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About the Journal

The *Journal of Indian Education* is a reviewed periodical published in May, August, November and February by the National Council of Educational Research and Training, New Delhi.

The NCERT encourages original and critical thinking in education. The JIE provides a forum for teachers, teacher educators, educational administrators and researchers through presentation of novel ideas, critical appraisals of contemporary educational problems and views and experiences on improved educational practices. Its aims include thought-provoking articles, challenging discussions, analysis, challenges of educational issues, book reviews and other related features.

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CONTENTS

Editor's Note

Government of India is in the process of finalisation of a National Education Policy. The draft of the policy has been shared through different mediums for the comments, feedback and suggestions from various stakeholders. The draft gives the emphasis to quality education, innovation and research, which aims to make India as a knowledge superpower. The research paper and articles in the present issue of Journal of Indian Education discusses some of the important themes, which are also mentioned in the draft of National Education Policy.

The paper by Preeti Vivek Mishra titled 'Charity Begins at Home: Doing Gender Inclusivity in Teacher Education' explores how inclusive are the conceptualisations which are driving the apparition of a teacher in current discussion on teacher education policy frameworks. The investigation is premised on the claim that any argument on gender inclusivity in policy frameworks must at the outset, scrutinise how the policy discourse itself posits gender, and secondly, whether and how it recongnises and talks about teacher quintessence.

In the paper titled 'Understanding Curriculum through the Concerns of Marginalised', Divyanshu Patel takes on with the term curriculum, and attempts to comprehend how it becomes an apparatus of ruling out and divisiveness. This paper echoes on how the strength of curricular purposes has a lethal impact and how curriculum operation has propensity to add force to the ongoing social hierarchies.

Personal and social progress is imperative for children for their overall well-being, apart from academic success. Puja Roy's 'Psychological Interventions for Better Physical and Mental Health of School Children' focuses on the psychological interventions for shaping physical and psychological well-being of school children.

Owing to the increasing concern about a differently-abled population in India, the paper titled 'Inclusion: Way Forward to Redefine Classrooms' by Neha Gupta is an attempt to abridge all spheres of this population. The paper discusses the population segement of differetly-abled with a relative description of different categories of disabilities. It also has a range of policies to redefine a standard classroom to make it more accommodating for special children.

The paper titled 'Bullying as a Menace among Adolescents' by S.Prabhu Shankar is an attempt to study bullying in its varied outlines, the consciousness of the bullies, their individuality, their impetuses and the other reasons behind bullying. From the study it was observed that, while on the one hand, students who fit in to a physically dominar peer group, are involved

in serious bullying behaviours; