lived experiences of students in these courses (Barbour, 2008). From the student's point of view, e-learning can be used as complementary approach with current system to improving educational quality in agricultural extension and education in higher Education. Yaghoubi, J. (2009). Faculty may contribute to this confusion by claiming that their academic teaching strategies include critical thinking in order to leverage the acclaim associated with the term (Halonen, 1995).

Methods

The methodological approach of this study was an analytical method. Students from Barkatullah University and Banaras Hindu University are the target population that have been selected by using simple randomization method (n=370). Researcher made online questionnaire was developed to collect data. A pilot study was conducted with 100 students in BSSS College Bhopal. Questionnaire reliability was estimated by calculating Cronbanh's Alpha. Data collected were analyzed with the help of MS Excel. Frequencies, Percent, Means and Standard Deviation were used for descriptive analysis. And t-test were used for interferential analysis.

Results

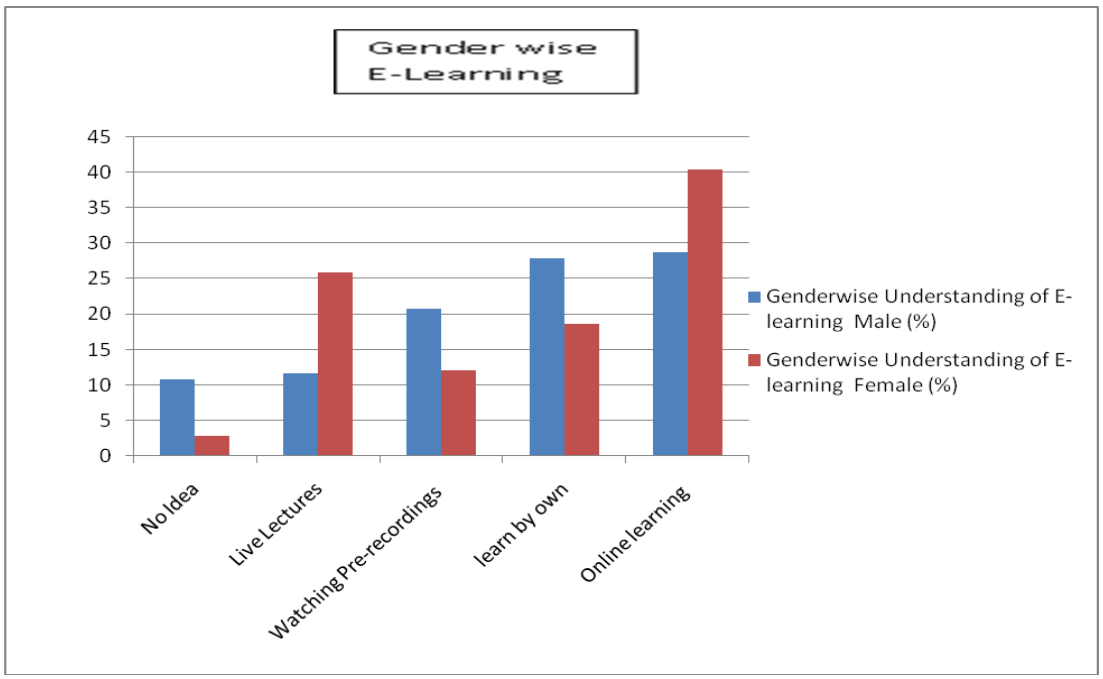
E-Learning understanding of students:

To know the understanding of E-learning according to student's point of view 370 Reponses were collected. Out of that 40.48% students believe that e-learning is a online learning which was very less as per research team assumptions. Students understanding of e-learning was also 25.91% in live lectures, 12.14 in watching pre recorded videos and 18.62% in by own learning.

Table 1.1 E-Learning understanding of students

Criterion	Overall Understanding	GENDER	
		Male (%)	Female (%)
No Idea	13.63	10.8	2.83
Live Lectures	37.62	11.71	25.91
Watching Pre-recordings	32.86	20.72	12.14
learn by own	46.54	27.92	18.62
Online learning	69.3	28.82	40.48

It can further be classified into gender wise comparison. Girl students have 7.97% idea about E- learning, where as 14.2% more girls believe that E-learning is live lectures over internet. 11.66% of girl students more than boys understand that e-learning is online learning where as 9.3% of boys more than girls understand e-learning as a learning by own.



Graph-I Gender wise E-Learning Understanding

Features of E-learning:

Features of E-learning assessed on four parameters to know the student's perception on Study through e-learning mode provides flexibility during COVID-19 Lockdown, they feel there is no effect of lock down on learning, Availability of Test and Assignment through E-learning and Availability of Interaction between teacher and student through e-mode

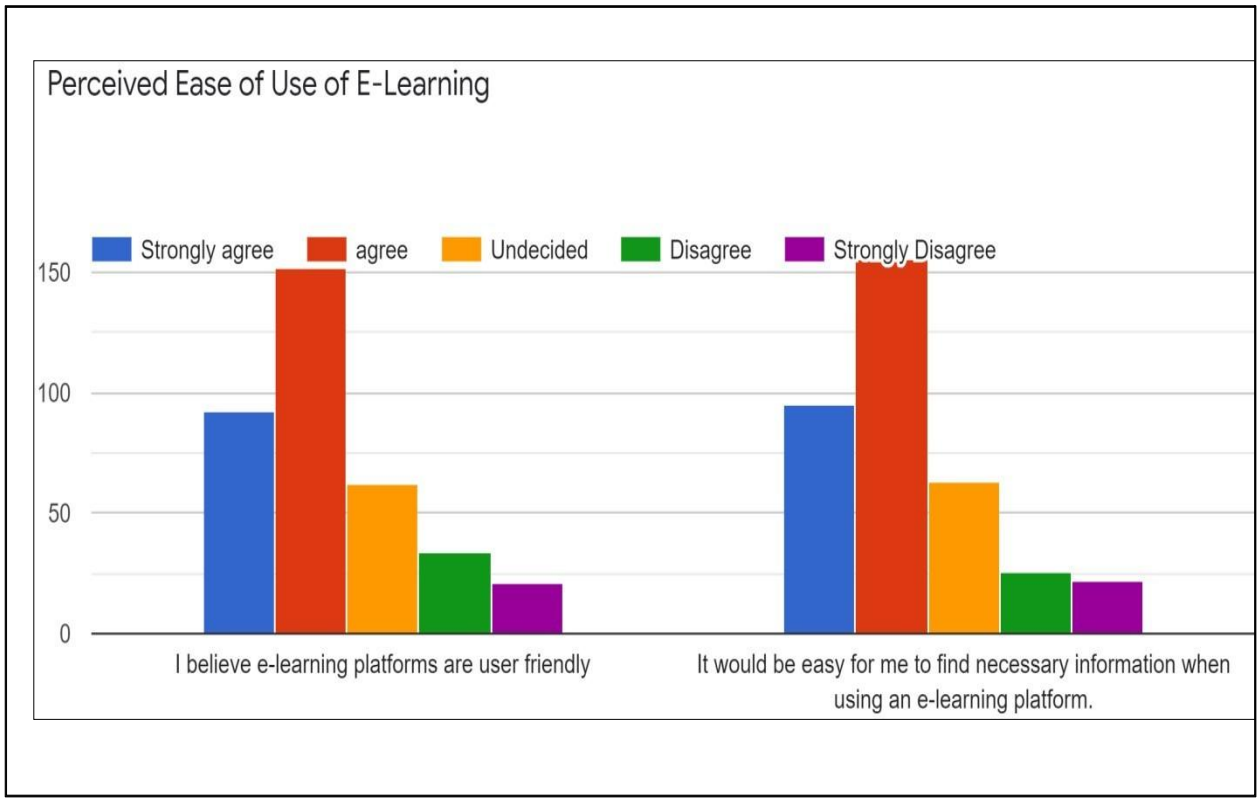
Table 1.2 Features of E-learning

SN	Parameters	Agree (%)	Undecided (%)	Disagree (%)
1	Study through e-learning mode providesflexibility during COVID-19 Lockdown	58.83	14.36	25.69
2	No effect of location	65.46	17.40	16.29
3	Availability of Test and Assignment through E-learning	66.85	16.85	14.08
4	Availability of Interaction between teacher and studentthrough e-mode	56.35	19.33	23.75
AVERAGE		**61.87**	**16.99**	**19.95**

Interpretation of the table shows that 61.87% of students agree that e-learning are flexible, location free and availability of interaction and assessment through e-learning mode are possible during COVID-19 lock down. Rest 16.99% students are not decided and only 19.05% of students deny the parameter of features of E-learning.

Perceived Ease of Use of E-learning

Researcher main to create this to identify the student's perception and believe on e-learning are user friendly and easy up to which level. And by the below graph it cleared that most of the studentsbelieve that e-learning platform are easy and user friendly.



Graph-2, Perceived Ease of use of E-learning.

On an average 69% students believe that e-learning platforms are easy to handle and helpful to find the necessary information. Whereas on average 17.26% were undecided and 7.18% were disagree that e- learning platforms are easy to handle and helpful to find the necessary information. The distribution is shown in the below graph.

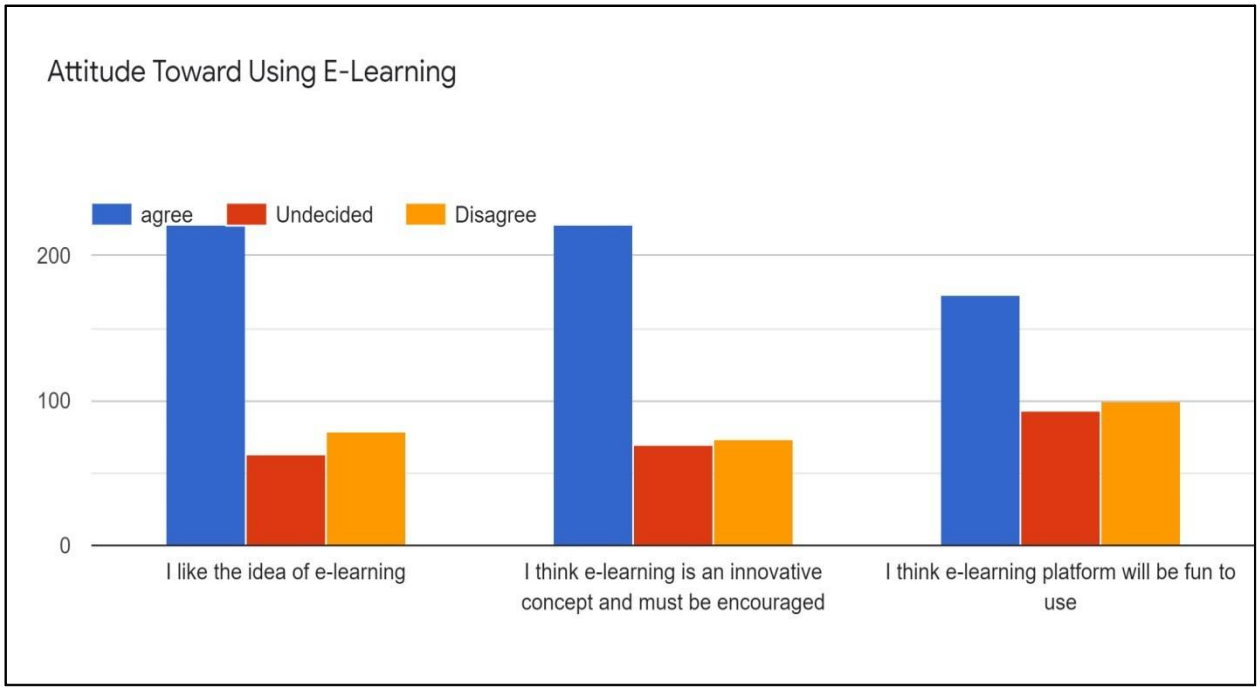
Attitude towards Using E-learning:

This section was analyzed to know the student's perception about the idea, innovative concept and funwhile using e-learning.

Table 1.3 Attitude towards Using E-learning

Parameters	Agree (%)	Undecided (%)	Disagree (%)
I like the idea of e-learning	60.81	17.39	21.8
I think e-learning is an innovative concept and must be encouraged	60.97	18.92	20.00
I think e-learning platform will be fun to	46.76	25.41	27.37

Above table proved that maximum students agreed that E-learning is an innovative concept, idea andfun to handle.



Graph-3, Attitude towards Using E-learning.

Objective: To study the difference between male and female student's attitude toward e-learning.

Hypothesis: There is no significant difference between male and female student's attitude toward e-learning.

Table 1.4 Difference between male and female student's attitude toward e-learning.

Group	N	Mean (%)	Standard Deviation	DF	t-value
Male	119	74.78992	25.66127	368	0.075939
Female	251	79.50421	22.86774		

Interpretation: Above table shows that at degree of freedom 368 calculated value for't' is 0.075939 which is very less than the table value so the null hypothesis that there is no significant difference between male and female student's attitude toward e-learning is not rejected.

Discussion

This study was set out to analysis the student's perception about E-learning as they are main beneficiaries of E-learning. This study reflected that how student understand its uses and how it helps them in learning during COVID-19 lock down, The perception of male and female respondents on e- learning were also compared with each other. In this study discussion is made on the findings to the following research questions:

- What is E-learning in student's perception?
- What are features of E-learning according to students?
- What is the perceived usefulness of E-learning among students during COVID-19 lockdown?
- What is the attitude of students towards E-learning?

There was one objective also to compare the significant difference between male and female student's attitude toward e-learning.

E-learning in student's perception

Understanding of E-learning according to student's point of view 370 Reponses were collected. Out of that 40.48% students believe that e-learning is a online learning which was very less as per research team assumptions. Students understanding of e-learning was also 25.91% in live lectures, 12.14 in watching pre recorded videos and 18.62% in by own learning.

Features of E-learning according to students

61.87% of students agree that e-learning are flexible, location free and availability of interaction and assessment through e-learning mode are possible during COVID-19 lock down. Rest 16.99% students are not decided and only 19.05% of students denythe parameter of features of E-learning.

Perceived usefulness of E-learning among students during COVID-19 lockdown

On an average 69% students believe that e-learning platforms are easy to handle and helpful to find the necessary information. Whereas on average 17.26% were undecided and 7.18% were disagree that e-learning platforms are easy to handle and helpful to find the necessary information.

Attitude of students towards E-learning

Maximum students agreed that E-learning is an innovative concept, idea and fun to handle. This also proved that there is no significant difference between male and female student's attitude toward e-learning.

Conclusion

This study was carried out to get the student's perception about E-learning during COVID-19 lock down because in this period of lock down students are only depend on online source of learning. Perceptions were sought from 370 students in which 119 male and 251 were female. This research shows that students believe that e-learning mode is very helpful for the continuing their studies during lock down. The research was done because with the advancement in technology there are various software tools provided to make e-learning possible in an easy manner. The data was collected with the online questionnaire through Google form. The finding of the research shows that majority of students think that e-learning is the better to learn during COVID-19 lock down. Some major findings of the study: In comparison to the males, females are more found to have a positive views and support of E-learning, Maximum students believe that E-learning means Online learning, With the help of different software tools like Zoom, Microsoft Teams, Google Meet etc students find easy handling, this study also reflected that there is no significant difference between male and female student's attitude toward e-learning

Recommendations

Since the COVID-19 lock down increases the scope of E-learning. This will make students to think their teaching and learning activities. Students and teachers will be able to compare the face-to-face and E-learning. This will make students to experience HYBRID LEARNING (Combination of Traditional And E-Learning) which is their preferable choice of learning as reflected in the study. Researchers also believe that there are some drawbacks of Online learning like Internet connectivity, fears of teachers, Big class strength, Costly etc. In this regards researcher recommended to the educational community that prefer hybrid learning.

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CRITICAL STUDY FROM NPE 1986 TO NPE 2020

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ABSTRACT

After three decades of NPE (1986), in 2020 NPE has emerged as a ray of hope to uplift the education. However, taking into consideration the ground realities, it is still questionable that how far it will be able to direct towards the access, equity, efficiency in education. The roadmap of education needs tobe rebuilt based on the policy directions through effective plans and programmes for achieving the goals.

Keywords: *Education, Policy, Quality.*

Introduction

The role played by education in individual and national development of a country is well elaborated in academic literature. After spending years in attaining education, a question often strikes the mind, what have we learnt and what growth and development takes place due to education, shall the same education be carried forward for the next generation? These are some of the random thoughts that often strike most of us. In the same context, reading today's headlines about the nod given by the Government to NPE (2020), the mind dwelled towards reflecting on NPE passed by Parliament in 1986 which is considered a benchmark among educationists.

Before we proceed to understand the NPE 2020 in light of NPE 1986, it is important to understand the context under which the current policy is framed. Any policy is formulated taking into consideration national priorities, socio political structures, and economy. To transform India into a global power and make the maximum use of the demographic dividend, the priority of the national political parties is to make revolutionary changes in the education sector. Often when a change is introduced, the values, ideologies and preferences of the political actors get intertwined with bureaucrats who are entrusted with the responsibility of education planning. The entire ecosystem of Education planning cannot be understood without conceptualising its components like access, equity, structure, efficiency, institutional management and many more. The New Education Policy is expected to relook and reflect on all these elements of the education system so that the policy document can be welcomed with realistic and futuristic orientation, rather than an ambitious piece of document.

Reflections on NPE (2020)

India has made significant progress in providing access to education at different levels through the introduction of a large number of initiatives like SSA, RMSA, RTE and so on. Despite all these interventions, India has not been able to provide basic elementary education to all children even after a decade. In such a scenario, hoping NPE (2020) to achieve universal access at all levels of education with 100% GER in school education by 2030 is going to be one of the most difficult tasks.

Most importantly, the real challenge is not just the access to education but to ensure the access to quality education. The focus, right from SSA & RTE to NPE, seems to be more on physical access rather than quality. Its high time that quality should be given a central place in the plan documents as ASER reports and National Assessment Survey (NAS) reports, have for a very long time been raising alarm on the deteriorating quality of education where it seems like India is on a downward spiral. It has also been pointed out that India accounts for 21% of the world achievement gap for quality education goals (Bhowmick, 2019). This itself is a reason strong enough to work towards inculcating quality while putting emphasis on access.

NPE (2020) has accorded immense weightage

on the role of technology for the transaction of teaching learning. Unfortunately, the success of conducting classes with technology or assuring the blanket usage of smart classrooms, has both been a distant dream without adequate infrastructural support. The inequitable access to technology has emerged as one of major challenges in the current pandemic situation. Added to that, the preparedness of students as well as teachers in effective handling of the technology, is in itself questionable. With the free flow of knowledge and information in several socialplatforms, NETF might emerge to be yet another dormant organisation, with no significant value addition. Along with the pessimism of not contributing enough to add towards the marginal utility in education, there is fear of digital divide which may soon pop up with an increasing shift towards technology-oriented learning, not to forget the impact which the same may have on women and other vulnerable groups.

Education for equality held a strong foothold in NPE (1986). It talked in depth on how education will act as an agent for women equality, equalisation of SC, ST and other educationally backward sections of the societies like minorities, handicapped and so on, to remove disparities. These are the democratic ethos of India, which needs to be inculcated and reflected overtly, without bargain. NPE 2020 though tangentially touches upon these aspects however, the clear-cut roadmap with plans and strategies are still awaited on how these aspects will be dealt with, other than budget allotment, which is a mere starting point.

With regards to the regulatory and structural changes, NPE (1986) focussed on the strengthening of existing institutions by providing infrastructure and human resources. However, NPE (2020) goes for introducing separate regulatory and management authorities like SSSA, SQAAF etc. But finding a solution by simply replacing and bringing forward a large number of new authorities might add to an already existing chaotic system and thus the real problem remains intact. The already existing systems need to be repaired through adequate training, capacity building and adequate funding.

For skill development, one of the reforms introduced is the inclusion of vocational education from class 6. The already existing vocational education at secondary level's impact on the income and employment prospects is not hidden. The real need is to fix the existing issues and not to extend to other stages without adequate planning and infrastructure. It should be planned in realistic terms in order to avoid mismatch between skills and market demand. Along with that, the inclusion of coding and other vocational training from class 6 onwards will require recruitment of fresh human resources into the system who are adeptly skilled to tackle this reformed system. Teacher's recruitment is one such pandora's box where the less is said, the better it is. Other than intrinsic motivation, which is inherently fuelled by workplace ethos and culture, what other factors should attract the fresh talent in the education system!

To transform the imaginary situation into real, it is important to have certain checkpoints which includes policy desirability by stakeholder, affordability in relation to the fluctuating economic situation and most importantly, sustainability to bear fruit. The interest groups, notably teachers, parents, and other administrative staffs can lead towards success or failure of policy as reforms are to be implemented by them.

The most important phase is the policy implementation. The administrative authorities are in charge ofthe duty to implement the plans at ground level. But the lack of clear-cut division of responsibilities between teachers and administrative staffs, make the entire system standstill. The system reaches a dead end where the task becomes 'nobody's responsibility' Take for example, a teacher who is involved in administrative works so much that the real role of teaching gets lost. This gap of executing administrative work by a teacher need to be addressed.

Teachers play a major role in the education success. NPE (2020) called for motivated, energized and building the capacity of faculty. It is suggested that there will be independent, transparent recruitment and more freedom to design curricula, incentivizing excellence. But there is nothing new in it. Even three decades

before 1986 policy also called for reorganizing recruitment to ensure merit, objectivity along with creating conditions to motivate teachers through giving them freedom to innovate etc. The real challenge is to transform this abstract intention to a concrete implementation. Take another example of Teacher education institution. TEIs poor quality have been highlighted by JVC (2012) and even NCFTE 2009 which elaborates on concerns and vision of teacher score, and called for revamping teacher education. On the similar lines, NEP (2020) again repeated that strict action will be taken. But these strict actions have still not been concretized in practical terms.

Inclination towards privatisation is yet another aspect which is clearly visible in NPE 2020. The policydocument has in fact encouraged the private philanthropic partnership. At higher education levels, it seems that the government is prepared to privatize the HEI under the veil of financial autonomy, where on one hand, the HEIs will be expected to generate their own income, on the other hand, as per policy, they will be encouraged to offer a large number of free ships and fellowship to students. Expecting them to offer scholarships along with generating their own source of income sounds a bit fictitious.

The idea of financial autonomy does align well with the reduction of public funding in education. It's no more hidden that the current government has reduced funding on education in the past few years. The public spending on education was 6.15 % of the central budget in 2014-15 which reduced to 3.71 % in 2017-18 (GOI, 2018). As per Economic survey 2019-20, the public spending on education was 3.1% of GDP which is considered lowest in the decade. Even the GEM (2017-18) report quoted the insignificant spending on education. With all these backgrounds of ever dropping public funding in higher education, along with the blueprint to further dissociate oneself from accountability of funding, it is rather idealistic for NPE (2020) to proclaim the increase in investment by 6% of GDP. Along with being deceptive, it is rather shameful that even after 5 decades of Kothari commission, we are still just *planning* to reach the 6% mark, where the actual investment, as per the current economic environment and significant increase in the demand for education, the new higher level of investment should have been estimated and implemented.

An interesting aspect of the policy document is the assessment reforms which talks about 360-degree holistic progress cards and tracking student progress for achieving learning outcomes. But the major thing to notice is how it will be practiced at ground level and how far the stakeholders, especially teachers, are prepared for it. The method of evaluation will make it easier for students to score high but its implications on quality need to be reworked on. This is a matter of grave concern, given the fact that we have already implemented continuous and comprehensive evaluation (CCE) under RTE, and the same has been withdrawn as well for the lack of effective results.

Conclusion

NPE (2020) was the much-awaited policy document to reform the education system in context of newly emerging challenges. However, NPE (1986) is still considered to be a benchmark and revolutionary document which envisioned the inculcation of democratic ideas in the education system along with ensuring the quality of learning with a child centred approach of learning. It encompassed the short- and long-term targets to be achieved within a specified period of time. However, the present policy document of 2020 seems to be incomplete without the targets. The current document presents an idealistic world of education fuelled with the ornamental language. How far it will be able to address the goal of access, equity, efficiency needs to be looked at in the coming span of time. Taking into consideration the ground level realities, there are still a number of issues that are unaddressed.

The gap between the policy announcements and implementation is one of the major reasons behind any policy failure. Moreover, the preparedness of stakeholders for implementation is a daunting task. Another concern which emerges from different aspects of the policy document is its repetitive nature. As the saying goes ‘old wine in new bottles’, we already have experienced the

implementation as well as withdrawal of certain policies like CCE, Four Year Undergraduate Programme, Technology enabled learning etc. With experience of failure, the next logical step for any rational individual would be to revamp the same for betterment, having observed the impact in the education system. But the policy document brings forth those policies once again, not in revamped form, rather in an extended format, to be implemented across India.

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FINANCE AND MOTHERS' BELIEFS ABOUT YOUNG CHILDREN'S LITERACY AND LANGUAGE LEARNING AT HOME

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ABSTRACT

The study explores the beliefs of mothers regarding literacy experiences of children in the early childhood years in their homes. Earlier research has positively associated children's early reading achievement with parental beliefs. Building on this, the present study explores the beliefs of Indian mothers whose children are at the earliest stage of language learning. The participating families were living in low socio-economic residential units in the Indian capital of Delhi. The study uses a qualitative approach of research. The data collection methods include in-depth interviews and observation of the physical literacy environment. The sample was selected through purposive sampling and snowball sampling. Data was analysed through thematic analysis approach. Four main beliefs held by mothers about their children's literacy learning at home are discussed in the findings. These were- (1) Hierarchy of languages in child's literacy experiences, (2) Children need books only when they start going to school/preschool, (3) The child needs to study at home during the preschool years, and (4) Digital devices are an important medium of literacy development. This study highlights insights about how literacy is understood and practiced in an oral culture like India. The beliefs whichhave direct consequences on children's literacy development and have implications for organizations working on literacy interventions, parents as well as educators are discussed.

Keywords: *literacy, beliefs, early childhood, language, parental beliefs.*

Introduction

Literacy is a cultural tool developed by and passed over generations. This tool facilitates particular forms of thinking depending on how certain forms of literacy are used as cultural practice in a community (Rogoff, 2003). Children learn to use the tools for thinking provided by culture through interactions with more skilled people (Vygotsky, 1978). Families are a source of knowledge and culture for children, so it is important to understand the practices through which these are transferredto children.

Despite a general appreciation for the potential of literacy, poor literacy development remains a persistent and significant concern for India. Furthermore, scholarship in the field of literacy in India is limited, especially with regards to literacy development during the early years, and even more so in the case of non-school aspects of literacy, such as the child's literacy development at home and community level. Thus, there is an inadequate understanding of how literacy develops and in what ways it shapes the child's thinking. The present study is an attempt to fill the gap in existing literature as it explores the beliefs of Indian mothers regarding literacy experiences of children below five years of age in their homes.

Literature Review

Defining literacy

How literacy is defined has implications larger than just academic significance, because when we define literacy (and therefore also 'illiteracy') it has an impact on the type of goals and objectives of a literacy programme or literacy education (Scribner, 1984).Literacy is a social construct (Gillen & Hall, 2013). While in everyday language, literacy is generally understood as the 'ability to read and write', its definitions have changed depending on time, various theoretical underpinnings (Davidson, 2010), cultures (Street, 2009) and policies of different nations.

The most prominent theoretical perspectives in the field of literacy are the cognitive, psycholinguistic and socio-cultural perspectives. The *cognitive perspective* views literacy as a cognitive skill which an individual uses to encode and decode the linguistic signs and symbols which make up a text (Davidson, 2010; Ehri, 2005). *The psycholinguistic perspective* sees reading as a constructive process that happens when the child engages in meaning making of the text/print based on what she already knows (Kennedy et al., 2012). In

the *socio-cultural perspective*, literacy is seen as being situated in a socio-cultural context and also shaped by the socio-cultural context. This is because all literacy activities and practices that individuals engage with are mediated through the artefacts, people, technologies and ideologies available in their socio-cultural environment. Since the ways in which individuals approach reading and writing are in itself rooted in notions of knowledge, identity and being of the person; the meaning and practices of literacy are always situated in a particular worldview(Street, 2009).

In today's context, literacy is slowly shifting away from writing and moving towards images as being the new dominant mode (Mills, 2016). Furthermore, the preferred medium of literacy is slowly changing from paper/book forms to screens (Kress, 2003). Thus, new information and communication technologies have changed the nature and use of literacy.

Taking into account its changing nature, this study takes a holistic view of literacy. Here, *literacy is understood as socio-culturally defined set of practices and skills which are used for interpreting, creating and communicating the different forms of meaning making*. The forms of meaning making referred here include a range of activities associated with speech, writing, dance, gestures, music, visual forms, and digital forms and so on. Some literacy skills and practices are more valued than others depending on the socio-cultural perception during a period of time (For example, the ability to read and write may be valued more than the ability to create sculptures). Acquiring these valued skills can lead to an individual getting access to more information and so may lead to economic, social and cultural benefits.

Literacy and language during early childhood years

The early childhood years encompass the period from birth to eight years of age, during which time when there is rapid development and growth (UNESCO). Neurological studies have shown that these years are an important time for development of brain and neurological pathways, which influences development in all areas including language learning. Research has shown that these years are a 'sensitive period' for language development and that early exposure to a language results in better proficiency in that language as compared to late exposure (Shonkoff and Phillips, 2000).

During early childhood, development in oral language, reading and writing take place concurrently (Kennedy et al., 2012), thus during this time literacy learning cannot be separated from language development. During early years, language is more than a means of communication, it plays a crucial role in shaping the child's personality as the child lives and grows up in the environment that language creates. It also affects the child's perception of the world, interests, capabilities, values and attitudes (Kumar, 1986). Furthermore, some Indian scholars have pointed out that in the Indian culture it is very difficult to draw clear boundaries between oral, written or performances like dance, music, visual arts, and spatial arrangements (Agnihotri, 2008; Ramanujan, 1990).

Though scholarly interest in literacy has a long history, the early childhood years were almost completely excluded for a long time (Gillen & Hall, 2013). In India too, the national Census excludes the children under seven years in the literacy survey, and assumes them to be 'illiterates' (Chandramouli, 2011). The idea that literacy is applicable only after seven years of age has been challenged by studies belonging to the 'emergent literacy' perspective which show that literacy learning begins at birth (Rhyner, Haebig& West, 2009).

Parents' beliefs about literacy development

Studies have positively associated children's early reading achievement with parents' own literacy habits, parental beliefs and the availability and use of print materials at home (Hiebert, 1993). A study by Weigel, Martin, & Bennett (2006) showed that mothers who believed in taking an active role in teaching children at home tended to have more literacy enriching home environment as compared to mothers who believed that it was the school which was primarily responsible for their child's teaching. According to Sigel and McGillicuddy-De Lisi (2002), parents' beliefs are the beginning point for all the experiences

shared by the parent and the child, as beliefs guide action and are also shaped by that action. They are constructed from parents' individual experiences, cultural norms, and parent–child interactions. Thus, a parent's beliefs about literacy influences her child's literacy development.

There may be situations where beliefs and practices of parents may not always be consistent with each other. A study done on Chinese immigrants living in United States of America noted that, while parents showed consistency in their beliefs and practices in relation to involvement in writing and mathematics, there was discrepancy in their participation in their children's reading and their outlook toward homework (Li, 2006).

Objectives of the study

Using a qualitative approach of research, the present paper focusses on:

- Explorations of beliefs of mothers regarding literacy development of children below five years ofage in their homes.
- Understanding the ways in which the families support children's language and literacydevelopment.

Methodology

This study follows a qualitative approach, whose goal is to look into how people make sense of theworld and experience life (Willig, 2013).A qualitative inquiry is based on the assumption that human experience is complex and that there are no simplistic explanations for things human beings experience, rather, events experienced are often multi-layered and multi-faceted as they occur as a result of multiple factors coming together (Corbin & Strauss, 2008; Willig, 2013).

This paper pertains to a sub-set of data from a doctoral study which explores familial practices shapingchildren's literacy development.

Participants

Six mothers (Age: 25-36 years) along with their children who were younger than five years of age participated in the study. The locale of the study was urban areas of Delhi. The mothers were all either bilingual or multilingual, and spokea combination of Hindi, Bangla and English.

The participants were from families of low socio-economic status (SES). In this study, the socio- economic status of the family is described in terms of the residential area of the family. All the participants were lived in one-room homes. Four mothers lived in a slum resettlement colony and two lived in service quarters attached to homes in a middle-class neighbourhood. All the mothers had been first generation school goers. They had attained basic reading and writing ability in at least one language. Three mothers had completed their school education, one had studied till class ten and two had finished their primary education. While one mother worked as a maid, the other five were homemakers.

The children were in the age group of birth to 5 years i.e. in the early childhood years. Four children were enrolled in preschool (4 to 4+ years), one child was a toddler (2 years) and one an infant (4 months). The families included in the sample were selected through a mix of purposive sampling and snowball sampling.

Data collection

The data was collected in the participants' home in the period between August and November 2019. Data collection techniques included semi-structured in-depth interview of the mother and observation of the physical literacy environment of the child in her home.

The interview schedule was designed to reveal information regarding family background information, caregiver beliefs (and how these are shaped), family and child's language use and child's daily interactions related to learning, play and digital experiences. Generally, the interview was carried out over two to four days and lasted from one to four hours. The face to face interviews were audio recorded using a mobile phone along with notes in the field diary.

The presence of literacy related objects in the home environment provide child more opportunities for literacy development if the adults engage children to play with or explore these materials or themselves get involved. An observation guide was used to know about the physical home environment of the child and how it is a part of the child's literacy

development. The intent of the guide was not to simply count the number of these materials but to understand how they are a part of the child's everyday life, and the interactions and emotions around them.

In line with the qualitative approach, this study engaged with concerns about validityin a number of ways. The participants were free to question or correct the researcher's assumptions during the research process. The ecological validity of the research was ensured by collecting the data in a natural setting, that is, the child's home (Willig, 2013) as well as using data triangulation.

Ethical considerations: As qualitative research involves closely working with others persons, it comes with particular complexities related to cultural norm, behaviours, values and so on. This is why in such a research; the researcher has to be constantly reflecting on her ethical responsibilities

and obligations (Iphofen & Tolich, 2018; Mertens, 2018). Throughout the data collection, the researcher tried to to be sensitive to social cues, and to the to the socio-cultural contexts of the participants. The method ensured that concerns regarding consent of the participants, privacy, confidentiality and anonymity were appropriately addressed. The larger study method was reviewed by the Institutional Ethics Committee of Lady Irwin College, University of Delhi and was granted an approval. All the guidelines were followed in field-work.

Analysis of data

The data collected were analysed through thematic analysis approach. This approach involves systematically working through the data in order to identify common threads of meaning and to then group these together into themes relevant to the topic under study (Willig, 2013).

Findings and Discussion

The analysis of data revealed four major beliefs of mothers. These beliefs are discussed in detail below.

Belief 1: Hierarchy of languages in child's literacy experiences

"Bangla shikiyeokekonolabhhobena": there is no advantage in teaching her bangla (the home language)

The mothers of pre-schoolers saw *home language as not having a major role in the child's education and literacy learning.* While the home language was seen as being needed for listening and speaking functions, the language learnt in school was for reading and writing.

Two of the mothers had Bangla as a home language. While one of them did not know how to read Bangla, she placed value in speaking Bangla at home. She proudly stated that her husband could speak despite not being a Bengali. Even though Bangla speaking was valued at home, neither of the mothers liked the idea of sending their child to a school near their home which teaches in Bangla medium as both of them considered it to be not a very good school. One mother said, *"Emni to chai ki o banglashikhe…schooleintebangla subject aache ..kintu amra to hindi subject niyepodhechi …ache to kichuna…kintudorkarna"* (while I want him to learn Bangla…and while that school has Bangla as a subject…. (it does not matter as) I too studied in a Hindi medium school… it's okay if he learns Bangla, but it is not a priority). Even the language in which the mother told poems to the child had distinct purposes. She said, "*Poems English, Hindi tebeshi ache, banglate o ache, kintu…banglate to ora bole…. orashunai..ora bole….emni to podharkichhuna"* (He listens to poems mostly in English or Hindi… less in Bangla…. Because Bangla poems are for only saying, listening …they are not for studying).

The three nursery going children were introduced to writing foremost through English alphabets, even though neither of the children spoke English or even heard it very often. The mothers of these childrendid not mind this, as it was important for them that their child know English. One mother said, "*englishshob jaga chole…banglashikiyeokekonolabhhobena"* (English is everywhere…there is no advantage in teaching her Bangla)

Belief 2: Children need books only when they start going to school/preschool

"Wohpadhnahisaktaabhi, kitaab to phaaddega": He cannot read, so he will tear the books

The mothers believed that books should become part of the child's life only at a particular age i.e. when they start going to school/preschool. Story books in particular are for children who already knowhow to read.

Both the mothers of infant and toddler did not have any child related books in the home. The toddler was not introduced to any type of paper material expect for old newspapers in the home which was only used by adults for purposes other than reading. In the case of all the pre-schoolers, the first book which the family bought for the child was when the child entered either school or preschool. These books were generally alphabet/number books, colouring /activity books. One mother of a four-year child said, *"…abhikahani kitab nahidena…. Wohpadhnahisaktaabhi, kitaab to phaaddega"* (…not the time for him to have story books…. He cannot read, so he will tear them).

One mother who frequently told stories to her child, believed that story books were not for young children as telling the child stories through books would seem too much like studying, which the child would dislike.

Belief 3: The child needs to study at home during the preschool years

"Boshle, podhte interest nai": He takes interest when I sit with him to study

All the mothers of the preschool going children thought it was important that they sat with their child for some time every day with books. Generally, the study time happened as a result of the homework the child received from school. The homework most commonly given to the pre-schoolers was to copy English alphabets and numbers repeatedly in their notebooks/activity books. One mother felt that the homework given was too difficult as she had to hold the child's hand to write.

Two mothers were confidant in their own ability to 'teach' their child at this age,while one mother sent her child to a more educated neighbour to study. In one family, the father spent time with the child when he was drawing or writing. One mother described how study time became a fun family time: When the child showed his drawing to his father, the father would also playfully give him marks. *"use itnasamajh main nahiaata par khush ho jatahain….aisetimepasskartehain hum…kuchhpadhke, kuchhkhelke"* (while he does not understand marks completely…he becomes happy…we pass time like this...with some studying, some play)

Belief 4: Digital devices are an important medium of literacy development

"Oneejer naam laptopelikhte pare…": My child is able to type his name on the laptop…

The mobile phone and television was there in each home in the sample, while the laptop/computer was there in one home. The mobile phone was the most commonly used digital object by the children and 'YouTube' the most widely application. For the mothers of the toddler and pre-schoolers, digital objects like mobile phone, television and laptops were a ***source of learning*** for their child. One mother mentioned television as a source from which the child picks up language. Another mother claimed that her child learnt the concept of colours from mobile phones and not from the preschool. She said, *"phone colour walaahshob game wagaarahhain… .phoneodekhtedekhte o shob colourer naam cheenegelo"* (the phone has many colour based games …by looking at those he has started recognizing colours).

All the mothers felt amazement and pride in their child's skill in using the mobile phone at a young age. One mother was impressed when her child used the voice command feature in the phone on his own, while another mother was surprised when her child downloaded games from the 'playstore' application. However, the mothers also expressed guilt and worry. Some mothers believed that the mobile phone was not good for children's eyes, while others worried that the child may become addicted to phones. Despite these worries, the mothers allowed their children to access this technology. One mother explained this choice, *"bhalonaki o oto mobile dekhe, kintu o onikshikeyo…draw korar*

video ek bar dekhlo o, bodhaykokhonkaajeashbe" (It is not ideal that she sees so much mobile, but she also learns a lot from it… she once even saw a video which was teachinghow to draw, it may be used by her in the future.) Thus, any potential harms of this technology was considered acceptable risks for the mothers as the benefits of the new technology outweighed the risks.

Conclusion

This study brought out four major beliefs that mothers from low SES homes held about children's literacy experiences at home. The dominance of English first and Hindi secondly is a common feature in Indian society which is particularly relevant, as in India language is associated with a person's identity(Menon, Viswanatha, &Sahi, 2014).The mothers in this study also preferred that their child gain reading and writing skills in English and Hindi (languages learnt in school), while skills of listening and speaking was emphasized in Bangla (home language). Thus, different languages were seen as having clearly different functions in the child's life. Shared book reading was not a common practice in these in these Indian homes. Rather, there was greater emphasis on oral experiences (telling of stories and poems, conversations), while the mothers saw books as having an important role in their child's lives only when the child began going to playschool or school. Research in the area of emergent literacy has established the importance of engagement and exploration of print (like books)from a young age (Rhyner, Haebig& West, 2009). Changing the beliefs of mothers of young children about the time when books are given to children has to be thus made a priority for early reading programmes. Once in preschool, the parents believed in the practice of having a study time at home. The parents saw digital technology as a way to provide learning opportunities to their child. However, clear guidelines about what content is suitable for the child would be beneficial. An overarching theme in all the beliefs was that the mothers saw their own role in their child's literacy development as being important, whether as decision makers of what kind of literacy events their child will experience, as providers of resources (like books, play and technological materials) which aid in their literacy development or as sources of knowledge themselves. Though the present paper includes a small sample size, it is one of the very few studies in India that presents in detail the young child's literacy experiences at home. The findings have an implication for parents as well as educators who want to make literacy development culturally meaningful for children and also build stronger home- school links. Knowledge of mothers' beliefs about literacy can facilitate transition to school and help bridge the home-school gap. Furthermore, these findings which shed a light on an Indian family's existing realities will be relevant to organizations involved in family-based literacy initiatives.

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UNIVERSAL DESIGN FOR LEARNING & RESPONSE TO INTERVENTION AS FACILITATORS OF INCLUSIVE EDUCATION

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ABSTRACT

With implementation of Right to Education Act- 2009 and RPWD Act- 2016, every child has right toget appropriate education in general schools. Due to zero rejection policy, none of the governmentschool or government aided general school can deny their enrollments. Instead, schools need to be ready for inclusion ofall including children with disabilities. This is the legal perspective but justenrolling them physically is of no use. Providing them education in a really helping environment using appropriate teaching learning strategies and assessment procedures is of great concern for their sustainable retention and learning in general school towards successful inclusion. Along with various collaborative models of inclusion, some intervention strategies must be used in every school to provide supplementary support to any student who is still struggling while learning (Smith et al., 2011). Thisresearch article is emphasized over such two emerging advances in inclusive classroom termed asUniversal Design for Learning (UDL) and Response to Intervention (RTI) which are evidenced to improve learning effectively for all students including students with special needs (Smith et al., 2011).

Keywords: *Inclusion, Response to Intervention, Universal Design for Learning*

Introduction

Inclusive educationmeans a system of education where in students with and without disability learns together and meets the learning needs of different types of students with disabilities (RPWD Act, 2016). Aniscow et al., (2006) distinguished inclusion in terms of its 'narrow' and 'broad' definitions. Narrow definitions of inclusion are basically concerned with inclusion of students belonging tospecific group that is mostly of students with special needs studying in general education. While 'broad' definitions emphasized on whole diversity in the school including all students as well as every other member of school community. Five essential features critical for successful inclusion of students with special needs are: i) giving them a sense of social acceptance and belongingness, ii) an appreciation of student diversity iii) attention to curricular needs by making it accessible for every

student, iv) effective classroom management using appropriate reasonable accommodative practices, effective instructional techniques and instructional flexibility, and v)personnel support and collaboration among general teachers- special teachers, other related Para-professionals such as, speech and language pathologists, occupational & physio-therapist, and audiologist (Smith et al., 2011).

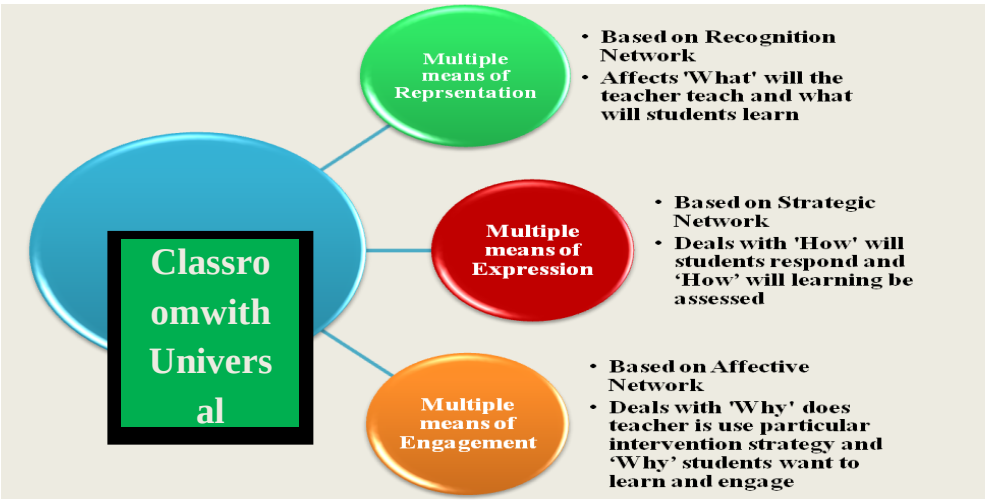
In India, Parents and family members feel like helpless and embarrassed to accept their child with disability. There is general tendency and understanding in Indian people that if a child is having any type of disability, he or she must be placed in special schools designed for them. But with implementation of Right to Education Act- 2009 and RPWD Act- 2016, none of the government general school can deny their enrollments. Instead, schools must be prepared to accommodate and fulfill the educational needs of these children with disabilities. This is the legal perspective but just enrolling them physically is of no use. Providing them education in a really helping environment using appropriate teaching learning strategies and assessment procedures is of great concern for their sustainable retention and learning in general school towards successful inclusion. Designing and delivering curriculum in accessible format for all is a big challenge in front of teachers with normously diverse student population. Each student is different. Their learning style and interest in learning may vary with different subjects or topics. They may get benefitted from if provided with a variety of learning formats to choose and flexible assessments patterns to demonstrate their learning. Various collaborative models, such as collaboration- consultations, peer

support systems, teacher assistance teams and co- teaching, etc. may be used effectively for teaching learning process in general schools (Webber, 1997; & Smith et al., 2011).Along with these collaborative models, some intervention strategies must be used in every school to provide supplementary support to any student who is still struggling while learning (Smith et al., 2011). There are two emerging advances in inclusive classroom that includes Universal Design for Learning (UDL) and Response to Intervention (RTI). These are basically pre-referral intervention approaches that actually used before referring the student formally for special education eligibility (Smith et al., 2011). Evidences show that with implementation of both UDL & RTI, learning for all students including students with special needs can be improved very effectively. In these practices, each student's progress is observed and evaluated through continuing assessment procedures to determine the most effective and scientific intervention program for them. Universal Design for Learning

Every individual is different. They may be different in their needs, interest, attention span, educational background, cultural background as well as in language abilities. With respect to physical environment, Universal Design is the design and configuration of an environment which is least restrictive in nature so that it can be easily understood and accessed to the maximum possible extent by all people regardless of their diversity in age, ability or disability situation. This is not a special requirement, for any specific group of people with disabilities but beneficial for everyone. As we believe in the concept of "Vashudhaiv Kutumbakam" (Sanskrit saying) which means the whole world is our family. So it should be accessible to be lived by everyone anywhere in the world. Universal Design is about same and ultimately good design to meet peoples' diverse needs and abilities enabling access of any place in the world where they needs to go. The design must be equitably useful, flexible to accommodate wide range individual preferences and abilities. Itneeds to be simple, intuitive, effectively communicable and comfortable with minimum risk or hazards irrespective of user's sensory abilities and other situations. In terms of learning, UDLis a flexible, problem solving educational framework with "whole school" approach, designed as intervention to improve and optimize teaching and learning and to accommodate or adjust a wide range of individual differences with respect to their strengths and need, abilities and preferences, including the exceptionally gifted and culturally diverse students. Variety of teaching learning strategies and resources may be obtained and used by teachers through UDL to fulfill diverse learning needs towards students' success. Result of every intervention made through UDL is monitored and assessed and if adequate progress not made, changes are made.

Principles of UDL

UDL and its fundamental principles are based on three primary neurological networks that have impact on 'what', 'how' and 'why' components of learning.



1) Multiple Means of Representation: Children may differ in their intelligence, sensory abilities, motor skills, language, etc. for example children with hearing impairment, visual impairment, mental retardation, learning disabilities, etc. may vary with each other in their approach towards perceiving and comprehending information. Teachers must identify the learning style and learning needs of children and then should decide the way in which the content should be presented to best suit the child. This helps teachers in deciding what they will teach and what students will learn. For better learning, alternative options must be made available to display or present any information. For example, content may be presented in the form of soft copies or hard prints, PPT slides, brail books, audio- video recordings, 3-D models, etc. Audio information may be altered with visual information orvice-versa according to the need of child. Combination of verbal instructions, demonstrations, graphics or peer support (Smith t al., 2011) may also be used. Teacher must focus over language used in any content or information. There should be clarity in vocabulary/ symbols, syntax and structure of language. Multimedia can be used for illustrations. For better comprehension, students may be informed with background knowledge along with some of its critical features. Teachers may guide about how to process and visualize the information to maximize learning. Multiple ways of representation enables students to view or listen any information or content of knowledge in multiple or flexible ways.

2) Multiple Means of Expression: Through multiple means of expression, teachers find answers to how students respond to new information and how teacher will assess their learning. Students show variation in their pace of learning and ability to express. They may need comparatively more or less time to respond. Students must not be restricted to use any single type of media. Technological supports and multimedia like speech, drawing, comics, storybooks, sculpture, videos, animations, chats and discussion forum on social media, etc. may be provided as scaffolds forbetter communication and expression purposes. They may also be allowed to use spell checkers, grammar checkers, word prediction software, text to speech and speech to text software, pre-formatted graph papers, geometric sketch boards concept mapping tools, computer aided designs, etc. This enables students to express them in multiple or flexible ways to demonstrate their learning. Also, students may express them individually or in group. So, oral, written, tactile in form of drama or puppet, and/ or technological in form of recordings, etc. may also be used(Smith et al., 2011).Similarly, a child with speech and hearing impairments or language problems may get permitted to respond using sign or gesture or pointing over object, etc.; child with visual impairment can express his or her knowledge verbally or in braille, etc. Alternate options must be provided to act and communicate. Teachers can provide guidance to students in determining goals and may scaffold them in developing strategies for development. They can help in improving student's working memory by enabling managing information and resources through use of graphic organizer, checklist and guides for note taking, etc. Teachers can help them in enhancing capacity for monitoring their own progress. Instead of typical paper pencil test, activities like designing new game or product, scoring rubrics, assessment checklist, role playing, peer feedback, etc. can be used to assess their learning. Children may be asked to evaluate self-learning through self- reflection or self-monitoring. Language and knowledge assessments can be done separately (Singh, 2018; & Mathew and Mishra, 2010).

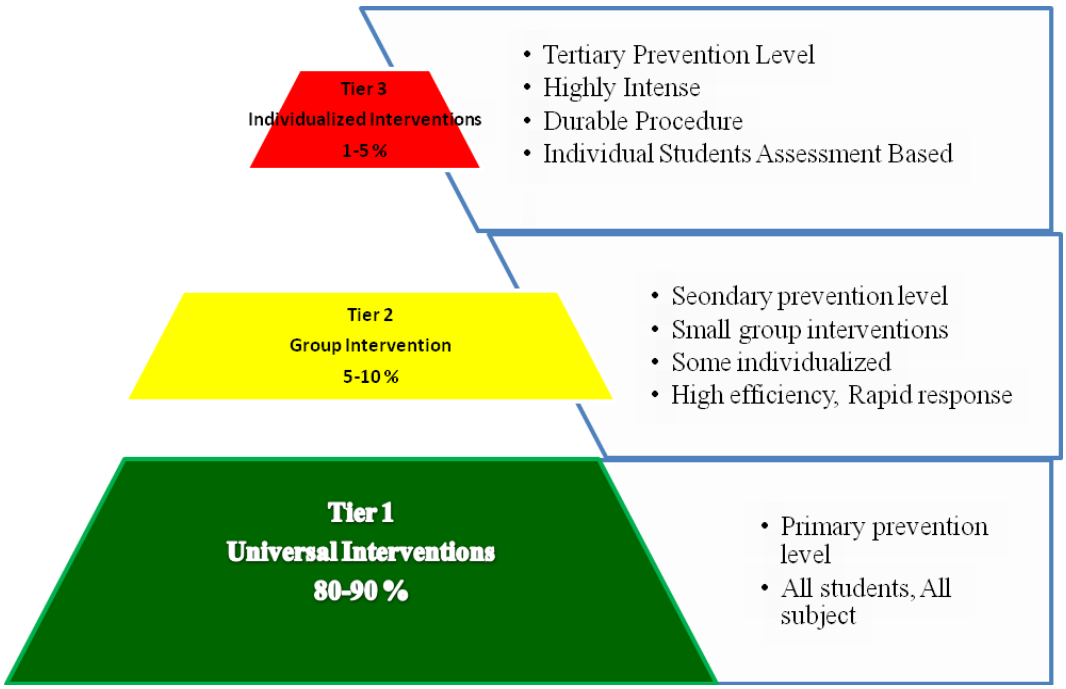
Multiple Means of Engagement: Engaging students using multiple activities regulates students' attitudes, interest and motivates them to find sense out of information. Activities must be optimized to engage or motivate students to learn. For this firstly, identify learning preferences of child and then accordingly decide activities to engage child in learning but ensuring minimized threats and distractions. It helps in knowing 'Why' teacher

uses particular intervention strategy for a student and 'Why' students want to learn or engage (Smith et al., 2011). It respects individual choice and their autonomy to act or engage in a way they wants to be. They may either search any information on system to typically more intense tier II level of intervention. Only 1-5% of students with intensive needs expected to require tier III level of intervention that provided on individual basis or in very small groups (1:1, 1:2 or 1:3). Tier II & III occurs more frequently, and lasts for a longer duration (Smith et al., 2011).

Response to Intervention Model

(School wide Multilevel prevention system and Academic and Behavioral support Model)

3)



Conclusion

With the implementation of both Universal Design for Learning (UDL)&Response to Intervention (RTI), learning for all students including students with special needs can be improved very effectively (Smith et al., 2011).In these practices, each student's progress is observed and evaluated through continuing assessment procedures to determine the most effective and scientific intervention program for them. Here accessible general education curriculum is facilitated to retain student's successful learning in inclusive classroom which also helps in reducing need for special accommodations required by students with special needs. No one approach is ideal for everyone. So, use alternative options with increased accessibility to enhance learning but without removing learning challenges which are essential for children's development.

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INTERACTION BETWEEN RAJYOGA MEDITATION AND TYPE OF SCHOOL IN RELATION TO COGNITIVE CAPABILITIES, EMOTIONAL INTELLIGENCE, AND ACADEMIC ACHIEVEMENT

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ABSTRACT

This study was conducted, in order to find out the interaction between Rajyoga Meditation and type of school in relation to cognitive capabilities, emotional intelligence, and academic achievement in adolescents in Himachal Pradesh (India). The quasi experimental pre-test post-test research design was used for this study. This study was conducted in two schools (one Government and other private) on 100 adolescents aged 13-14 years. The sample was divided into two groups: experimental group and waiting control group. After the exposure to the Rajyoga Meditation Programme for 88 days, the data available for analysis was reduced to 82. The data was analysed with two way analyses of variance (ANOVA). The results indicated that there is no significant interaction between Rajyoga Meditation and type of school in relation to cognitive capabilities, emotional intelligence, and academic achievement in adolescents.

Keywords: *Rajyoga Meditation, Cognitive capabilities, Emotional intelligence, Academic achievement.*

Introduction

The trans-disciplinary research on meditation is proposing new solutions to the existing problems. The research in health sciences on meditation has opened many avenues for other fields. Meditation has been proved useful to human body in physiological, cognitive, psychological and personal aspects. Meditation is a mental exercise of turning inwards (Chandel, 2019). But surprisingly it affects physical, intellectual, emotional, and social aspects of a human being. It reduces stress (Hassed, 1996); and increases memory, attention, creativity, emotional intelligence, and academic achievement (Chandel, 2019).

The complexity of teaching-learning process is known to everyone. At a single point of time; human beings are affected through a variety of variables. These factors may be physical, demographic, cognitive, emotional or personal. Different types of schools have different resources and learning environments that may affect the learning capacity of the students. Moreover, Rajyoga Meditation can affect the variables like memory, attention, creativity, emotional intelligence, and academic achievement (Chandel, 2019) that affect learning. This study is an attempt to locate the interaction between type of school and cognitive capabilities, emotional intelligence, and academic achievement through Rajyoga Meditation in adolescents

Literature Review

Reports of improvement on short-term, long-term memory, attention, cognitive flexibility, cognitive functions, IQ dimensions of cognitive capabilities through meditation have been confirmed by research recently. Lynks and Lauren (2009) indicated improvement in short-term and long-term memory. Ching, Koo, Tsai and Chen (2015) found improvement in memory through meditation. Improvement in attention, another dimension of cognitive capability, is also reported by Moore and Melinovskiv (2009) and Ching, Koo, Tsai and Chen (2015). Further, improvement in cognitive flexibility, and cognitive functions dimensions of cognitive capabilities were reported by Moore and Melinovskiv (2009) and Singh Sharma and Talwar (2012) respectively. In addition to this, improvement in IQ was confirmed by Singh, Sharma and Talwar (2012), and improvement in information processing speed was indicated by Wimmer, Bellingart and Stockhausen (2016) and Prakash (2011).

Positive effects of meditation on emotional intelligence have been reported by Valosek et.al. (2018), Shah, Shah, Shah, and Makwana (2015), Alfansev (2014), Charoensukmongkol (2014), Singh, Mohan and Kumar (2014), Hurk et. al (2010) and Chu (2009). Meditation also

has positive effect on emotional regulation. This was confirmed by Ding et.al. (2014), Munt (2012), Tamavin (2012) and Borderick and Metz (2009), Lynks and Lauren (2009). Moreover, meditation also improves emotional well-being (Anderson, Lau, Segal, and Bishop, 2007); socio-emotional-competence (Schornet-Reichl and Lawlor, 2010; Masicampo and Baumeister, 2007); emotional states (Teper and Inzlich, 2013), resilience scores (Rajini et al, 2017) and emotional quotient (Shashikala and Lakshmi, 2018).

Kembler (1985) found that Transcendental Meditation improves academic performance of postgraduate students. This was confirmed by Hall (1999) in a study on American-African students. Further, Beauchemin, Hutchins and Patterson (2008) also confirmed the role of meditation in enhancing academic performance. In addition to this, Nidich et al (2011) and Rajagopal, Manjushambika, Sanchitha, and Sara (2012) in different studies supported the previous studies. Waters (2014) proposed a model that emphasizes on improvement in academic performance through meditaton. Empirically this was confirmed by Ching et al (2015). Lin and Mai (2016) confirmed that meditation improves academic achievement.

Review indicates towards a dearth of studies on interaction between type of school and cognitive capabilities, emotional intelligence, and academic achievement through Rajyoga Meditation in adolescents. So this study was aimed at to locate the interaction between type of school and cognitive capabilities, emotional intelligence, and academic achievement through Rajyoga Meditation in adolescents.

Research questions and hypotheses

Following were research questions:

(i) Is there significant interaction between Rajyoga Meditation and type of school of adolescents on cognitive capabilities?

(ii) Is there significant interaction between Rajyoga Meditation and type of school of adolescents on emotional intelligence?

(iii) Is there significant interaction between Rajyoga Meditation and type of school of adolescents on academic achievement?

Hypothesis

After framing the research questions following hypothesis were formed:

H_{01} There is no significant interaction between Rajyoga Meditation and type of school of adolescents on cognitive capabilities.

H_{02} There is no significant interaction between Rajyoga Meditation and type of school of adolescents on emotional intelligence.

H_{03} There is no significant interaction between Rajyoga Meditation and type of school of adolescents on academic achievement.

Method

Research Design

This was a quasi-experimental research in which pre-test post-test control group design was used. The sample was divided into experimental group and waiting control group. The experimental group was exposed to Rajyoga Meditation Programme for 88 days; while waiting control group was busy in sports activities. Rajyoga Meditation was treatment variable and cognitive capabilities, emotional intelligence, and academic achievement were dependent variables.

Sample

This study was conducted in two schools (One Government and other private) in Hamirpur district of Himachal Pradesh. The criteria of selection for sample were:

(i) Schools affiliated to Himachal Pradesh Board of School Education, Dharamshala were selected.

(ii) Only those schools were selected which were having ample number of participants.

(iii) Only those schools were selected, where authorities permitted to conduct the programme.

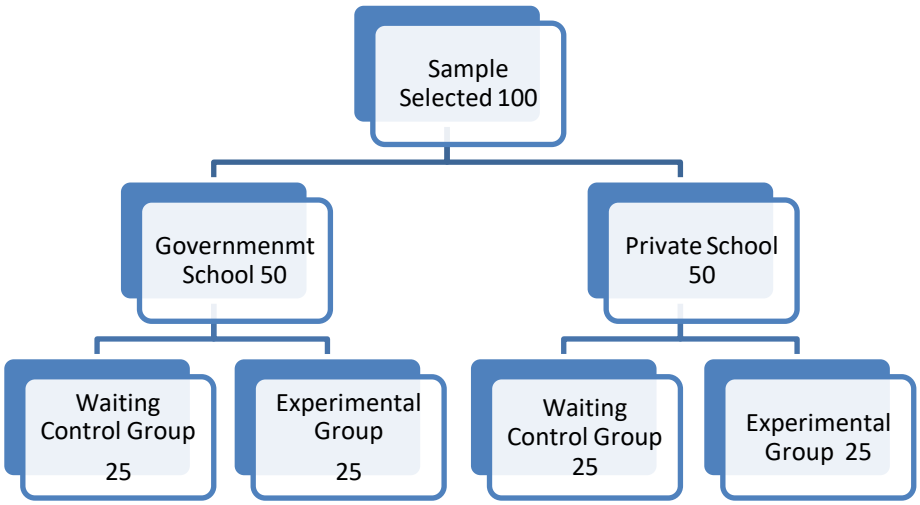
(iv) Only those participants were selected, who were willing to attend programme.

(v) Participants only 13-14 years were selected.

(vi) Only those participants were selected , who were not having any kind of exposure to ant type of meditation.

Total number no adolescents available for study were 282, out of these 112 were willing to attend the programme. After excluding the outliers, 100 adolescents were matched on the basis of scores in Spiritual Values Scales and age. The process is shown in the following diagram:

The sample was divided into experimental group and control group randomly. The division of sample was as given below:



The data of nine pairs was not available for final analysis as nine participants dropped the programme. The data of 82 participants was available for analysis.

Research tools

Three research instruments were used for this study: Spiritual Values Scale, Cognitive Capabilities Test and Emotional Intelligence Scale. Spiritual Values Scale was developed by Nazam, Hussain and Khan (2015). It was used to match the sample. Cognitive Capabilities Test was developed and standarised by the investigator herself. Emotional Intelligence Scale was developed by Singh and Narain (2014). For assessing academic achievement scores of academic achievement were taken from the school records.

Administration of the tools

Before starting the experiment, the subjects were matched on the basis of the scores in

spiritual values. After this they were assessed with the help of Cognitive Capabilities Test and Emotional Intelligence Scale for cognitive capabilities and emotional intelligence respectively. For academic achievement the scores of 2nd Term Examination were taken from school records and considered as pre-test. After the gap of 88 days the participants were again tested for cognitive capabilities and emotional intelligence with the same tools and scores of Final Examination were taken from the schools and considered as post-test.

Research Procedure

This study was divided into three phases: pre-experimental phase, experimental phase and post experimental phase.

(i) Pre-experimental phase: In this phase**,** the subjects were matched on the basis of the scores in spiritual values and age. After this they were assessed with the help of Cognitive Capabilities Test and Emotional Intelligence Scale for cognitive capabilities and emotional intelligence respectively. For academic achievement the scores of 2nd Term Examination were taken from school records and considered as pre-test.

(ii) Experimental phase: In this phase the adolescents of experimental group were exposed to Rajyoga Meditation Programme for 88 days; while the adolescents of waiting control group were busy in sports**.**

(iii) Post-experimental phase: In this phase, the adolescents were again assessed with the help of Cognitive Capabilities Test and Emotional Intelligence Scale for cognitive capabilities and emotional intelligence respectively. For academic achievement the scores of Final Examination were taken from school records and considered as post-test.

Discussion of Analysis

Interaction between treatment and type of school

In order to find out the interaction between treatment and type of school, two way analysis of variance (ANOVA) was carried out on the data with SPSS. The details of analysis of variance (ANOVA), analysis of interaction between treatment and type of school with respect to with respect to cognitive capabilities, emotional intelligence and academic achievement have been presented below:

(i) Summary of two way ANOVA for influence of interaction between treatment and type of school of adolescents on cognitive capabilities: Summary of two way ANOVA showing main and interaction effect of treatment and type of school of adolescents on cognitive capabilities have been displayed in Table 5.52.

Table 5.52: Summary of two way ANOVA for influence of interaction between treatment and type of school of adolescents on cognitive capabilities

Source of Variation	Sum of Squares	df	Mean Square	F
Treatment	32133.95	1	32133.95	45.78**
Type of School	1087.12	1	1087.12	1.55
Treatment X Type of School	216.88	1	216.88	0.31
Error	54733.51	78	701.97	
Total	173657.00	81		

**p<0.01

Summary of 2X2 ANOVA for cognitive capabilities has been presented in Table 5.52. The table indicates that F value for significance of difference in mean scores of cognitive capabilities is 45.74, which is significant at 0.01 level of significance with df 1/78. This implies that there is significant difference in mean scores of cognitive capabilities of experimental group and control group. Moreover, F value for type of school is 1.55; which is not significant. This indicates towards no significant difference in cognitive capabilities scores of adolescents belonging Government and private school. Finally, Table 5.52 also shows that F value for interaction between treatment and type of school is 0.31. It

indicates that there is no significant effect of interaction between treatment and type of school in relation to cognitive capabilities. In light of this, the null hypothesis, "There is no significant interaction between treatment and type of school on cognitive capabilities of adolescents" is accepted.

(ii) Summary of two way ANOVA for influenceof interaction between treatment and type of school of adolescents on emotional intelligence: Summary of two way ANOVA showing main and interaction effect of treatment and type of school of adolescents on emotional intelligence is shown in Table 5.53.

Table 5.53: Summary of two way ANOVA for influence of interaction between treatment and type of school of adolescents on emotional intelligence

Source of Variation	Sum of Squares	df	Mean Square	F
Treatment	362.43	1	362.43	20.74**
Type of School	30.15	1	30.15	1.73
Treatment X Type of School	4.04	1	4.04	0.23
Error	1363.27	78		
Total	2750.00	81		

**p<0.01

Summary of 2X2 ANOVA for emotional intelligence has been presented in Table 5.53. The table indicates that F value for significance of differences in mean scores of emotional intelligence is 20.74, which is significant at 0.01 level of significance with df 1/78. This implies that there is significant difference in mean scores of of experimental group and control group. Moreover, F value for type of school is 1.74; which is not significant. This indicates towards no significant difference in scores emotional intelligence of adolescents belonging Government and private school. Finally, Table 5.52 also shows that F value for interaction between treatment and type of school is 0.23. It indicates that there is no significant effect of interaction between treatment and type of school in relation to emotional intelligence. In light of this, the null hypothesis, "There is no significant interaction between treatment and type of school on emotional intelligence of adolescents" is accepted.

(iii) Summary of two way ANOVA for influence of interaction between treatment and type of school of adolescents on academic achievement: Summary of two way ANOVA showing main and interaction effect of treatment and type of school of adolescents on academic achievement is displayed in Table 5.54.

Table 5.54: Summary of two way ANOVA for influence of interaction between treatment and type of school of adolescents on academic achievement

Source of Variation	Sum of Squares	df	Mean Square	F
Treatment	46283.56	1	46283.56	70.40**
Type of School	0.44	1	0.44	0.001
Treatment X Type of School	33.56	1	33.56	0.051
Error	51280.06	78	657.44	
Total	1798038.00	81		

**p<0.01

Summary of 2X2 ANOVA for academic achievement has been presented in Table 5.54. The table indicates that F value for significance of differences in mean scores of academic achievement is 70.40, which is significant at 0.01 level of significance with df 1/78. This implies that there is significant difference in mean scores of academic achievement of experimental group and control group. Moreover, F value for type of school is 0.001,

which is not significant. This indicates towards no significant difference in academic achievement scores of adolescents belonging Government and private school. Finally, Table 5.54 also shows that F value for interaction between treatment and type of school is 0.51. It indicates that there is no significant effect of interaction between treatment and type of school in relation to academic achievement. In light of this, the null hypothesis, "There is no significant interaction between treatment and type of school on academic achievement of adolescents" is accepted.

Results

1. There is no significant effect of interaction between treatment and type of school in relation to cognitive capabilities of adolescents.
2. There is no significant effect of interaction between treatment and type of school in relation to emotional intelligence of adolescents.
3. There is no significant effect of interaction between treatment and type of school in relation to academic achievement of adolescents.

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INTERACTION BETWEEN SCIENTIFIC CREATIVITY AND DISCIPLINE ON GENERAL CREATIVITY

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ABSTRACT

Creativity and Socio-Economic Status both are the important variables related to each and every personality living in a particular society. The present study was an endeavour to find out the Creativity and Socio-Economic Status of Senior Secondary School Students. For the present study comprises 150 students were selected randomly from District of Faridkot. The obtained results depicted that Senior Secondary School Students have Above Average Creativity. Most of Senior Secondary School Students belongs to Middle Class Families. A significant difference was obtained in Creativity between Boys and Girls Students of Senior Secondary School. The results revealed that Girl Students of Senior Secondary School are more creative than boys. There is no significant difference in Socio-Economic Status between Boys and Girls Senior Secondary School Students. No significant relationship was obtained between Creativity and Socio-Economic Status of Senior Secondary School Students.

Keywords: *memorizing, knowledge, curriculum, general creativity, scientific creativity, discipline*

Introduction

Education is an old as human race. It is never ending process of inner growth and development. It is very imported for the progress of individual and society. It is through education that man develops his thinking and reasoning, problem solving and creativity, intelligence and aptitude, positive statements and skills, good values and attitudes. It is through education that he is transformed into human society, moral and spiritual being. Man learns something every day in every moment. Every minute he is creating, developing, inventing or discovering something new with the help of education. The power of creating something is the power given by education. Some of us are highly creative and implementing education than some others. In this way education and creativity assisting and developing each other. According to Drevdahl (1956, p. 22) "Creativity is the capacity of a person to produce compositions, products or idea which are essentially new or novel and previously unknown to the producer." According to Guilford (1971, p. 582) "Creativity sometimes refers to creativity potential, sometimes to creative production and sometimes to creative productivity." According to Stanger and Karwoski (1973, p. 314) "Creativity implies the production of a totally or partially novel identity." In this way creativity is the capacity or a potential by which a person produces something new and which has some novel identity. Socio-Economic status is another aspect of a specific personality of an individual living in a specific society. According to Good (1959, p. 581) "Socio-Economic Status is the indication of both the social and economic achievement of an individual or group." According to Kappuswamy (1959, p. 1-10) "The three variables that contribute to the socioeconomic status in urban area are education occupation and income." According to Kalia and Sahu (2012, p. 2) "The term socio-economic status includes the information about education, occupation and income which determines the socio-economic status of the parents of adolescents as measured by socio-economic status." Socio-Economic Status would therefore be ranking of an individual by the society he lives in, in terms of his material belongings and cultural possessions along with the degree of respect, power and influence he/she wields. In India socio-economic status is directly propositional to the economic status of the family, which is never correctly told to avoid the payment of income tax.

Significance of the study

Creativity is the innate power of the student. Also Socio-Economic Status of family plays an important role in the development of a child. A good socio-economic status of the family has a great bearing on the child's development. Differences in financial capacity create

difference in the kind of opportunities provided for the child's development. The present study entitled a study of creativity of students in related to their socio-economic status is designed to find out the impact of socio-economic status on creativity. Various studies related to socio-economic status depicted that Socio-Economic Status influences various aspects of growth and development. Moreover in the changing scenario it is also very significant to know the socio economic status and creativity level of the students, where there are so many fluctuations in the economy of a family, state and country.

Statement of the problem

A study of Creativity among Senior Secondary School Students in relation to their Socio-Economic Status.

Operational definitions

Creativity

In the present study, Creativity is the ability to think differently/ adventurously in terms of Fluency, Flexibility and Originality.

Socio-Economic Status

In the present study Socio-Economic Status of a person is his/her position in any given group, society or culture as determined by wealth, vocation and social class with which he/she is related.

Objectives

- To study the creativity among senior secondary school students.
- To find out the socio-economic status of senior secondary school students.
- To find out the difference between boys and girls in relation to creativity.
- To find out the difference between boys and girls in relation to socio-economic status.
- To study the relationship between creativity and socio-economic status of senior secondary school students.

Delimitations of the study

- The present study was delimited to District Faridkot of the Punjab state.
- The present study was involved only 150 students(75 boys & 75 girls)
- The present study was involved only Senior Secondary School Students.

Review of related literature

All the above studied have been done by researchers. They found that different-different results by researching on the creativity and socio-economic status. The review of related literature shows different results in relation to creativity and socio-economic status Verma & Sinha (2011, p. 13-15) found that creativity score of respondents belonging to low socioeconomic status group and suggested that creativities belonged to high socio-economic status group. Upadhyay (2013, p.105) results indicated that there is no significant difference in the creativity level of students at different socio-economic status level of students. Wadhwa &Yadav (2013, p. 119) found that the girls and boys of English medium schools possess more creativity and they were good achievers than the girls and boys of Hindi medium schools. There was no impact of creativity on academic achievement. Kamal (2014, p. 32-34) found a significant positive correlation exists between socio-economic and depression in adolescents. Reddy et al. (2014, p. 21-32) revealed that the value preferences of secondary school students are moderate and there is significant difference in value preferences of students with respect to their socio-economic status and type of management of the schools.

Hypotheses

1. There are no significant relationship between creativity and socio-economic status.
2. There is no significant difference between boys and girls in regards to creativity.
3. There is no significant relationship between boys and girls in regards to socioeconomic status.

Method and procedure

The sample for the present study comprises of 150 students selected randomly from District Faridkot. The investigator is use random sampling to select the schools and to select students for the study. The sample is balanced

among boys and girls. The sample is divided into 75 boys and 75 girls of senior secondary school students. Add sampling techniques schools were selected according to the convenient to the research. Sampling was used to convenient from each school the students the students were selected randomly and voluntarily.

Results and discussion

Based on the objectives, the hypotheses were verified by applying the required statistical techniques.

To study the Creativity among Senior Secondary School Students.

In order to attain the objective to study the Creativity among Senior Secondary School Students Mean, Standard Deviation and Frequency Distribution were drawn.

Table I: Showing Frequency Distribution of Creativity among Senior Secondary School Students

Class Interval	Frequency	Frequency Percentage	Cumulative Frequency	Cumulative Frequency Percentage
57-64	8	5.3	150	100
49-56	45	30	142	94.66
41-48	59	39.33	97	64.66
33-40	26	17.33	38	25.33
25-32	9	6	12	8
17-24	2	1.3	3	2
9-16	1	0.6	1	0.6
0-8	0			
Total	150	100		

Mean= 45.03; S.D. = 8.17; Range=8

It may be observed from the Table I that 39.33% of senior secondary school students have scored in the range of 41-48, having mean value of 45.03. The percentage of senior secondary school students which have scored above the mean score is 35.3%, while the percentage of senior secondary school students which have scored below the mean is 25.33%.

The mid value from the Ideal Value (64) is 32 whereas the obtained creativity score is 45.03, which is higher than the mid value. So the obtained score i.e. 45.03 is considered as Above Average. Hence, Senior Secondary School Students have Above Average Creativity. There are so many reasons which may be the reasons for higher creativity scores among senior secondary school students, including congenial environment of school, curriculum & various co-curricular activities.

To find out the Socio-Economic Status of Senior Secondary School Students

In order to achieve the present objectives Mean & S.D. was calculated.

Table II: To find out the Socio-Economic Status of Senior Secondary School Students

Socio-Economic Status of Senior Secondary School Students		
Mean	**S.D.**	**Interpretation**
51.20	4.92	Middle Class

From table II, it is indicated that Mean scores of Senior Secondary School Student 51.20 which falls in the qualitative norms of Middle Class. So, most of Senior Secondary School Students are belong to Middle Class Families. Out of 150 respondents only one Senior Secondary School Student belongs to Higher Socio-Economic Status. Similarly a single Senior Secondary School student belongs to Lower Socio-Economic Status.

To find out the difference between Boys and Girls in relation to Creativity

Table III: To find out the difference between boys and girls in relation to Creativity

Creativity among Boys and Girls				
Category	**Mean**	**S.D**	**T- ratio**	**Interpretation**
Boys	42.24	9.11	3.27*	Significant
Girls	48.32	5.85		

*Significant at 0.05 levels of confidence.

From table III, it is indicated that the mean scores of Creativity in boys and girls are 42.24 and 48.32 respectively. The t-ratio is found to be 3.27; whereas t-critical at 0.05 level of confidence, is 1.98. The calculated t-ratio is significant at 0.05 levels. So, there exists a significant difference in Creativity between Boys and Girls in Senior Secondary School students.

In today's scenario Boys and Girls are getting equal opportunities in all the fields, whether if is education or games or other co-curricular activities. Academic achievement of girls may be one of reasons behind their higher scores on Creativity. From the last years girls are higher in academic achievement than boys. The presents results of Senior Secondary School related to PSEB also revealed the higher academic achievement of girls. Darshveer Kaur Kalsi of Ludhiana & Saima Rashid of Ropar achieved 100% marks at Senior Secondary Level. The measure of Creativity in girls is more (48.32) than the mean score of boys. Hence girls are more creative than boys.

To find out the difference between boys and girls in relation to Socio-Economic Status.

Table IV: To find out the difference between boys and girls in relation to Socio-Economic Status.

Socio-Economic Status				
Category	**Mean**	**S.D**	**T- ratio**	**Interpretation**
Boys	51.62	5.27	0.80	No Significance Difference
Girls	50.99	4.28		

From table IV it is indicated that the mean scores of Socio-Economic Status are 51.62 and 50.99 respectively. The t-ratio is found to be 0.80; whereas t-critical at 0.05 level of confidence, is 1.98. The calculated t-ratio is not significant at 0.05 levels. So, there is no significant difference in Socio-Economic Status between Boys and Girls Senior Secondary School students.

The researcher assumed that the present results may be obtained due to same locality of the students. There is less than difference in Socio-Economic Status in boys and girls.

To study the relationship between Creativity and Socio-Economic Status of Senior Secondary School Students

Table V: Showing the relationship between Creativity and Socio-Economic Status of Senior Secondary School Students

	Mean	**Correlation**	**Mean**	**Socio-Economic Status**
Creativity	45.03	0.027	50.99	

From table V it is indicated that there exist a positive correlation (r=0.027) between Creativity and Socio-Economic Status of Senior Secondary School Students. But the obtained r- value 0.027 is not significant at 0.05 levels of confidence. So, there exist no significant relationship between Creativity and Socio-Economic Status of Senior Secondary School Students.

Conclusions

Based on the obtained results and verification of hypotheses researcher had drawn the following conclusions:

- Senior Secondary School Students have Above Average Creativity.
- Most of Senior Secondary School Students belongs to Middle Class Families.
- There exists a significant difference in Creativity between Boys and Girls in Senior Secondary School Students.
- Girls Senior Secondary School Students are more creative than boys.
- There is no significant difference in Socio-Economic Status between Boys and Girls Senior Secondary School Students.
- There exist no significant relationship between Creativity and Socio-Economic Status of Senior Secondary School Students.

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EDUCATIONAL THOUGHTS OF VIVEKANANDA AND ITS IMPACT ON NPE-2020

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ABSTRACT

Education is 'Bunch of Values'. Swami Vivekananda says "We want that education by which character is formed of mind increased, the intellect is expanded and by one can stand on one's feet." Today`s education in a way leads us astray in the direction of materialism, which makes the division of people as high and low, where as the ancient India education established unity and concord of humanity. Our present dayeducation aims only at scoring high marks for the students to become either a Doctor, or a Lawyer, or an Engineer, or other professional. Mostly the aim is to earn maximum money possible. Education does not aim of imbibing human values. Therefore, there is an urgent need to re-introduce value based education dealing specifically with human values, to redesign the fabric of our educational system. A child's mind is like soft clay and can be moulded to any desired shape. Thus, this is the right time and age to impart value education so that the right impressions formed in the child'smind will guide him throughout his life. Such life will definitely be based on moral and just principles. Vivekananda's educational thought can be effectively embided in to a person's character. Swami Vivekanandawas not only a social reformer, but also the educator. His contribution to the awakening of modern India is critique in its kind and quality. If education is viewed as the most powerful instrument of social change, his contribution to educational thought is of paramount importance. He declines education as 'the manifestation of perfection that is already in man'.

Keywords: *Vivekananda's Educational Thoughts, Aims of Education according to Vivekananda, Today's Education, Swami Vivekananda's Quotes on Education, Vivekananda's Idea of Reformation. Importance of Vivekananda's Educational Thought In Present day's education.*

Introduction

Today India is badly in need of Value Education which inculcates among the young students values that they need to imbibe and embalm within them. Swami Vivekananda says "We want that education by which character is formed of mind increased, the intellect is expanded and by one can stand on one's feet." In present scenario where we live, the society values material gains and profits above all. It is not an exaggeration if to say that in this materialistic era of science and technology. Everything except morality has reached to its echelon. Values unlike other aspects have gone into abysses where human existence and its future looks dismal and in dark. Though every nation is worried about the continuous corrosion of values yet no serious action has been taken by any of the nations for the restoration of values. Even our current system of education is oriented towards giving knowledge and skills that would make students saleable products and nothing else.

This education system is increasing inferiority complex. Students are mugging up instead of understanding the concept and implications of the subjects. No education can be called national unless it, inspires love for the nation, love to learn and love to nurture the ancient culture, value, tradition and valuable knowledge of the nation.

Methodology

In this paper, the research was based on secondary data, taken from different Books, research reports, journalsand research papers.

Objectives of the Study

1. To identify the Swami Vivakananda's educational thought and their meanings.
2. To find out the necessity of Vivakananda's educational thought for human beings especially for studentcommunity.
3. To find the factors of Vivakananda's educational thought that helps in creation of value-education.

Vivekananda's Educational Thought

It is said that, a poor teacher tells, an average teacher explains, a good teacher demonstrates, a great teacher inspires. Vivekananda was a great teacher and also a great educationist. As him the aim of education is the knowledge, not of

facts but of values. Since ages of human evolution human being constantly strived to attain highest state of attainment of peace, prosperity, happiness and the feeling of fullness. He presented the true India to the whole world. The concept of Vasudhaiva Kutumbakam-the world is one family-is the only beacon light for survival, growth, and real progress for human society, particularly in the strife-torn world of today.

Swami Vivekananda realized three things are necessary to make every man great, every nation great:

1. Conviction of the powers of goodness;
2. Absence of jealousy and suspicion;
3. Helping all who are trying to be and do well.

According to Him education is a continuous process; it should cover all aspects of life physical, material, intellectual, emotional, moral and spiritual. His attitude towards modernization is that the masses should be educated before anything else is done. Swami Vivekananda's educational philosophy is based on his general life. He was a Vedantist educationalist. He had propounded faith in Advaita Vedanta or non-dualism. God is Supreme, Infinite, One, and Formless. He is Infinite Existence, Infinite Knowledge and Infinite Bliss. Every living being including man is a part of the Higher or Eternal self. In 'Raja Yoga'he says "Each soul is potentially divine." All men are children of God. According to him Faith has to be cultivated in man. This faith is triple in nature-faith in one's own self, faith in the nation, and faith in God. God can be realised through service to living creatures. Service to living beings means service to God. This truth of Vedanta has to be practised and cultivated in life. This is known as "Practical Vedanta'-the essence of which is service to God in man. Vivekananda was an eclectic thinker and educationist. He believed in essential unity of man and God. He tried to unit Indian spirituality and Western materialism. He also tried to unit Para Vidya (Supreme knowledge) and Apara Vidya (material knpwledge).

Vivekananda criticised the present system of education. Vivekananda advocated 'man-making education's man is the highest temple. Vivekananda believes that "education is the manifestation of the perfection already in man." "Perfection is already inherent in man and education is manifestation of the same." Knowledge resides within the individual himself. All knowledge –secular or spiritual-is in the human mind. Knowledge is inherent in man, no knowledge comes from outside, it is all inside. An individual simple discovers the knowledge inherent in him. When the covering is being slowly taken off, learning takes place. Man must discover himself. The discover will help the expansion and enrichment of the soul. The student has himself to discover, himself to learn and himself to teach. Thus, according to Vivekananda, education is the discovery of the inner self. For Vivekananda education is not the amount of information put in to one's brain, which may be there undigested all one's life. It is rather a life-building assimilation of ideas. As Him "If you have assimilated five ideas and made them as your character, you have more education than any man who has got by heart the whole library. If education were identical with information, the libraries would be the greatest sages in the world and encyclopaedias the greatest Rishis."

Vivekananda considers education as a part of human life. Real education is that which one can stand on one's feet. Swamiji says "The end of all education, all training should be man-making." Creation of self-confidence and self-realisation should also form the aims of education. Education must make a man conscious of his hidden powers. In Swamiji's own words: "Faith in our self and faith in God-this is the secret of greatness." Vivekananda emphasised on formation of character through education. He says" The end of education is character-building." Generally, character is regarded as self-regarding sentiment. According to him character is aggregate of a man's tendencies, the sum-total bent of his mind. Good and evil thoughts equally mould the character of an individual. Education should aim at sublimating the evil tendencies of our mind. Moral and Ethical education can help greatly in this regard.

Swamiji laid emphasis on the development of integrated personality. This is possible only through total or many- sides development of personality such as intellectual, physical, social,

moral, emotional and aesthetic. He wanted to combine the intellectual of a Shankara and the heart of a Buddha. According to Him "personality is two-third and his intellect and words are only one-third in making the real man."

Swamiji emphasised on the personality of the teacher in education. True education is only possible through intimate personal contact between the teacher and the taught. For this purpose he wanted to revive the old Gurukula system of education. Vivekananda regards the child as the pivotal point of education. He is the store house of Knowledge. Vivekananda lays emphasis on the discovery of inner knowledge. Until the inner teach opens, all outside teaching is vain.

Aims Of Education According To Vivekananda

1. Reaching Perfection

The main aim of education is to achieve extensive perfection already in man. Vivekananda opined that all material and spiritual knowledge is already present in man covered by curtain of ignorance. Education should tear off the veil so that the knowledge shines forth as an illuminating torch to enliven all the corners by and by.

2. Fulfilment of Swadharma

According to Swami Vivekananda, Everyone has to grow like himself/herself. No one has to copy others. It is hence that he condemned the imposition of foreign education. He asked, "Getting by heart the thoughts of others in a foreign language and stuffing your brain with then and taking some university degree, you can pride yourself as educated. Is this education?" True improvement is self inspired. There should not be any type of external pressure on the children. Hence Vivekananda suggested, "If you do not allow one to become a lion, he will become a fox."

3. Creating Self-Confidence

An individual may have many qualities within himself without being conscious of the same. It is the function of education to make him conscious of the same. With this consciousness he may reach any height. "Wake up rise and do not stop till your aim of life is achieved."Vivekananda wants to inculcate this sprit in a student through education.

4. Unity in Diversity

The true aim of education is to develop insight into the individuals so that they become able to search out and realize unity in diversity. Vivekananda said that physical and spiritual worlds are one; their distinctness is an illusion. Education must be capable of developing this sense which finds unity in diversity.

5. Character Formation

Character is the aggregate of a Man's tendencies, the sum –total of the bent of his mind. We are what our thoughts have made us. It is, therefore, that education should aim at sublimating the evil tendencies of our mind. Swamiji said, "We want that education, by which character is formed, strength of mind is increased, intellect is expanded and by which one can stand on one's on feet."

6. Physical and Mental Growth

One of the important aims of education is physical and mental development of the child so that the child, aftercompleting his/her education can become able to promote national growth and advancement as a fearless and physically well developed citizen of tomorrow. Stressing the mental development of the child, Swamiji wished education to enable the child to stand on his own legs economically rather than becoming a parasite on others.

7. Moral and Spiritual Development

According to Swamiji, a nation's greatness is not only measured by its parliamentary institutions and activities, but also by the greatness of its citizens. But the greatness of citizen is possible only through their moral and spiritual development which education should foster.

8. Religious Development

According to Swamiji religious development is an essential aim of education. To him, each individual should be able to search out and develop the religious seed embodied in him and this will help in finding out the absolute truth or reality. Hence he advocated the training of feelings and emotions so that the whole life is purified and sublimated. Then only, the capacities of obedience, social service, and

submission to the teachings and preaching of great saints and various other good qualities will develop in the individual.

9. Promotion of Universal Brotherhood

Swami Vivekananda's love for mankind knew no geographical boundaries. He always pleaded for the harmony and good relationship of all nations. He said, "Through education, we should gradually reach the idea of universal brotherhood by linging down the walls of separation and inequality. In every man, in every animal, however weak or miserable, great or small, resides the same omnipresent and omniscient soul. The difference is not in the soul, butin manifestation."

Today's Education

Today, the world is suffering from immense crisis from many sides. Crimes, conflict, hatred and distrust between one community and another, hunger, unemployment, poverty and literacy, paucity of resources and pollution of environment, deforestation and desertification, swelling number of migrants and refugees, ethnic and sub-national violence, terrorism, drug trafficking, AIDS etc., all these altogether make a grave danger to peace. The present day crisis is greater than the crisis that occurred during the time of Vivekananda. The world is now full of violence.

Today`s education in a way leads us astray in the direction of materialism, which makes the division of peopleas high and low, where as the ancient India education established unity and concord of humanity. In the present modern materialistic society, there is no proper place of values. Our modern political system is party and percentage of vote based not moral based. Our economic policy is production centred and profit based, not human centred. There is no relationship between our modern economics and ethics. Our social system is full of communal and ethnicconflicts. Now-a-days social injustice has become an accepting phenomenon. In our judicial system, "all are equal but some one more equal". Like other system our educational system is also deviated from ethics and values. Our goal of education is changed from character building to mark scoring.

Our education is non functional and uninspiring. In general our education is far from being a preposition for complete living. We have little scope for freedom and initiative. Education only aims at making the students enter professional colleges. They are tutored only their subjects and not real values.

Swami Vivekananda's Some Quotes On Education

1. All the wealth of the world cannot help one little Indian village if the people are not taught to help themselves. Our work should be mainly educational, both moral and intellectual.
2. Educate and raise the masses, and thus alone a nation is possible.
3. Education has yet to be in the world and civilisation — civilisation has begun nowhere yet.
4. Education is not filling the mind with a lot of facts. Perfecting the instrument and getting complete mastery of my own mind [is the ideal of education].
5. Education is the manifestation of the perfection already in man.
6. How can there be any progress of the country without the spread of education, the dawning of knowledge?
7. If education is identical with information, the libraries are the greatest sages in the world, and encyclopaedias arethe Hrishis.
8. If the mountain does not come to Mohammed, Mohammed must go to the mountain. If The poor boy cannot come to education, education must go to him.
9. The only way to bring about the levelling of caste is to appropriate the culture, the education which is the strength of the higher castes.
10. There is only one purpose in the whole of life — education. Otherwise what is the use of men and women, landand wealth?
11. We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet.
12. You cannot teach a child any more than you can grow a plant. All you can do is on the negative side—you canonly help. It is a

manifestation from within; it develops its own nature—you can only take away obstructions.

13. No more weeping, but stand on your feet and be men. It is a man making religion that we want. It is man-making theories that we want. It is man-making education all round that we want.
14. After so much austerity, I have understood this as the real truth God is present in every jiva; There is no other God besides that. 'Who serves jiva, serves God indeed.'
15. Good motives, sincerity, and infinite love can conquer the world. One single soul possessed of these virtues can destroy the dark designs of millions of hypocrites and brutes.
16. Every challenge has opportunity Hidden in it, it you direct your Mind correctly you will be always Victorious.
17. You have to power to make or destroy your Life. From today blame none and direct your Mind to achieve yourGoal.
18. Truth, purity, and unselfishness whenever these are present, there is no power below or above the sun to crush the possessor thereof. Equipped with these, one individual is able to face the whole universe in opposition.
19. You cannot believe in God until you believe in yourself.
20. You have to grow from the inside out. None can teach you, none can make you spiritual.
21. They alone live, who live for others.
22. Comfort is no test of truth. Truth is often far from being comfortable.
23. Ask nothing; want nothing in return. Give what you have to give; it will come back to you, but do not think ofthat now.
24. Do one thing at a Time, and while doing it put your whole Soul into it to the exclusion of all else.

Vivekananda's Idea of Reformation

The uniqueness of Vivekananda's reformation is that he realized the inner meaning of Sannyasi. Practically sannayasi means the dedicated one whose aim is self-realization or God realization. Swamiji dedicated himself to society; his aim was to serve the people. His god was existent in the sorrow of the common people.

Vivekananda's concept of reformation and its method is novel in nature. According to Him reformation is constructive; it is a 'growth'. He does not believe in any kind of destruction. He realizes the virtue of Reformation. It must be patient, sympathetic and hopeful. He clearly discriminates between construction and destruction. If reformation follows violent reaction, this can only affect the surface of the thing. Perhaps of the time being some profit may be gained; but ultimately the evil and abuse cannot be removed. This very idea is uttered by him in his article 'My Plan of Campaign'. There he says that man must go down to the very basis of the thing, to the very rootof the matter; that is what he calls 'radical reform'. Again he says that the solutions of the problems are not so easy;it is big and a vast one. We should not be in a hurry. The process of creation and construction develops in natural growth, and time is the solution of this natural growth.

Vivekananda accepts the method of construction which is based on two stands: one is his earnest desire to remove the sorrows of the down-trodden people in society. Again, this earnest desire springs from love. As he saysthat inspiration comes through the heart. Love opens the most impossible gates; love is the gate to all the secrets ofthe universe.

The other is the preparation for the cultural development of human beings. He points out that the social state depends on self-development of human values, not only laws. These two stands are related to each other. The well being of a social individual depends on his freedom in getting food and clothes and his field of expression of his goodness of character. And he mentions this point is reference to civilization. He says that the permanence of our civilization depends upon the well-being of the people.

With these two stands Vivekananda placed the Reformation in actual social context. The sorrows of the down- trodden are rooted in

varies evils in society, he realized. The evils are: (i) Poverty in general, (ii) Widows in tears,

(iii) Ignorance,(iv)Tyranny of the authority over the weak and (v)Untouchability.

To remove these evils the first duty is to educate the people. According to Vivekananda, education is the power to comprehend the problems of life. And these knowledge liberates human life. As Vivekananda says in the discussion on 'Vedanta and Indian life', that liberty is the first condition of growth.

By education Swamiji does not mean the huge process which is carried on in our school and colleges. He puts emphasis on that education which can sweep away the ignorance and superstitions of the mind so that people can stand on their own feet, they can solve their own problems. He points out this very idea in the "Conversation and Dialogues'. He says that mere book-learning won't do. We want that education by which character is formed, strength of mind is increased, intellect is expanded and by which one can stand on one's own feet.

Importance of Vivekananda's Educational Thought in Presents Day's Education

Since the world is becoming a global village because of technology, it is important that students are able to relate well to people from different countries, races and religions. There is a greater need to acquire a subtle understanding of the thoughts of Swami Vivekananda on learning to live together and in universal brotherhood. Widespread awareness of his thoughts and ideas amongst teachers and would-be teachers is particularly important as they have the responsibility of educating the young. All teachers and educationalists should be reflecting on their own teaching and asking themselves, "Am I teaching my students how to learn? What skills am I giving my students that will help them adapt new situations? What opportunities am I giving my students to relate to others successfully? What guidance am I giving my students to enable them to make wise choices after due reflection? At this juncture the concept of education given by Swami Vivekananda seems more vital than ever before. If we strengthen our students imparting proper values then definitely our society will be strengthen. So value Education is highly needed in our modern society because our lives have become more miserable. The quantity of education has considerably increased, but the quality has decreased. Vivekananda's educational thought is very much significant today, which is based on Vedanta and He is the only monk of the Hindu society who realise if people apply Vedanta in their practical life then the society can change. Vivekananda transformed Vedanta in practice. He simplified Vedanta so that even a normal person could easily identify and relate with Vedanta`s terms in daily life.

According to Him man is a compound of animality, humanity and divinity. The aim of education should be to help him grow from the animal to the divine state, through self effort, self realization and proper training. If modern India has failed in any domain, it is undoubtedly in the arena of producing genuine human beings, the key component of developed society, through a perfect education system.

Today we live in twenty first century. It is an age of inventions and makes innovations. Swamiji's educational thought has very great significance today because modern education has lost much of its connection with the values of human life. Therefore, he suggested that education should not be for stuffing some facts into the brain, but should aim at reforming the human mind. True education to him, was not for the carrier, but for the contribution to the nation. He is no more but he will be remembered for ever on this Universe. His missions and his preaching are will continue inspiring the coming generations.

According to Him, if we want to make our students as a moral human being, school curriculum is one of the best ways to serve this purpose. Because he think that moral values can be inculcated among our students through a value based school curriculum. Vivekananda suggested some important moral values which should be included in our school curriculum.

- **Unconditional Love and Kindness:** In most cases, if you love someone, he or she will love you back in return. This, however, is not the real meaning of love. Love should be unconditional. With more

love in the world, kindness will follow and replace cruelty.

- **Honesty:** Students must be taught that dishonesty and cheating is wrong, and will get you nowhere in the future. As a student, one is only hurting himself or herself by cheating, because this action will eventually catch up to you in the end with bad consequences.
- **Hard Work:** Nowadays, so many students want to cheat and cut corners in their studies, because they are lazy and don't place any value on hard word. This thinking must change.
- **Respect for Others:** Unfortunately, in our highly competitive dog eat dog society; many people will tread on others to get ahead in life. Respect for others should include respecting different religions, races, sexes, ideas, and life styles.
- **Co-operation:** To achieve a common goal, it is necessary for all people to work together. If this is not done, a few people may profit, but the end result for everyone will be a failure. I still believe in the motto, "unitedwe stand and divided we fall."
- **Compassion:** Compassion is defined as being sensitive to the needs of people. If there were more compassion in the world, there would be less homeless, hunger, wars, and unhappiness.
- **Forgiveness:** Anger in most cases is caused by unwillingness to forgive. There would be less violence and fighting in school if students could learn this moral virtue.

Conclusion

Our history and mythology taught us of excellent value education. But the importance of providing value education is felt necessary today because the present system of education cannot contribute much to the individual and social development. To conclude it can be stated that Vivekananda has foreseen that mankind is passing through a crisis. Conflicts of ideals, manners and habits are pervading the atmosphere. Disrespect for everything old is the fashion of the day. Many years will pass, many generations will come and go, Vivekananda and his time will become the distant past, but never will there fade the memory of the man who all his life dreamed of a better future for the people, who did so much to awaken his compatriots and move India forward, to defend his much suffering people from injustice and brutality. From the analysis of Vivekananda's thought of education, it is clear that the uplift of masses is possible only through proper education.

Vivekananda was a great educationist and he revolutionised almost the entire field of education. His educational views were immensely influenced by the eternal truths of Vedanta. He inspired millions of Indian Youths by his revolutionary ideas of education. He infused a new sprit in the national blood. He strongly advocated national education on national lines and based on national cultural tradition. Vivekananda's practical-oriented approach to education is highly suitable for the modern age of Science and Computer Science, Technology and Information Technology

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SELF-CONGRUENCE FACETS AND EMOTIONAL BRAND ATTACHMENT: ROLE OF PRODUCT INVOLVEMENT AND PRODUCT TYPE

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ABSTRACT

Consumers have emotional bond with the brands that are closer to their self-concept. The product involvement is consumers' perception of relevance of a product with needs, goals and consumers' self-concept. Therefore, the study aims to reconsider the role of product involvement in the association of self-congruence facets and emotional brand attachment. Furthermore, the study investigates the association of self-congruence facets and emotional brand attachment depending upon product type. The study followed a mixed method research approach and involved a focus group study and a survey. Hypotheses testing (through AMOS and Process Macro) indicated that ideal self-congruence yielded substantial influence on product involvement and emotional brand attachment. Whereas, ideal self-congruence direct effect on emotional brand attachment turned out to be insignificant in presence of mediator. Furthermore, the effect of product involvement on emotional brand attachment significantly depends upon product type. The conditional indirect effect of self-congruence facets was stronger for hedonic brands as compared to utilitarian brands. The study contributes to marketing literature by discovering product involvement as processing mechanism between the debate of self-congruence facets and emotional brand attachment. The study is first in nature to investigate the moderating role of product type in the relationship and exploring conditional indirect on emotional brand attachment.

Keywords: *Actual self-congruence, ideal self-congruence, product involvement, emotional brand attachment, hedonic brands, utilitarian brands, Indian consumers.*

1. Introduction

Marketing practitioners and researchers engage in seeking unique ways to develop, enhance and uphold the consumer brand relationships over the long period of time. The strength and direction of relationships largely influence decisions making process and buying behavior of consumers (Japutra, Ekinci, & Simkin, 2014). The companies in this increasingly competitive environment are striving on to develop relationships with customers in the form of long-term bonds/connections to enhance trust, commitment, and loyalty (Levy & Hino, 2016; Louis & Lombart, 2010). The consumers being poignant tend to create emotional connections or positive affect toward the brands they interact, experience or encounter (Grisaffe & Nguyen, 2011). Several perspectives exist to develop and enhance emotional brand attachment, such as anthropomorphization (Swaminathan, Stilley, & Ahluwalia, 2008), motivational perspective (Ashworth, Dacin, & Thomson, 2009) and self-expansion (Park, MacInnis, Priester, Eisingerich, & Iacobucci, 2010). Communicating brands imbued with consistent personality to consumers' self-image are always preferred by the consumers (Chaplin & John, 2005). Resultantly, concept of self-congruence has been established as a prominent predictor of emotional brand attachment as compared to aesthetic pleasure (Park, MacInnis, & Priester, 2008), experience, responsiveness, quality and reputation (Japutra et al., 2014).

Product involvement is considered as an imperative element in influencing the consumer brand processes (Hudson, Roth, Madden, & Hudson, 2015), cognitive responses, brand loyalty and consumer-brand relationships (Ferreira & Coelho, 2015). However, it further needs attention due to lack of understanding (Khare, 2012; Olsen, 2007), inconsistency and limited conceptualizations in prior research (Xue & Phelps, 2013). For instance, several studies in prior research operationalized product involvement as a moderating variable (Bernritter, van Ooijen, & Müller, 2017; Bian & Moutinho, 2011; Chung & Zhao, 2003) and others treated as mediator variable (C.-C. Chen & Chiu, 2009; Cruz, Leonhardt, & Pezzuti, 2017; Gendel-Guterman & Levy, 2013; O'Cass, 2004). The concept of product involvement is conceptualized as the perception of association

of self concerning needs, goals, and consumer self-concept (Ferreira & Coelho, 2015; Srivastava & Sharma, 2011). In this context, the product involvement might entail the self-concept congruence with the actual or ideal self of individual during evaluation of brands. Therefore, the inconsistency in the prior literature emphasized the need to reconsider the product involvement role in association of self-congruence facets with consumers' emotional brand attachment (Fu, Kang, & Tasci, 2017).

Moreover, through consuming products and/or brands, consumers seek customer value which can be classified in to: i) utilitarian value and ii) hedonic value, and respectively utilitarian brands and hedonic brands (Rintamäki, Kanto, Kuusela, & Spence, 2006). In this scenario, the differential role of brand types had tremendous importance and emerged as key area in marketing research (Chitturi, Raghunathan, & Mahajan, 2008). Consumers' consumption decisions between utilitarian and hedonic value involve a sense of self struggle between the will of being prudent and pleasure seeking (Keinan & Kivetz, 2008). Hedonic purchases tend to be more difficult to explain and rationalize (Kivetz & Zheng, 2017), more conscious, involved and discretionary over the utilitarian purchases (Choi, Li, Rangan, Chatterjee, & Singh, 2014; Okada, 2005). Therefore, the relationship of actual self-congruence and ideal self-congruence with respect to emotional brand attachment may vary across the product type due to the distinct attitudinal motives in consumers (Rintamäki et al., 2006). Despite the fact, surprisingly, prior literature overlooked the differential effect of brand types in the relationship of actual self congruence and ideal self-congruence with emotional brand attachment.

Extending beyond the preceding literature (Huang, 2017; Japutra et al., 2014; Malär, Krohmer, Hoyer, & Nyffenegger, 2011), the study is unique in nature to examine product involvement as a processing mechanism in the relationship of self-congruence facets and consumers' emotional brand attachment depending upon the product type (hedonic vs. utilitarian). Therefore, the study aims are threefold: first, to investigate the product involvement as a processing mechanism between self-congruence facets (actual self congruence and ideal self-congruence) and emotional brand attachment. Second, to investigate the differential effect of actual self-congruence and ideal self-congruence on product involvement and emotional brand attachment. Lastly, to find out the effect of product type in association of product involvement and emotional brand attachment. The study is fruitful not only for academicians who are interested in understanding congruence-attachment relationships across the product type and but also for practitioners to better understand the drivers of emotional brand attachment.

2. Conceptual Background, Literature and Hypotheses Development

2.1 Self-Congruence and Emotional Brand Attachment

Brands are perceived as specific symbols in consumers' minds and they tend to relate these brand symbols to their self-concepts and favor those brands whose image is congruent to their self-concept (Aaker, 1999). Self-concept refers to the sum of the thinking and conception of an individual about himself/herself (Rosenberg, 1986) and has two major components- actual self-concept (the way a person currently perceive himself/herself) and ideal self-concept (the way a person wishes to perceive himself/herself) (Belch & Landon Jr, 1977). The notion of relating the self to the brand image or personality is known as self-congruence (Maehle & Shneor, 2010). These two components of self-congruence result in: i) actual self-congruence- is consumers' conception of relating actual self-concept with the personality of brand and ii) ideal self-congruence- is consumers' conception of relating ideal self-concept with the brand personality (Astakhova, Swimberghe, & Wooldridge, 2017; Koo, Cho, & Kim, 2014; Malär et al., 2011).

Self-congruence is a part of cognitive consistency theories which suggest that individuals always struggle to create and sustain synchronization between their beliefs, attitudes, and behaviors as discrepancy among them result in psychological distress, anxiety, and tension (Festinger, 1962). Consumers have

a specific image of themselves (such as self concept) that drives them to perform such actions like purchasing a brand projecting personality like their own that strengthen it over the time. Moreover, self-expansion theory postulates that individuals' instinct is to integrate others into their conception of self and they can also incorporate brands with their self-image (Aron & Aron, 1986). The more an entity (brand) is vicinal to self-definition of consumer, the higher the attachment will occur between them. Similarly, the stronger the feeling of self-connection, the stronger the emotional bond between consumer and specific brand (Kaufmann, Petrovici, Gonçalves Filho, & Ayres, 2016; Sameeni & Qadeer, 2015). A person get attached with a brand when it boosts his/her feelings of autonomy and relatedness; and enables, gratify and enrich the self-concept by extending sensory and aesthetic pleasure of individual (Park et al., 2008; Thomson, 2006).

The self-verification theory argues that human beings expect others to perceive them, in the way they perceive themselves and that is irrespective of positive/negative self-views (Swann Jr, 1983, 2012). They engage in activities of verifying, validating and sustaining their existing self-concepts (Huber, Eisele, & Meyer, 2018). In order to develop actual self-congruence, consumers search the experiences that verify and support their self concept and avert that can threaten or weaken their self-image (Hixon & Swann Jr, 1993). Moreover, self-verification need evokes consumers to involve in behaviors which reinforce their actual self. Consumers can achieve the feelings by buying the brand which provide consistency between consumers' self and the brand personality (Malär et al., 2011). Moreover, the self-enhancement motive is the prompting factor in ideal self congruence that motivates people to enhance their self-concepts and seek information to increase their self-esteem (Huber et al., 2018; Sedikides & Strube, 1997). Self enhancement theory proposes that individual's self-concept is considered as a valuable possession, they are more likely to involve in activities and actions that enhance their selves and strengthens self-esteem (Sedikides & Strube, 1997). Consuming a brand imbued with consistent brand personality (with ideal self) bring consumers closer to their aspirations (Grubb & Grathwohl, 1967). Therefore, consumers may be attracted and get emotionally attached to the brands that personify their desires and aspirations, i.e., ideal self-congruence (Huber et al., 2018; Liang, 2015; Malär et al., 2011).

2.2 Product Involvement

Involvement construct can be traced back from the literature of psychology and defined as the extent of affect and concern concerning some object (Lesschaeve & Bruwer, 2010). Involvement can be conceptualized based on three approaches: cognitive approach, individual approach and response approach (Laaksonen, 1994). The study followed cognitive approach (can be referred to as the extent of relevancy between an object and consumers depending upon consumers' interests, necessities, morality, ambitions, and self-concept) due to its relevance and significance with individual's self. The conceptualization corresponds to Park and Mittal (1985) "enduring-state" perspective of involvement, which entails affective meaning of the product. In the enduring state, consumers are keenly concerned and tend to relate their self-image with the meaning of product (Michaelidou & Dibb, 2008). In this perspective, involvement is referred to as the individual's internal psychological state or perceived importance of stimulus (brand) (Bloch, 1981) or the extent of attention and provocation with respect to stimulus (Browne & Kaldenberg, 1997). Likewise, prior research also conceptualized as the degree of individual concern, long-term interest and attachment for particular product type (Bloch & Bruce, 1984).

Product involvement is the personally relevant knowledge of the product and can be determined by the level of interest and arousal in consumers. It is considered as the predecessor in several product-related decisions of consumers (Park & Mittal, 1985) and compels consumers to access detailed information about the brand (Higie & Feick, 1989). When a consumer finds something personally significant, he gets into such an impelling state that drives his cognitive behavior, i.e., comprehension, information search, and intention or emotional responses

(Celsi & Olson, 1988). The involvement is directly associated with self-concept, values, and ego of consumers and entails both the individuals (consumers) and product conditions (Khare, 2012). The proximity of brand to consumers' self, enhances the involvement with the brand (Solomon, 2014). More specifically, a product with a higher fit/match between self-concept of consumers will enhance consumer involvement in the product (Khare, 2012; O'Cass, 2000).

Consumer purchase decisions are largely based on their interest, attention (Ferreira & Coelho, 2015) and self-interest, self-concept toward an object (Bloch, 1981). The attention can be termed as involvement with the product, which develops a personal attachment with the brands (Michaelidou & Dibb, 2008) and as much as the stimuli are perceived related with the consumer's self (Celsi & Olson, 1988). Emotional feelings of the customer are based on the extent of involvement with the product (Thomson, MacInnis, & Park, 2005). Therefore, consumers are required to be involved with products to develop strong emotional bond with the brand (Levy & Hino, 2016).

Research in psychology indicates that the act of self-verification indulges consumers in the considerable cognitive efforts and the tendency will be higher when consumers are provoked to think about it (Swann Jr, Hixon, Stein-Seroussi, & Gilbert, 1990). Most of the consumers process information deeply when they are involved with the product. Hence, highly involved consumers will have higher motivations to indulge themselves in the cognitive effort for self-verification (Petty & Cacioppo, 1986). Applying the characteristics of interpersonal relationship on brand relationships (Fournier, 1998); consumers prefer brands that reflect their actual selves, which cause them to process information deeply leading to product involvement. The impelling state of product involvement drives their emotional responses resulting in emotional brand attachment (Celsi & Olson, 1988; Liang, 2015).

In the scenario of ideal self-congruence and brand attachment, utilization of ideally self congruent leads to the self-enhancement process that motivates the consumer's emotional brand attachment. Consumer's involvement theory states that consumers are highly involved with the products that provide them sign-value, i.e., self-enhancing benefits (Sedikides & Strube, 1997) and will get attached with them (Liang, 2015). This high involvement leads to the purchase of ideally self-congruent brands within the product class triggering consumers' affective (emotional) response towards the brand. The level of fit or match between product and individual will be stronger in the presence of involvement (Fedorikhin, Park, & Thomson, 2008). Furthermore, this is consistent with the Michaelidou and Dibb (2006) findings that consumers are more prone to get involved with products that provide the fun and pleasure and help them in expressing and enhancing their selves. Thus, selection and consumption of the brands that help consumers in enhancing their self-image (ideal self-congruence) lead to high consumer involvement (Bloch & Bruce, 1984), that generate consumer emotional brand attachment. Thus, we can hypothesize that:

H_1: Product involvement act as a processing mechanism between actual self congruence and emotional brand attachment.

H_2: Product involvement act as a processing mechanism between ideal self congruence and emotional brand attachment.

2.3 Product Type (Hedonic VS Utilitarian)

The customer value is derived from consumption of products which can be categorized as hedonic brands and utilitarian brands based on their differential motives. The hedonic brands are purchased for the sake of pleasure and fun, and possess strong affective effect of inducing consumer's emotional responses (Y.-F. Chen & Chang, 2016). Whereas, utilitarian brands are purchased merely for utility, to fulfill functional needs and practical (H. Choi & Reid, 2016). Both are unique due to their distinctive purpose in consumer's mind and the effect on consumer relationships (Kivetz & Zheng, 2017) and decision making process (Khan, Dhar, & Wertenbroch, 2005). The relationships may vary with product types derived by two different components of consumers' attitude

(cognitive and affective), which therefore leads to different responses for hedonic and utilitarian brands (Astakhova et al., 2017; Azhari & Afiff, 2015).

The consumer and brand image congruity vary across the hedonic brands and utilitarian brands (Rocereto & Mosca, 2012). Being affectively driven, hedonic brands may strengthen the relationship between self-congruence and emotional brand attachment more as compared to utilitarian brands (Voss, Spangenberg, & Grohmann, 2003). Whereas, another perspective argue that the cognitive activity involved in the selection and consumption of utilitarian brands leads towards the development of emotional brand attachment as cognition is one of the determinants of emotions in human mind (Oatley & Johnson-Laird, 1987; Rocereto & Mosca, 2012). Similarly, Lesschaeve and Bruwer (2010) proclaimed that hedonic products are expected to evoke intense involvement in consumers due to personal relevance. The pleasure-seeking purchases are a little bit more difficult to describe and rationalize and expect higher consumer involvement in contrast to utilitarian purchases (J. Choi et al., 2014). In the perspective of central route processing, hedonic and utilitarian attitudes engender distinct component of product involvement. Thus, on the basis of above arguments we can hypothesize that: H_3: Product type will moderate the indirect effect of actual self-congruence on emotional brand attachment via product involvement; the mediated relationship will be stronger for hedonic products than utilitarian products.

H_4: Product type will moderate the indirect effect of ideal self-congruence on emotional brand attachment via product involvement; the mediated relationship will be stronger for hedonic products than utilitarian products.

3. Research Methodology

The study involved a mixed-method approach (Saunders, Lewis, & Thornhill, 2016). Firstly, through focus group discussion including two faculty members and fifteen business students, utilitarian and hedonic brands were identified. The two distinct components (hedonic and utilitarian) of consumer attitude while making consumption decision were explained to the group along with the difference between utilitarian brand and hedonic brands (Batra & Ahtola, 1990; Khan et al., 2005). Then they were asked to identify each brand as hedonic or utilitarian from the list of 15 famous brands. The hedonic brands and utilitarian brands were classified by following the criteria outlined by Spangenberg, Voss, and Crowley (1997). The brand that is perceived beneficial, useful, valuable and wise was marked as utilitarian, and whereas, the brand that is perceived enjoyable, nice, gives pleasure and makes the consumer happy, was marked as hedonic.

The discussion ended with mutual consensus among all participants over the categorization of brands and preparation of two separate lists. Brands falling under utilitarian category include: Dalda Cooking Oil, Dawlance Refrigerator, Dove Soap, Gillette, Head and Shoulders, Nestle Drinking Water and Surf Excel and those falling under Hedonic category include: Coke, Dairy Milk Chocolate, I-Phone, L'Oreal, Nike, O'more Ice-cream, Pepsi, and Rolex.

Secondly, a survey of 242 undergraduate and postgraduate students enrolled in business studies in 4 randomly selected institutes (2 public, 2 private) was conducted. In classroom settings, the participants randomly received hedonic and utilitarian questionnaires. A brief introduction, basic instructions, and explanation of difficult terms were provided in the beginning. From a list of the brands, respondents were required to select a brand and then check four reasons from the list of eight reasons which best describe their reasons for selecting the brand. Four of these reasons were hedonic, and four were utilitarian. The criterion of being the consumer of a brand was that she/he must have mentioned at least three of the reasons specific to each type of product. This enabled us to validate the results of the brand classification by the focus group.

We excluded the respondents who were unable to discriminate whether the brand they are opting for is hedonic or utilitarian and then the data was screened for missing values, unengaged responses, and outliers. After these data cleaning procedures, the final usable

sample was 216 which consists of 64% females; 78% in the age category of 21-25 years; 85% single, and 70% unemployed. The greater part of the sample holds a master's degree (47%) followed by Bachelors (42%). Almost all respondents belong to middle and upper middle class (accumulating to 96.5%).

3.1 Measurements

For assessing actual self-congruence, participants were directed to presume the selected brand as a human being and ascribe some human like qualities with the brand, and then imagine your own personality (that how you view yourself currently, i.e. actual self). Once the imagination process was over, participants were required to compare the personality of brand with their own self-image and then report the degree of match or mismatch on two items rated at a five-point Likert scale with 1=strongly disagree and 5=strongly agree. Similarly, for assessing ideal self-congruence respondents perceived a match/mismatch of brand's personality with ideal self-concept (how one want to see himself/herself) on two items rated at a five-point numeric scale from 1(not at all) to 5 (very much) (Sirgy et al., 1997). Product Involvement was assessed regarding product importance and interest for the consumer with 2 items adopted from Van Trijp, Hoyer, and Inman (1996) rated at Likert scale with 1 (strongly disagree) and 5 (strongly agree). The emotional brand attachment was measured regarding consumers' feelings and emotions for the specific brand by using four items (Thomson et al., 2005) rated from 1 (not at all) to 5 (very much).

4. Data Analysis and Results

The hypotheses testing involved AMOS (version 22) and SPSS (version 22). Structural equation modeling (SEM) was run analyze the relationships due to several advantages (i.e. a confirmatory approach, refine or assess measurement errors, involve both latent and measured variables and run multiple equations simultaneously) over traditional multivariate techniques (Byrne, 2013). The SEM involves two steps: first is to develop a measurement model (CFA) and second is to structural model (testing hypotheses). Measurement model in SEM aimed to specify the patterns of measures with respect to each factor in the model. Whereas, structural model delineates affect or cause among unobserved or latent variables. In addition to this, moderated mediation hypotheses were tested through Process Macro (Hayes, 2018) in SPSS.

4.1 Measurement Model

The measurement model was evaluated by performing confirmatory factor analysis (a confirmatory statistical technique for a theory-based model) and preferred due to its robustness as compared to exploratory factor analysis (Bagozzi & Phillips, 1982). The goodness of fit indices fall within acceptable level, i.e. CFI=0.968, TLI=0.951, GFI=0.958, RMSEA=0.059 and $\chi 2/df=1.736$. Further confirmation of the hypothesized model was substantiated by analyzing alternative models' goodness of fit indices. Firstly, a three-factor model yielded goodness of fit indices below the threshold values, i.e. CFI=0.844, TLI=0.780, GFI=0.903, RMSEA=0.124, and $\chi 2/df=4.313$. Similarly, a single-factor model yielded the lowest goodness of fit indices (i.e. CFI=0.571, TLI=0.448, GFI=0.781, RMSEA=0.197, and $\chi 2/df=9.312$) as compared to four-factor model (hypothesized model) and three-factor model.

Table 1: Statistics for Construct Items and Construct Reliability

	FL	Mean	SD	Alpha	CR	AVE
Actual Self-Congruence The ersonality of the brand X is:						
consistent with how I see myself a mirror image of me	0.82	3.63	0.98	.75	.76	.61
Ideal Self-Congruence The personality of the brand X is:	.74	3.50	0.99			
consistent with how I would like to be a mirror image of the person I would like to be	.81	3.47	0.95	.80	.80	.67
Product Involvement	.83	3.22	0.95			
Compared to others, this product is important to me I am interested in this product	.73	3.94	0.83	.72	.73	.57
Emotional Brand Attachment	.79	4.12	0.72			
I feel captivated for this brand	.69	3.37	1.05	.81	.81	.52
I feel strongly bonded to this brand	.73	3.45	1.09			

I feel delighted for this brand	.74	3.72	0.94	
I feel passionate for this brand	.73	3.38	1.08	

In order to evaluate convergent validity three step criteria of Fornell and Larcker (1981) is followed. The criteria outline three conditions: first, composite reliability (CR) of each construct should exceed the threshold value of .70; secondly average variance extracted (AVE) should be greater than the threshold value of .50, and lastly, factor loadings of all items must be higher than .70. Results in Table 1 exhibit that all three conditions are satisfied except factor loading of EBA-1 which is .69. Discriminant validity analysis is performed by observing square root of AVE and correlations for each construct. It can be observed from Table 2 that Square root of AVE (oblique in parenthesis) for each construct has a higher value than correlations. Thus, a measurement model of the study demonstrates both convergent validity and discriminant validity.

Table 2: Descriptive Statistics, Correlations and the Square Root of the AVE

Variables	Mean	SD	1	2	3	4
1. Actual Self-Congruence	3.17	.72	(.78)			
2. Ideal Self-Congruence	3.13	.72	.40**	(.82)		
3. Product Involvement	3.17	.49	.29**	.47**	(.75)	
4. Emotional Brand Attachment	3.47	.78	.26**	.34**	.65**	(.72)

**p<0.01

4.2 Hypotheses Testing

The model yields fit indices (CFI=.968, TLI=.951, GFI=.958, RMSEA=.059, and χ2/df=1.736) higher than threshold values (Hair, Anderson, Tatham, & Black, 1998). The bivariate correlations (Table 2) between the study variables are in the hypothesized direction. The bootstrapping technique (Preacher & Hayes, 2008) was followed to investigate the indirect effects, due to several advantages over the traditional techniques i.e. causal step approach (Baron & Kenny, 1986), and product coefficient method (Sobel, 1982). Mediation analysis is performed with the help of AMOS by following bootstrapping technique (5000 bootstrap samples). Moreover, the moderation mediation hypotheses, the study used template model 14 in Process Macro (Hayes, 2018) along with bootstrapping technique (5000 samples).

Table 3: Mediation Results (Bootstrapping)

Relationship	District		Direct	Confidence Interval	
	Without Mediator	With Mediator		Lower	Upper
ASC-EBA	0.17**	0.08*	0.07*	0.032	0.122
ISC-EBA	0.29**	0.01	0.26**	0.214	0.317

ASC= actual self-congruence; ISC= ideal self-congruence; EBA= emotional brand attachment
* p < 0.05; ** p < 0.01

Table 3 exhibits that actual self-congruence (β=.17, p<0.001) and ideal self-congruence (β=0.29, p<0.001) yielded significant direct effect on emotional brand attachment in the absence of product involvement. The inclusion of product involvement in the model yielded significant direct effect of actual self-congruence (β=0.08, p<0.05) and surprisingly, turned ideal self-congruence direct effect (β=0.01, p=0.79) into insignificant. However, actual self-congruence (β=0.07, p<0.05) and ideal self congruence (β=0.26, p<0.01) both have a significant influence on emotional brand attachment through product involvement. In the light of these results hypotheses, H1 and H2 are accepted that product involvement mediates the relationship between self congruence facets (actual self-congruence and ideal self-congruence) and emotional brand attachment. Furthermore, it can be observed that after inclusion of mediator, the direct path turned to be insignificant and affirmed a complete mediation relationship with ideal self-congruence.

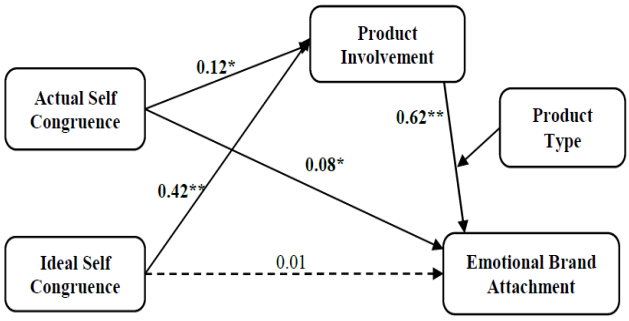

Figure 1: Results for the Hypothesized Model

* p < 0.05; ** p < 0.01

The moderation hypothesis involved a multi-group analysis in AMOS graphics. The multi-group analysis conducted Chi-square difference test of parameter estimates across hedonic and utilitarian brands. The results exhibit that the path of product involvement to emotional brand attachment yielded a significant chi-square difference test ($\chi 2$= 5.43, $p<0.05$) and supported H3. The results supported that product type moderates the relationships between product involvement and emotional brand attachment.

Table 4: Moderated Mediation Results across Product Type

Variables	Emotional Brand Attachment	SE	LLCI	ULCI
Product Involvement*Product Type+	0.31	0.15	0.006	0.629
Product Involvement*Product Type++	0.32	0.15	0.012	0.637
Conditional Indirect Effect of ASC				
Utilitarian (0)	0.15	0.04	0.088	0.246
Hedonic (1)	0.22	0.05	0.124	0.343
Conditional Indirect Effect of ISC				
Utilitarian (0)	0.25	0.05	0.166	0.369
Hedonic (1)	0.36	0.06	0.254	0.506

+ IV= Actual Self-congruence; ++ IV= Ideal Self-congruence; SE= Standard Error

The Table 4 exhibits results for moderated mediation. It can be observed that the conditional indirect effect of actual self-congruence on emotional brand attachment is positively and significant through intervening variable of product involvement. The conditional indirect effect of actual self-congruence gets stronger in hedonic brands (β=.22, CI=.124 to .343) as compared to utilitarian brands (β=.15, CI=.088 to .246). Similarly, the conditional indirect effect of ideal self-congruence gets stronger in hedonic brands (β=.36, CI=.254 to .506) as compared to utilitarian brands (β=.25, CI=.166 to .369). Thus, the results confirmed moderated mediation hypotheses H3 and H4 in the study's model.

5. Discussion

Emotional brand attachment is one of the fastest growing concerns of the organizations seeing the important potential outcomes of it. It has been established that consumers create an emotion-laden bond with the brand, which they perceive consistent with their actual or ideal self. However, the inconsistency in prior literature emphasizes the need to reconsider the product involvement role between self-congruence and emotional brand attachment. Due to the vital importance and a call for further investigation of product involvement as a processing mechanism in self-congruity effect (Fu et al., 2017), the study tested product involvement as a mediator. Along with this, the study further tested the relationship of product involvement with emotional brand attachment depending on the product type (hedonic versus utilitarian). Previously, no research to date has considered the role product involvement as a processing mechanism and product type as moderator in the relationship.

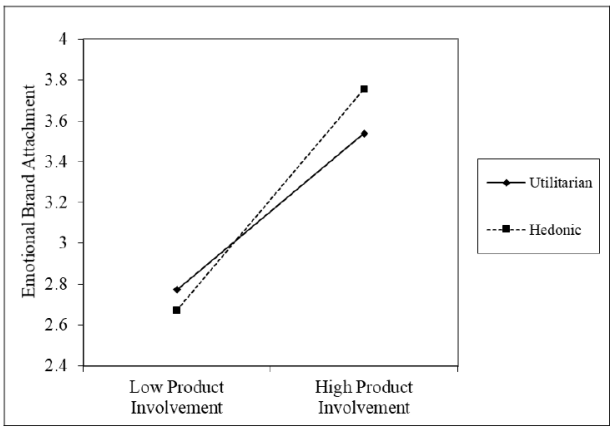

Figure 2: The Moderation Effect of Product Type on Product Involvement-Emotional Brand Attachment Relationship (Actual Self-Congruence as IV)

We found that product involvement is a vital mechanism to understand the self-congruence and emotional brand attachment relationship while depending on the product type. Contrasting the prior research, the study find that consumers tend to build emotional brand attachment with the brands that corresponds to their ideal self (Malär et al., 2011). The more a brand is closer to the consumers' ideal self the more a person will be involved with the product and the more it feels an attachment to the brand. Moreover, the product involvement is based on the perception of the relevance of self with respect consumer's self-concept (Ferreira & Coelho, 2015; Srivastava &

Sharma, 2011) and yield brand attachment. The consumers get involved in the brands that fulfill their desires and provide them pleasure, resulting in emotional brand attachment with such brands. The product involvement entails the self-concept congruence with the actual or ideal self of individual during evaluation of brands and emerges as a powerful intervening mechanism. More importantly, Ideal self-congruent brands (e.g., personal computers, clothing) result in high level of consumer involvement in an effort to make right selection that ultimately leads to stronger attachment (Michaelidou & Dibb, 2006; Zaichkowsky, 1985). Thus, the more a brand image corresponded to ideal self-concept and embodied consumers' desired image, he/she get involved with the product and yield stronger effect over the emotional brand attachment as compared to actual self-concept. Furthermore, the presence of product involvement in the relationship vides the direct effect of ideal self-congruence. This signifies the importance of product involvement, which when brands are congruence with ideal self, they must develop product involvement to develop an emotional brand attachment. In other case, brands carrying actual self-concept may or may not consider product involvement in developing emotional brand attachment of consumers.

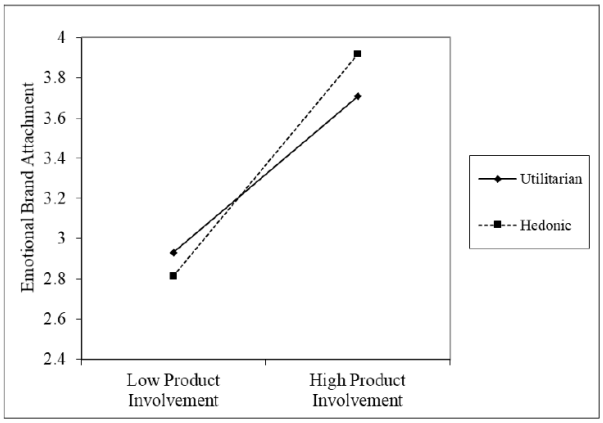

Figure 3: The Moderating Effect of Product Type on Product Involvement-Emotional Brand Attachment Relationship (Ideal Self-Congruence as IV)

Hedonic brands have inherent potential to evoke consumer emotions (Rocereto & Mosca, 2012) and the strong involvement with the brands carrying hedonism results in more intense and affective behaviors such as emotional brand attachment (Cohen & Areni, 1991). The effect of ideal self-congruence is the major driving force behind emotional brand attachment (Rocereto & Mosca, 2012). The underlying propensity of ideal self-congruence, i.e., self-enhancement brings consumer close to their aspirations. Thus they are attracted and become emotionally attached with the brands that embodied their aspirations and dreams (Boldero & Francis, 2002). Based on this, a intense association between product involvement and hedonic brands is also expected in consumers (Hirschman & Holbrook, 1982) because consumers are much involved in the selection of self-expressing and self-enhancing brands which give them pleasure and fulfill their desires (Holbrook & Hirschman, 1982; Michaelidou & Dibb, 2006; Spangenberg et al., 1997). The moderating results of product type are exhibited in Figure 2 (based on ideal self-congruence) with stronger impact than Figure 3 (based on actual self-congruence). In consistent with the theory, hedonic brands yield stronger conditional indirect effect on emotional brand attachment.

Whereas, the purchase of utilitarian brands is derived by the cognitive component of consumer attitude (Voss et al., 2003) and indulges consumer in cognitive activity while choosing and utilizing utilitarian brand (Rocereto & Mosca, 2012). This cognitive activity requires consumers to take out less involvement in thinking about the brand that leads to less emotional feelings (Oatley & Johnson-Laird, 1987). The relationship between product involvement and emotional brand attachment depends upon the product type as shown in Figure 2 and Figure 3. The increasing level of product involvement enhances more emotional brand attachment in hedonic brands as compared to utilitarian brands. Furthermore, the indirect effect of actual self-congruence and ideal self-congruence depend upon the product type. In consistent with the theory, utilitarian brands yield weaker conditional indirect effect on emotional brand attachment.

5.1 Practical Implications

The study highlights strategic ways to emotionally indulge consumers with the brands. Managers should emphasize more on the ideal self-concepts of the targeted consumer

in designing and defining the brand's personality. Utilization of such an approach will make consumers feel the brand's personality like their own leading to emotional brand attachment. Managers should adopt different marketing strategies for hedonic and utilitarian brands. The brands carrying utilitarianism image should focus on authentic branding strategy and whereas, brands with an emphasis on hedonism image should entirely focus on aspirational branding and get the customer involved to yield stronger emotional brand attachment. In designing communication messages, marketers are required to focus on self-enhancement stimuli in aspirational branding. While conducting the communication activities for aspirational branding, of the brand. The divergence among actual and ideal self of the consumer should be highlighted along with the brand projected as the solution to lessen this discrepancy. Incorporating product involvement strategies (like product differentiation, competitor orientation) into their marketing activities can help in creating emotional brand attachment.

5.2 Limitations and Future Directions

Due to time and resources constraints, large extensive data collection could not be done. Data is collected from students who may limit generalizability. Although students being energetic, informative, brand oriented and actual consumers in their daily lives make a good sample. However, results may vary if the future study involves males, employed/experienced consumers and married participants in the sample. The data are cross-sectional only; longitudinal analysis can be done to see whether the emotional brand attachment has a long-lasting or temporary impact. Dual nature brands can't be marked strictly as hedonic or utilitarian; for instance, toothpaste can prevent cavities (utilitarian benefit) and can also provide fresh breath, good taste and white teeth (hedonic benefits). Further study can be done in this third category of brands specifically. Fourthly, the first part of the study was used for the identification of brands. The separate study can be directed on the identification of brands as hedonic and utilitarian on a large scale. Moreover, actual and ideal self-congruence outcomes were considered in the study, and future studies can explore the process comprehensively.

5.3 Contributions of the Study

The study entails several contributions to the prevailing marketing literature by not only revealing the impact of ideal and actual self-congruence on emotional brand attachment but also by unleashing the mediating role of product involvement. The study contributes to the construct of emotional brand attachment by empirically investigating the differential effect of actual self-congruence and ideal self-congruence through the processing mechanism of product involvement. In addition to this, the study provided evidence for the moderating role of product types in the relationship. The study contributes to the construct by investigating the product involvement and emotional brand attachment relationship depending upon the effect of product type (hedonic brands and utilitarian brands). Moreover, the study contributes to self-congruity theory by highlighting the stronger effect of ideal self-congruence as compared to actual self-congruence. The product involvement with brand image congruity serves as a vehicle to attachment and leads to more favorable beliefs and affects towards the brand in question. In contrast to prior research, ideal self-congruence yielded stronger influence on product involvement and emotional brand attachment. The product involvement as an intervening variable in process turned out the direct influence of ideal self-congruence insignificant and emphasized the stronger processing mechanism. More importantly, the study contributes to literature by investigating the conditional indirect effect through product involvement depending upon the product type (hedonic brands vs. utilitarian brands).

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STUDY OF LEARNING VALUES AT DIFFERENT LEVEL

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ABSTRACT

The study was carried out to get the perception of student's about E-learning during COVID-19 lock down. Perceptions were sought from 370 students in which 119 male and 251 were female. The research was done because with the advancement in technology there are various software tools provided to make e-learning possible in an easy manner. The data was collected with the online questionnaire through Google form. The finding of the research shows that majority of students think that e-learning is the better to learn during COVID-19 lock down. Some major findings of the study: In comparison to the males, females are more found to have a positive views and support of E- learning, Maximum students believe that E-learning means Online learning, With the help of different software tools like Zoom, Microsoft Teams, Google Meet etc students find easy handling, this study also reflected that there is no significant difference between male and female student's attitude toward e-learning.

Keywords: *COVID-19 lockdown, E-learning, Student's Perception, Attitude toward E-learning, Perceived Ease, Features of E-learning.*

Introduction

2020 is the year of pandemic where various problems are faced by the world. COVID-19 is the major in them. Educational world is also targeted by covid-19 not by the virus but by the lock down which is due to the covid-19 spreading. Everybody is locked in their home. The best part of this lock down is advancement and involvement of students and teachers in E-learning. Earlier also E-learning was there in the system but it is a minor part of teaching learning process. This Covid-19 changes the entire place of E-learning. Now E-learning is playing a major role in teaching learning process. The use of E- learning in education and training programs has major implications for learners and the institutions. It is widely accepted during this COVID-19 lockdown. Also Advances in technology and developments in learning provides the great opportunities to create complete E-learning environment (Khan, B.

H.,2005). E-learning opens various doors in higher education. The term "**E-learning** is an on-line education **defined** as the self-paced or real-time delivery of **training** and education over the internet to an end-user device" (Lee & Lee, 2006). "**E-learning** is the delivery of a **learning**, **training** or education program by **electronic means**" (Li, Lau, & Dharmendran, 2009).Several studies have been published on Online learning. National Centre for Education statistics shows a growing demand and acceptance of online learning (Anawati, D., & Craig, A, 2006). Online learning materials are created with great efforts and also for long lasting uses and it may fulfilled the substitution of classrooms (McClellan,2016). Online teaching increases the scope and accessibility of education (Gossenheimer, Bem, Carneiro and de Castro, 2017). Online teaching has positive and negative both effects on education, therefore teaching learning activities should be more explored to differentiate what works are positive and what are negative (Arroy et al., 2015). Satisfaction, motivation and problem solving and higher order thinking skills are the positive side of Online learning (Matlaka, Nikosi, Modiba, Dolamo & Maboe, 2013). Students satisfaction and retention are also enhance the outcomes of online teaching learning practice (Sophia Janse van Rensburg, E. 2018). Online teaching learning process is highly depended on computer literacy skills with the challenge of internet connectivity. (Barnard-Ashton, Rothberg & Mclnerney, 2017). Interaction between students and teachers has been studied an important part of the online teaching learning process both for students and teachers (Hawkins, Graham, Sudweeks, & Barbour, 2013). Higher classes teachers need to be more responsive and prepared otherwise students become frustrated and they quickly give up the e- classes. (DiPietro, 2010). So the teachers can be an important part of the entire process (Kirby & Driscoll, 1997). Online learning is also required

to develop a set of best practices for evaluating how much an information literacy object follows the best practices for teaching and assessing critical thinking (Goodsett, M, 2020). fourth presence, learning presence, warrants consideration since without it areas of student experience in online and blended coursework remain unaccounted for (Blaine, A.M. 2019). Researchers need to pay particular attention to the needs and lived experiences of students in these courses (Barbour, 2008). From the student's point of view, e-learning can be used as complementary approach with current system to improving educational quality in agricultural extension and education in higher Education. Yaghoubi, J. (2009). Faculty may contribute to this confusion by claiming that their academic teaching strategies include critical thinking in order to leverage the acclaim associated with the term (Halonen, 1995).

Methods

The methodological approach of this study was an analytical method. Students from Barkatullah University and Banaras Hindu University are the target population that have been selected by using simple randomization method (n=370). Researcher made online questionnaire was developed to collect data. A pilot study was conducted with 100 students in BSSS College Bhopal. Questionnaire reliability was estimated by calculating Cronbanh's Alpha. Data collected were analyzed with the help of MS Excel. Frequencies, Percent, Means and Standard Deviation were used for descriptive analysis. And t-test were used for interferential analysis.

Results

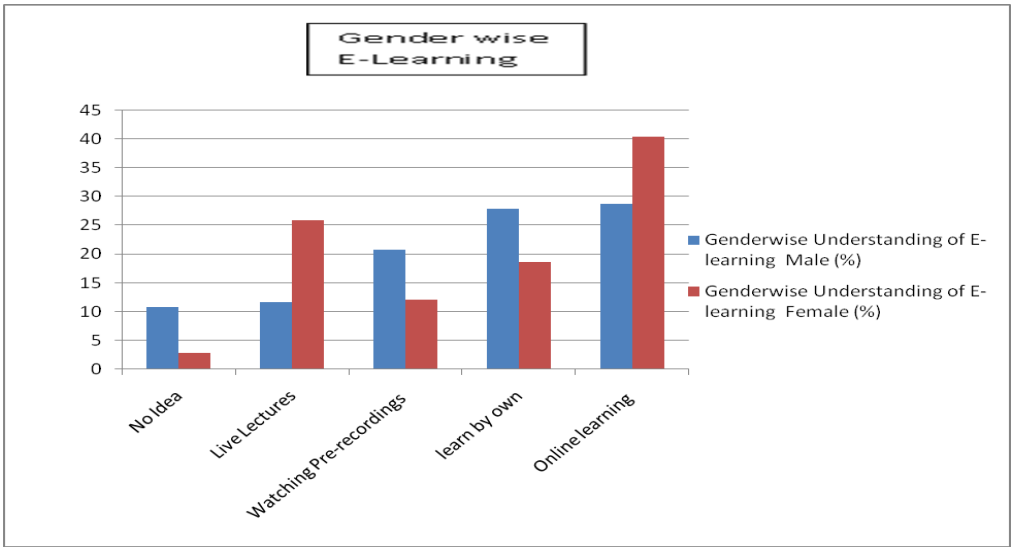
E-Learning understanding of students:

To know the understanding of E-learning according to student's point of view 370 Reponses were collected. Out of that 40.48% students believe that e-learning is a online learning which was very less as per research team assumptions. Students understanding of e-learning was also 25.91% in live lectures, 12.14 in watching pre recorded videos and 18.62% in by own learning.

Table 1.1 E-Learning understanding of students

Criterion	Overall Understanding	GENDER	
		Male (%)	Female (%)
No Idea	13.63	10.8	2.83
Live Lectures	37.62	11.71	25.91
Watching Pre-recordings	32.86	20.72	12.14
learn by own	46.54	27.92	18.62
Online learning	69.3	28.82	40.48

It can further be classified into gender wise comparison. Girl students have 7.97% idea about E- learning, where as 14.2% more girls believe that E-learning is live lectures over internet. 11.66% of girl students more than boys understand that e-learning is online learning where as 9.3% of boys more than girls understand e-learning as a learning by own.



Graph-I Gender wise E-Learning Understanding

Features of E-learning:

Features of E-learning assessed on four parameters to know the student's perception on Study through e-learning mode provides flexibility during COVID-19 Lockdown, they feel there is no effect of lock down on learning, Availability of Test and Assignment through E-learning and Availability of Interaction between teacher and student through e-mode

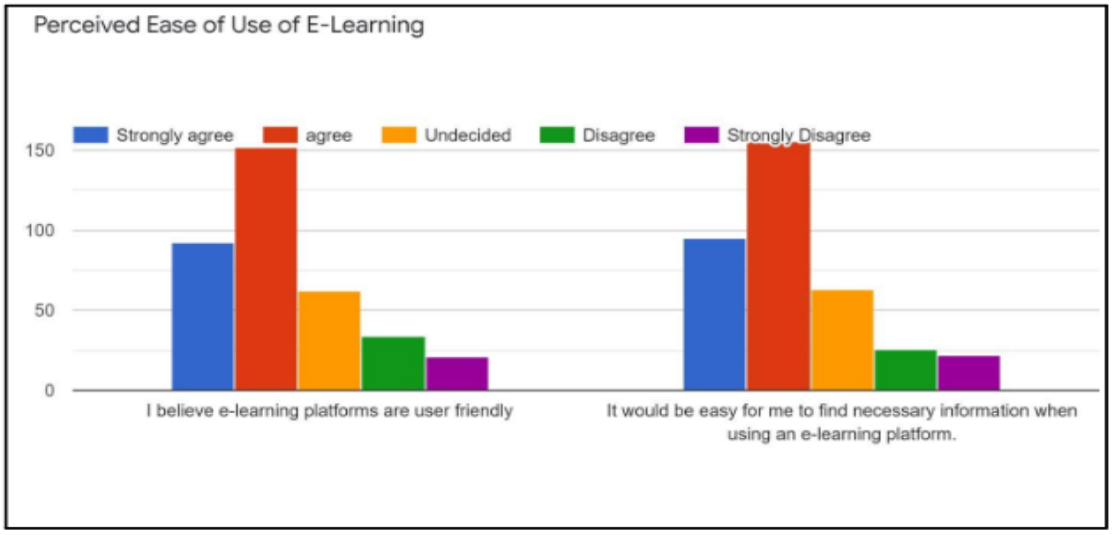
Table 1.2 Features of E-learning

SN	Parameters	Agree (%)	Undecided (%)	Disagree (%)
1	Study through e-learning mode provides flexibility during COVID-19 Lockdown	58.83	14.36	25.69
2	No effect of location	65.46	17.40	16.29
3	Availability of Test and Assignment through E- learning	66.85	16.85	14.08
4	Availability of Interaction between teacher and student through e-mode	56.35	19.33	23.75
AVERAGE		**61.87**	**16.99**	**19.95**

Interpretation of the table shows that 61.87% of students agree that e-learning are flexible, location free and availability of interaction and assessment through e-learning mode are possible during COVID-19 lock down. Rest 16.99% students are not decided and only 19.05% of students deny the parameter of features of E-learning.

Perceived Ease of Use of E-learning

Researcher main to create this to identify the student's perception and believe on e-learning are user friendly and easy up to which level. And by the below graph it cleared that most of the students believe that e-learning platform are easy and user friendly.



Graph-2, Perceived Ease of use of E-learning.

On an average 69% students believe that e-learning platforms are easy to handle and helpful to find the necessary information. Whereas on average 17.26% were undecided and 7.18% were disagree that e- learning platforms are easy to handle and helpful to find the necessary information. The distribution is shown in the below graph.

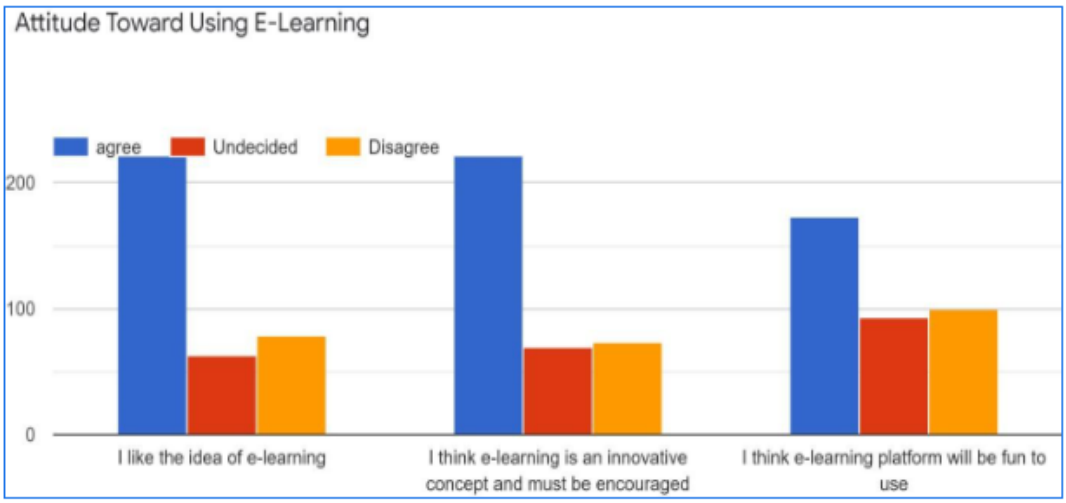
Attitude towards Using E-learning:

This section was analyzed to know the student's perception about the idea, innovative concept and fun while using e-learning.

Table 1.3 Attitude towards Using E-learning

Parameters	Agree (%)	Undecided (%)	Disagree (%)
I like the idea of e-learning	60.81	17.39	21.8
I think e-learning is an innovative concept and must be encouraged	60.97	18.92	20.00
I think e-learning platform will be fun to	46.76	25.41	27.37

Above table proved that maximum students agreed that E-learning is an innovative concept, idea and fun to handle.



Graph-3, Attitude towards Using E-learning.

Objective: To study the difference between male and female student's attitude toward e-learning.

Hypothesis: There is no significant difference between male and female student's attitude toward e- learning.

Table 1.4 Difference between male and female student's attitude toward e-learning.

Group	N	Mean (%)	Standard Deviation	DF	t-value
Male	119	74.78992	25.66127	368	0.075939
Female	251	79.50421	22.86774		

Interpretation: Above table shows that at degree of freedom 368 calculated value for't' is 0.075939 which is very less than the table value so the null hypothesis that there is no significant difference between male and female student's attitude toward e-learning is not rejected.

Discussion

This study was set out to analysis the student's perception about E-learning as they are main beneficiaries of E-learning. This study reflected that how student understand its uses and how it helps them in learning during COVID-19 lock down, The perception of male and female respondents on e- learning were also compared with each other. In this study discussion is made on the findings to the following research questions:

- What is E-learning in student's perception?
- What are features of E-learning according to students?
- What is the perceived usefulness of E-learning among students during COVID-19 lockdown?
- What is the attitude of students towards E-learning?

There was one objective also to compare the significant difference between male and female student's attitude toward e-learning.

E-learning in student's perception

Understanding of E-learning according to student's point of view 370 Reponses were

collected. Out of that 40.48% students believe that e-learning is a online learning which was very less as per research team assumptions. Students understanding of e-learning was also 25.91% in live lectures, 12.14 in watching pre recorded videos and 18.62% in by own learning.

Features of E-learning according to students

61.87% of students agree that e-learning are flexible, location free and availability of interaction and assessment through e-learning mode are possible during COVID-19 lock down. Rest 16.99% students are not decided and only 19.05% of students deny the parameter of features of E-learning.

Perceived usefulness of E-learning among students during COVID-19 lockdown

On an average 69% students believe that e-learning platforms are easy to handle and helpful to find the necessary information. Whereas on average 17.26% were undecided and 7.18% were disagree that e-learning platforms are easy to handle and helpful to find the necessary information.

Attitude of students towards E-learning

Maximum students agreed that E-learning is an innovative concept, idea and fun to handle. This also proved that there is no significant difference between male and female student's attitude toward e-learning.

Conclusion

This study was carried out to get the student's perception about E-learning during COVID-19 lock down because in this period of lock down students are only depend on online source of learning. Perceptions were sought from 370 students in which 119 male and 251 were female. This research shows that students believe that e-learning mode is very helpful for the continuing their studies during lock down. The research was done because with the advancement in technology there are various software tools provided to make e-learning possible in an easy manner. The data was collected with the online questionnaire through Google form. The finding of the research shows that majority of students think that e-learning is the better to learn during COVID-19 lock down. Some major findings of the study: In comparison to the males, females are more found to have a positive views and support of E-learning, Maximum students believe that E-learning means Online learning, With the help of different software tools like Zoom, Microsoft Teams, Google Meet etc students find easy handling, this study also reflected that there is no significant difference between male and female student's attitude toward e-learning

Recommendations

Since the COVID-19 lock down increases the scope of E-learning. This will make students to think their teaching and learning activities. Students and teachers will be able to compare the face-to-face and E-learning. This will make students to experience HYBRID LEARNING (Combination of Traditional And E-Learning) which is their preferable choice of learning as reflected in the study. Researchers also believe that there are some drawbacks of Online learning like Internet connectivity, fears of teachers, Big class strength, Costly etc. In this regards researcher recommended to the educational community that prefer hybrid learning.

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A STUDY OF TEACHING AND LEARNING PROCESS AT UNIVERSITY LEVEL

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ABSTRACT

This paper focus on post graduate university level teaching pose different array of opportunities and challenges. Teaching and learning process is often associated with the conventional methods which are appreciated and followed by the teachers. However, limited empirical aspect is included in this process. Theoretical and conceptual teaching unfolds the basic concepts related to the subject. Practical spectrums which are included in the teaching – learning process, indicate the aspects of understanding the need of learning designer's perspectives and the relevance for those involved in the process of professional coerces in higher education. It is also a way of gaining knowledge by means of direct and indirect observation or experience for the teachers. This teaching pedagogy was applied to gather information on the implementation of teaching practicum in order to improve the quality of teaching learning of students. This is empirical knowledge on the teaching – learning process and the roles designer (course teacher), students and experts on empirical learning projects, and the findings have relevance for those involved in decision-making, planning and development of such projects in higher education.

Keywords: learning designer, teaching – learning process, Practicum, empirical methods and teaching pedagogy

Introduction

One of the foremost necessities of 21st century in higher education is developing mechanisms for the teachers to implement and use practical spectrums motivating students to use higher-order thinking skills. This can be used when students use multifaceted concepts related to the different courses.

Professional courses insist students to think and practical implementation of their learning. They would have to understand the facts, infer them, and connect them to other concepts in the practical settings. Higher-order thinking skills (HOTS) go beyond basic observation of facts and memorization. The teacher is expecting that the students to be evaluative, creative and innovative.This concept are initiated by American education. This method emphasizes on critical thinking of students. This is an advance stage of learning those attained by rote memorization. HOTS include synthesizing, analyzing, reasoning, comprehending, application, and evaluation. Developing higher order thinking skills insist students to the process of connecting one concept to another concept. The teachers can develop teaching strategies to enhance higher-order thinking skills through designing certain practicums. By doing this, the teachers can connect the students to the concepts already known to them with what they are learning in the class and able to connect it with the professional environment. Practicum Teaches students to make inference with the "real-world" situations. This method of teaching and learning is with the reference of various taxonomies of learning, created by Benjamin Bloom in his book, "Taxonomy of Educational Objectives: The Classification of Educational Goals." Higher-order thinking skills are reflected by the top three levels in Bloom's Taxonomy: analysis, synthesis, and evaluation.

Bloom's Taxonomy and HOTS

Bloom's taxonomy is taught in a majority of faculty development programme. Bloom's aim was to promote higher forms of thinking in education, than just teaching students to remember the facts related to the topic/ subject (rote learning).

Different levels of taxonomy's were introduced by this method. The revised levels of this taxonomy are, Remembering, Understanding, Applying, Analyzing, Revising and Creating. LOTS, lower order thinking skills is dealing with memorization, where-as, HOTS initiates understanding and applying that knowledge. In HOTS, it is expected that the students can apply the knowledge and skills they have learned in the new contexts. It serves as the feature shifting the students from dependent

learning to independent learning. The teachers must design the practicum's committing to an honest reflection of existing teaching practices. This can begin this journey with a careful analysis of current instructional strategies, irrespective of grade level of the course.

Practicum Activities for developing 'Higher Order Thinking' in students

Teaching practicum activities are part of classes to implement the curriculum. Commonly, any course includes regular university syllabus, course lectures, textbook readings, homework assignments, and concurrent assessment at institute and university level.

Recently, the higher education systems understood the importance of developing the workforce which can implement theoretical concepts in the practical world. This requires extensive collaboration between classroom teachings with the outer world. These connect inevitably poses serious challenges for established institutional structures, conventional methods of teaching and learning and the roles of those involved in this process of course development and delivery. In this study, the attempt was made to understand the methods of transforming academic work into high-quality functions and activities leads to build the effective human resource for the industry. This skilled human resource can shape the organizations and help them to develop their force.

To get hands on experience and enrichment of theoretical knowledge gained during the classes, the practicum activities can be conducted by the course teacher. However, these activities must be fairly concrete, well planned and executed in extremely professional manner. These practicum activities may vary as per the varied nature of the courses.

A practicum could be as short as a few hours in a semester, or it can be spread to 15-20 hours a week. Practicum can involve one/ multiple course teachers depend on the nature / scope of the practicum activity conducted for the students. In most practicum experiences, course teacher/ teachers can follow combination of observation and classroom assistance. Use of practicum can be very satisfying for the educators to imbibe the subject related knowledge to the students.

At times, course teachers can simply observe the class, and record their observations. They can interact with the students later and provide feedback to the students. The course teachers can involve the outside expertise for development/ assessment of the practicum. They can discuss about the objectives of the practicum and the best way to achieve the same.

The course teachers may teach for few hours in the classroom, they can ask students to develop contents for the practicum, the teacher can review the same and then students can use it.

Nature and background for developing the practicum

The class teacher can consider following points while using practicum for teaching the course.

- Use innovative and immersive ways e.g. use of computer labs, internet and the local recourses which add value to teaching and learning process.
- Be firm but ready to implement the changes.
- Emphasize on close attention and feedback to the students enhances the quality of practicum.
- The course teacher can be a mentor / guide for all the students. This motivates and encourages the students for completing the practicum activities planned by the teacher.
- The course teacher can distribute the work in equal duration. Heavy / excessive work can be avoided for quality output by the students.
- Every practicum must be well planned however; the course teacher may face some glitches during the execution of the practicum. The course teacher can pursue the practicum and refine the idea and activity for next lecture/ batch.

Preparing for practicum to develop HOTS

A. Stage I Planning:

- **Study the subject matter**: A course teacher can develop a study material for the subject allotted to him/her. The material cannot be at very complex level. It must be suitable to the understanding level of the students.

- **Course teacher can get clear understanding on the "point**": practicum and the objectives to be achieved through the same. Well- thought/ defined characteristics increase the value of the practicum.
- **Create a clear synchronization between practicum designed by you and the students**: It is the prime duty of the course teacher to develop clear understanding between the students. There is a need for explaining the theoretical concepts, to develop the need of systematizing, refining or expanding, terms and scientific explanation required for better understanding and implementation of the practicum.

B. Getting along with Students

- **Be organized:** It is teacher's responsibility to involve the students by motivating them for attending the lectures, distributing handouts, handing in assignments, setting up a system and code of conduct of the class and practicum activities.
- **Be firm, but consistent and fair:** Remember a fundamental point about teaching that the students are in no position to judge in advance about the practicum activities conducted by you. They have to learn it before they know whether it's worth learning. Course teacher have to keep students on task and learning so they can eventually find out whether what you're teaching is worth learning.
- **Sample Case study:** The author had developed the sample case for one of the subject. This will help the subject teachers. This detailed information is attached for the reference of other teachers:

Practicum used to teach the course -306 E (Lab in Training)

Introduction to the course

This course examines the purpose and responsibilities of the training and development function within organizations. It provides students with perspectives on the significance of training and development for improved productivity, efficiency and overall organizational performance. Students will learn and practice steps involved in designing, delivering and evaluating training. This subject was taught to the MBA students who are pursuing their specialisation in Human Resource Management (MBA HR specialisation students).

This course is internal subject which was assessed at institutional level. University examination will not be there for this course. This course is the small extension of the full credit subject, Human Recourse Management which was learned by the students in second semester. The total assessment has been done for 50 (fifty) Marks.

Programme Educational Objectives (PEO's) of the MBA Program are as per SPPU

1. To equip the students with requisite knowledge, skills &right attitude necessary to provide effective leadership in a global environment
2. To develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy &Society, aligned with the national priorities.
3. To develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem.
4. To harness entrepreneurial approach and skill sets.

Objective of the course

1. To make students understand training need analysis.
2. To help students to design Training Programmes and decide the appropriate training methods.
3. The students can understand the proper methods to execute the training programme.
4. The students can able to figure out to use the feedback for further improvement.

Course outcomes: At the end of the course students will be able to

1. Develop analytical and critical thinking required to access Training Need Assessment of the organization.
2. Possess the management skills required to develop training modules based on the

TNA in an organization.
3. Apply the knowledge to decide the training methods suitable to achieve objectives with reference to TNA.
4. Apply the knowledge to decide the training methods suitable to achieve objectives with reference to TNA.
5. Understand the procedure of deciding the process of training need analysis and methods to deliver training programme for different cadres in an organization.
6. Able to analyze the organizational objectives and link the training schedule/ calendar of the organization with the same.

Teaching Pedagogy used by the course teacher

The practicum was conducted in different manufacturing organizations in Pune. This qualitative study employed document analyses, practical implementation of the training program by the students and quality discussion on the students experience and feedback shared by the participants and the industry experts. The faculty members organized analysis, findings, and discussion around the implementation of teaching practicum.

1. A detailed teaching plan was prepared by the course teacher. The same is shared to the students.
2. Teacher discussed the theoretical aspects of course to the students in the classroom. (used PPT , Case studies, videos)
3. Simultaneously, All the Students need to decide the training topic and discuss the same with the course teacher and fellow students of the class.
4. All the training topics are related to the behavioral training which can be applicable to all types of industry personnel.
5. The students prepared training proposal for different organizations. The same is discussed with the other students. Everyone discussed on the topic and gave suggestions.
6. The students prepaid training modules. The objectives where set, based on that the training contents were developed. Students prepared PPT, added the link of the videos to be shown during the training, games to be conducted, time frame of the training programme.
7. The course teacher discussed the same with individual students and suggested changes (if any).
8. The course teacher identified the organizations and forwarded the training topics prepared by the students.
9. The organizations selected the topics and time and venue is decided with the mutual concurrence.
10. Students deliver the training programme at different organizations.
11. Corporate authorities shared their feedback with the students about their performance.
12. Course faculty discussed with the students about their training experience and shares the feedback on the performance.

Outcome of the Practicum

1. Improved Critical Thinking Skills in Students:

Critical thinking is indispensable in real life, especially in the field of education, because critical thinking in education is the process of thinking to make decisions from various foundations such as evidence, methods, criteria, context, and conceptualization and relevant sources of information. In this practicum, the students understood the methods followed by the organizations to identify the training need analysis (TNA). To develop the training further their conceptual skills are developed

2. Enhanced creativity and innovation abilities:

The ability to create and innovate is amongst the most important skills required of employees. In the competitive environment organizations and employees needs to adapt the rapidly changing environment in order to keep up with the pace of the dynamic situations. This Particular exercise helped students to understand the concept of training and development. Process of developing training module suitable for the different organizations and different designations.

3. Learning becomes more interesting:

Students were encouraged to engage with higher-order thinking skills, this requires far more of their attention and utilizes more of their conceptual capacity. As a result, learners

are more engaged in professional development, and online learning courses which implement these activity types are often far more applicable in real-life scenarios.

4. Build transferable skills for real-life scenarios:

When learners are engaged with higher-order thinking skills through practicum's they can apply this knowledge after the training is over. Learning tasks which encourage divergent thinking develop skills which can be applied to a broad range of situations, and are not bound by specific topics or the requirements of job roles.

5. More opportunities for collaborative learning :

These kinds of activity based thinking evolve creativity and collaborative learning. This activity creates conducive and collaborative learning. While finding ways for learners to work together can be challenging, tools such as discussion boards and information sharing do allow for participants to share their ideas during the learning process.

6. Build confidence of the students:

This practical assignment creates and develops the confidence among the students. They gone through the process of developing training modules on different topics and conducted this training module to the different managers. They received corporate feedback and inputs for the further development. It ensures the overall development and confidence building amongst the students.

Conclusion

Teaching and learning with practicum is to synthesize, evaluate, and process information in new ways. This is a key for preparing students for the world outside the institute. The teachers can learn to model their thinking processes and "make the invisible visible" to students. With the tightening of the higher-order thinking thread, the literacy weave will be complete. Conventionally low-order thinking goals enforced by drill and repetition activities. However, developing higher thinking skills can develop teaches the students to become the problem solvers. primarily education has favored the acquisition of knowledge, especially among elementary school-age children, over the application of knowledge and critical thinking. These advocate that without a basis in fundamental concepts, students cannot learn the skills they will need to survive in the work world. On the other hand reform-minded educators, meanwhile, see the acquisition of problem-solving skills—higher-order thinking—to be essential to this very outcome. Progressive curricula, often creates disagreement from traditional educational mindset. However, modern curricula emphasize HOTS, over strict rote of memorization as the means to help students achieve their highest potential.

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TEACHING, LEARNING AND CURRICULUM OF SECODARY SCHOOLS

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ABSTRACT

Curriculum, as a cultural and system-specific artifact, outlines mathematics teaching and learning activities in school education. Studies of curriculum and its changes are thus important to reveal the expectations, processes, and outcomes of students' school learning experiences that are situated in different cultural and system contexts. In this article, we aim to propose a framework that can help readers to develop a better understanding of curriculum practices and changes in China and/or the United States that have been reported and discussed in articles published in this themed issue. Going beyond the selected education systems, further studies of curriculum practices and changes are much needed in helping ensure the success of educational reforms in different cultural and system contexts

Key words: *Teaching, Learning Curriculum, Mathematics textbook, National studies, secondary School*

1 Introduction

School education is organized to provide students structured learning experiences. Curriculum, as an outline of teaching and learning requirements in content and performance, is put in place to structure students' learning experiences in schools (Schmidt, McKnight, Valverde, Houang, & Wiley, 1997). Efforts to pursue excellence in mathematics education have thus led to the continued changes in mathematics curriculum, which has been the focus of educational reforms in many education systems including the United States over the past several decades (e.g., National Council of Teachers of Mathematics [NCTM], 1980, 1989, 2000; Senk & Thompson, 2003) and China (e.g., Liu & Li, 2009). Ironically, curriculum has not been a focus in mathematics education research. For example, the first *Handbook on Mathematics Teaching and Learning* (Grouws, 1992) published by NCTM did not have a single chapter on mathematics curriculum. As the curriculum issue has attracted more and more attention with the release of NCTM Standards (1989, 2000) and US National Science Foundation's efforts in promoting and evaluating new curriculum material development, the *Second Handbook on Mathematics Teaching and Learning* (Lester, 2007) now contains one chapter specifically related to curriculum. Apparently, research on mathematics curriculum is long over due and is not consistent with the status of curriculum that has been constantly taken as a focus of major education reforms. Further development on research related to curriculum policy and practices is inevitably needed, as issues in mathematics curriculum can and should be examined carefully and systematically both within and across education systems. This theme issue is such a small step toward the development of this much-needed area of educational research.

This issue, as a thematic collection of studies, consists of seven articles that individually present and discuss curriculum practices within or across China and the United States, followed by one commentary article. The selected focus on the case of China and the United States is not intended to exclude other education systems. Rather, like many other good collections of articles, it is not possible to examine and discuss curriculum practices and changes all over the world in a single issue. Given the fact that curriculum is a cultural- and system-specific artifact (e.g., Griffiths & Howson, 1974), we tended to focus on the cases of China and the United States to illustrate possible similarities and differences in curriculum practices and changes between the East and West that can hopefully inspire more and systematic research efforts. Thus, the themed issue contains five articles (or called national studies) that specifically focused on curriculum practices and changes in either China or the United States, as well as two cross-national studies that compared curriculum practices and associated factors related to China and the United States.

The selected focus on China and the United States is also due to the fact that both China and the United States have undertaken large-scale reforms in school mathematics over the past decade. Although the motivation and context behind the reforms in these two systems were not the same, curriculum changes have been again taken as a focal aspect (e.g., Liu & Li, 2009; Senk & Thompson, 2003). Relevant curriculum practices and approaches devoted to the improvement of mathematics teaching and learning cover a range of topics, including the development and analysis of intended curriculum and textbooks, curriculum transformation and connections from the intended to the achieved, teachers' use of curriculum materials for developing classroom instruction, and teachers' learning from curriculum materials. As curricular practices and approaches are cultural value-loaded activities (e.g., Li, 2007), focusing on one specific practice or approach may highlight one system over another. Thus, this issue is designed to be open to examine different curricular practices and approaches that are valued and used in ways to improve mathematics teaching and learning in China and the United States.

Initiating and editing of this themed issue builds upon our on-going research interests in mathematics curriculum studies (e.g., Kulm, 1999; Li, 2000, 2007). As editors of this themed issue, we also bring our own extensive experiences in mathematics education research and practices in China and the United States. At the same time, we often find ourselves in a position of continuously learning something new from our contributors and collaborators especially in this topic area of mathematics curriculum. Such learning led us to believe that articles published in this themed issue are valuable sources of information for international readers to learn and reflect upon some culturally-valued practices and changes in mathematics curriculum.

2. Understanding curriculum practices and changes in an international context: a framework

Since the Third International Mathematics and Science Studies (TIMSS), school curriculum and its impact on teaching and learning have received increasingly more research attention in the international context (e.g., Schmidt, McKnight, Valverde, Houang, & Wiley, 1997; Senk & Thompson, 2003). In fact, TIMSS was the first large-scale international study that explicitly examined curriculum materials and specified the process of curriculum transformation as a guideline to conceptualize the relationship between curriculum analysis and students' learning (e.g., Schmidt et al., 1997). While students' performance was taken as the achieved curriculum, what is provided in curriculum guidelines was treated as the intended curriculum. The results obtained from TIMSS curriculum studies illustrated the unique value of examining curriculum practices in an international context. At the same time, however, curriculum policy and approaches practiced in one education system can not be simply adopted in a different system and cultural context (Li, 2007). Even within the same region such as East Asia, Li and Leung (2009) pointed out that curriculum practices and changes bear dramatic differences across six high-achieving education systems in that region (i.e., Hong Kong, Japan, Mainland China, Singapore, South Korea, and Taiwan). The influence of social-cultural and political factors on curriculum practices and changes suggest that a better understanding of curriculum issues needs to go beyond the academic aspect of curriculum itself. Here, we thus propose a framework that aims to facilitate readers to develop a better understanding of curriculum practices and changes in an international context.

The importance of knowing and understanding social-cultural and system context suggests that curriculum practices and changes need to be examined and understood at both macro and micro levels. In particular,

A. At a macro level, we refer to the social-cultural and historical aspect of curriculum practices and changes that needs to be emphasized. If we call such social-cultural and historical aspect as the context of curriculum practices and changes in discussion, it is often the case that a specific national or cross-national study of mathematics curriculum may lack a needed description and elaboration of such a

context. To develop a better understanding and further discussions of curriculum practices and changes as reported in this themed issue, it is important that readers attend to contextual information about China and the United States even if not every individual studies reported in this issue provide such information as needed. Thus, we provided some general background information as Section 3 about culture, history, and philosophy related to the case of China and the United States.

B. At a micro level, we refer to the academic aspect of curriculum practices and changes that are often the focus of every individual studies. As readers can surely learn a great deal from reading each individual studies reported in this issue, we will share with readers how we structure these individual studies in this themed issue in Section 4. A summary of each individual article will then be included to highlight curriculum practices and changes at the micro level.

3. Knowing the cultural and system context when learning about curriculum practices and changes from this themed issue

The review and analysis of comparative studies on school mathematics curricula and teaching requires multiple perspectives. The comparison of mathematics education in Western and Eastern countries, especially with a focus on the US and China requires specific and general considerations of culture, history, and philosophy. It seems important to use these lenses in order to understand and interpret the research work that is reported in this issue. In this section, we attempt to identify some general cultural, historical, and philosophical factors that have led both the US and China to their current positions. While being aware that these perspectives are a brief summary of complex ideas, we take the stance of the "average" educated person in attempting to make sense of the challenges and opportunities in improving mathematics education. Clearly, the East and the West in general, and the US and China specifically are becoming more interdependent economically and politically. Education can be the bridge and catalyst in addressing the challenges we face. Given the importance of technological and scientific advances as possible solutions, mathematics education is the cornerstone for building a future mutual advancement.

3.1 The importance of culture

Recently, attention to the cultural aspects of US and China comparative research has received considerable attention. While there is still much to be done in studying cultural factors, there is at least some understanding of some key cultural variables on the part of mathematics educators both in the East and West. This growing awareness of cultures has been advanced by more frequent visits from both sides, as well as conferences, and the increasing number of graduate students from China who study, then stay on to do research and teach in Western universities. These activities have produced scholarly publications, as well as professional and personal interactions, all of which contribute to greater shared understanding of how mathematics education works in the East and West. The depth, breadth, and direction of the flow of this information, as well as its eventual influence, is complex and probably unknown at this time. For example, the early work of Stevenson and Stigler (1992), and the publication of *The Teaching Gap* (Stigler & Hiebert, 1999) were read widely by US mathematics educators. Some projects that applied ideas such as "lesson study" have been tried, but the overall influence on classroom mathematics instruction appears to be minimal. On the other hand, visits on both sides and Chinese mathematics educators' study of US research on problem solving and teaching for understanding seems to have had some influence on the development of the China's new mathematics standards (Liu & Li, 2009). These standards reflect many goals and objectives in common with US mathematics education standards (NCTM, 2000).

Both of these examples illustrate that culture is a critical intervening variable, with the potential to enhance or pose significant barriers to attempts to "import" change. Attempts to build US teachers' mathematical knowledge and improve practice through activities that depend on close cooperation, intensive study and critique of colleagues, and long-term improvement of common lessons fly in the face of a US educational organization and culture

that is administrator-controlled, focused on individual classroom instruction, and driven by textbooks. On the other hand, building the ideas of inquiry, problem-solving, and student-centered instruction into the development of China's new standards was more successful. These changes were built onto a strong foundation of learning basic skills, using a centuries-old philosophy of Confucianism to provide support for more modern ideas. Finally, the tradition of a national curriculum provided the structure and culture for having these ideas translated into classroom practice.

3.2 The importance of history

The histories of the East and West are vastly different. In particular, the history of the China and the United States, measured in centuries versus decades, are in sharp contrast with each other. The perspective of history is seldom considered seriously in the United States, whether the discussion is about politics, economics, or education. In US mathematics education, there has been a pendulum-like swing between emphases on "new math" of the 1960s, pure math or applications, skills or understanding, cooperative or whole class instruction, and many other forces. In China, at least in somewhat recent history, there have also been significant swings of a different type from early Western influence in the early part of the 20th century, the Soviet influence of the latter 20th century, the Cultural Revolution and the recovery from it in the 1960s to the 1980s, and the present development of a modern educational system. There is much in common in the goals for mathematics education reform in the US and China during past 30 years which have been especially important for both countries in forming the shape and directions of current work and reform.

In the US, the pendulum-like swings had devastating effects mainly because the reforms often called for drastically different approaches than was either currently being done, or the way most teachers had learned mathematics themselves. Further, the lack of sufficient time and support, and the decentralized system meant that only a small fraction of schools and teachers actually implanted the reforms in any meaningful way. Those schools and district that were able to make changes were often the more well-funded ones, leading to further disparities and gaps in achievement. The current "standards-based" mathematics education reform, which began in the 1990s may be an exception to the time spent in attempts to implement the changes – it has been nearly 20 years in progress. The relatively large amounts of funding and the requirement for annual testing have been a somewhat effective, albeit heavy-handed approach to forcing states and districts to make reforms. It would be hard to make a case that the recent reform has been a success overall.

3.3 The importance of philosophy

The philosophical stances and outlooks between the East and West are clearly different in many ways, even to the novice observer. In teaching and learning, many ideas have contrasting views, including the importance of innate ability, hard work, individualism, and motivation. Although research has provided insights into some of these factors, much is yet to be discovered about how they impact the differences in mathematics achievement, or how good ideas or practices can be transferred from one system to another.

In the United States, a lack of consensus on the philosophical foundations about teaching and learning mathematics is a fundamental issue that makes reform so difficult to achieve in the US. The "Math Wars" episode of the last decade was the most apparent indicator of this lack of consensus (see, for example Latterell, 2004). Educators have tried to build empirical evidence for the implementation of a set of ideas that include "constructivist" learning theory, socio-cultural learning contexts, and instructional technology. These ideas have been embedded through the reform activities into mathematics curriculum standards, teaching education and development, and textbooks and tests. Many of these ideas are anathema to mathematicians who have a content-based philosophy, believing that the content and skills rather than methods and students should determine the mathematics curriculum and instruction. Classroom teachers, who are caught somewhere between these approaches, tend to teach as they were taught, or how they are told to teach by administrators who are concerned about high-stakes test results. In previous

reforms as well as the continuing current one, this lack of a fundamental philosophical foundation makes real implementation of change nearly impossible.

In the East generally and China in particular, the centuries of tradition and values about education form a foundation for reforms. Even the devastating impact of the Cultural Revolution has been overcome to a great extent by returning to earlier philosophies such as those of Confucius and the early academics. The current reform values self-discipline, hard work, and the importance of learning and understanding the fundamentals mathematics through applied practice of skills (Wong, 1998). This fundamental philosophy is a foundation for newer ideas such as the use of technology, individual curiosity and motivation, and inquiry-based teaching. Using the power of a very top-down and monolithic system, the development and implementation of new mathematics standards, textbooks, and instructional strategies are implemented by schools and teachers. Even though the standards and some of the instructional approaches may be new, they do not replace the traditional basic values that are in place.

4. What might we learn from this themed issue on curriculum research?

The seven articles included in this themed issue cover a range of topics using a variety of perspectives. Apart from these variations, these seven articles also present either national studies (in China or the United States) or cross-national studies (related to China and the United States) of curriculum practices and changes. Our understanding of the nature of these studies, developed after reading each article, prompts us to structure the seven articles included in this themed issue into two clusters: (1) national studies that focused on curriculum practices and changes either in China or the United States, (2) cross-national studies that took a cross-national comparative approach in examining and discussing curriculum issues related to China and the United States. This organization of articles also follows well the framework proposed in Section 2 that can hopefully help readers to be aware of different social-cultural contexts when reading these articles in different clusters.

4.1 Cluster 1 – national studies

Five articles published in this themed issue focused on curriculum issues in either China or the United States. While the articles by Li, Chen and Kulm (2009) and Li, Zhang and Ma (2009) focused on curriculum practices in China, the other three articles (Hirsch & Reys, 2009: Lloyd, 2009; Nie, Cai, & Moyer, 2009) examined and discussed curriculum practices and changes in the United States. Brief summaries about these five articles are provided below.

With a focus on Chinese teachers' practices in lesson planning, Li, Chen and Kulm (2009) examined mathematics teachers' daily lesson plans and associated practices and thinking for teaching fraction division. As part of a larger research project, both teachers' lesson plans and interviews with participating teachers were analyzed and reported in this study. The results present several aspects in Chinese teachers' practices that are different from their American counterparts. In particular, lesson planning was an important process for Chinese teachers to transform textbook content into a script unique to different teachers and their students. Chinese teachers thought carefully on several aspects of lesson plans, including content, process, and their students' learning. By following textbooks carefully, Chinese teachers' lesson plans were similar in terms of some broad features even for teachers from different schools. At the same time, however, teachers' lesson plans differed in details and specific approaches used. For Chinese teachers, lesson planning is not only a process of preparing for teaching lessons but also a professional development process of learning from textbooks and colleagues.

Li, Zhang and Ma's article (2009) describes and discusses approaches and practices in developing mathematics textbooks in China. Given the fact that textbooks play a very important role in guiding mathematics teaching and learning activity in China, developing high-quality textbooks has been emphasized in China. Apart from some unique features in Chinese textbook development practices in the history, textbook development practices over the years have also accumulated some valuable experiences and guidelines. This article highlights some common practices and

approaches developed and used in selecting, presenting and organizing content in mathematics textbooks. With recent curriculum reform taking place in China, the authors also present and discuss the features of some newly developed high school mathematics textbooks.

With a conception of curriculum similar to that used in the TIMSS study (Schmidt et al., 1997), Hirsch and Reys (2009) outline and discuss different forms of curriculum that have been used to stimulate school improvement in the United States. The specification of different forms of curriculum allows the authors to discuss various progresses that have been taking place from time to time in curriculum development in the system. Sample developments include the assessment of students' yearly learning progress to hold school systems accountable in the form of the assessed curriculum. Moreover, because the United States has a decentralized education system, there is a great variation in the curriculum guidelines or frameworks (as the intended curriculum) across various states. A recent movement has been taking place in developing a set of common core state mathematics standards for grades K-12. As highlighted by the authors, such new developments specify changes in different forms of mathematics curriculum in its policy and practices in the United States.

In her article, Lloyd (2009) reports a study of five US pre-service teachers' interactions with school mathematics curriculum materials and what pre-service teachers might learn about the innovative curriculum materials. The study reveals that pre-service teachers' interactions with the recently developed curriculum materials let them become well aware of special features of the innovative curriculum materials, as they are different from traditional curriculum materials that pre-service teachers were accustomed. However, these pre-service teachers held different views about the use of such innovative curriculum materials for mathematics instruction, with some ready to accept but others felt discomfort and frustration at times. Nevertheless, use of curriculum materials had been viewed by each participating teacher as important for improving their understanding of mathematics.

By focusing on the ideas of variable, Nie, Cai and Moyer (2009) compare different textbooks' approaches in organizing and presenting the topic. In particular, the authors selected and compared one NSF-funded Standards-based middle school curriculum material with a more traditionally-based curriculum material (Glencoe Mathematics). The study reveals that these two selected curriculum materials differ in many ways in presenting and organizing the content topic for teaching and learning but present a consistent approach in developing the concept within each of the curricula. While CMP introduces the concept of variable more from a function perspective, Glencoe Mathematics presents the concept of variable as placeholders or unknowns and uses them primarily in equations. Although the approaches used by either curriculum may have certain advantages and disadvantages, the authors argued that none of these two curricula show clearly the various uses of variables that are important for students to learn.

4.2 Cluster 2 – cross-national studies

There are two articles that take a cross-national comparative approach in analyzing and discussing curriculum issues related to China and the United States. While Fuson and Li (2009) discuss the complexity in understanding students' learning with the textbooks from a cross-cultural perspective, Li, Chen and An (2009) compare selected textbooks from China, Japan and the US in terms of their presentation of fraction division.

In their article, Fuson and Li (2009) present an in-depth analysis of selected textbooks on the topics of single-digit and multi-digit addition and subtraction. In particular, cross-cultural issues in linguistic, visual-quantitative, and written-numeric supports for mathematical thinking are highlighted in analyzing why Asian textbooks, especially a representative Chinese textbook series as analyzed in this study, may benefit students' learning of these topics. As the authors pointed out, the analysis reveals not only possible differences in textbooks as caused by linguistic issues but also what visual-quantitative supports may be needed to compensate for possible linguistic disadvantages. The analysis illustrates the complexities in understanding textbooks'

impact on students' mathematics learning cross-culturally.

Li, Chen and An (2009) analyze selected Chinese, Japanese and US mathematics textbooks to examine their ways of conceptualizing and organizing content for the teaching and learning of fraction division. Building upon previous textbook studies, the authors conducted a systematic fine-grained analysis of textbooks to reveal cross-system similarities and differences in opportunities and challenges embedded in textbooks for teaching and learning. The results provide a glimpse of the metaphors of mathematics teaching and learning that have been employed in Chinese, Japanese, and US textbooks. In particular, the results from the textbook analyses demonstrate that Chinese and Japanese textbooks share many similarities in conceptualizing and presenting the topic but differ from US textbooks. While procedures and operations of fraction division are targeted in all these textbooks, the conceptual underpinnings of fraction division are given different attention and developed in different ways.

4.3 Commentary article

In his commentary article, Silver (2009) discusses the value as well as difficulties inherent in cross-national comparisons of mathematics curriculum and other aspects of educational practices and outcomes. Through the discussion, it becomes apparent that educational researchers need to be clear about what is compared, why compare, how to compare, and how the comparison results might be used. As an important case illustrated in this article, the analysis of tasks' cognitive demands shows the feasibility and value of learning about classroom instruction from cross-national comparative studies. Further relating to the articles published in this journal issue, the author highlights and discusses one illustrative example of what readers might learn from cross-national comparative analyses and how such analyses could be used to sensibly inform policy discussions related to changes in mathematics curriculum, teaching, or teacher preparation.

5. Significance and limitations

By focusing on China and the United States as two contrasting system and social-cultural contexts, this issue aims to examine curriculum practices and approaches valued and used both within and across these two education systems. As we have described earlier, this themed issue has a limitation in selecting the two education systems from the East and West. However, the two education systems were not selected by chance, but because they certainly represent a variety of approaches that can be found in the East and West. We believe that, even within this limitation, this themed issue examines and illustrates different curriculum practices and approaches which are developed and utilized in efforts to pursue excellence in school mathematics education in an international context, albeit only with selected two education systems.

Through examining and discussing curriculum practices and changes either within or across China and the United States, this themed issue provides educators and policy makers an opportunity to reflect beyond what can possibly be understood within a specific system context. In particular, this journal issue is not only to report specific research findings within either system, but also to provide a platform for developing a better understanding of relevant curriculum practices and its impact on mathematics teaching and learning in different social-cultural contexts. We hope that this themed issue can stimulate further study of curriculum practices and changes in many more education systems, which actually are much needed in helping ensure the success of educational reforms in different cultural and system contexts.

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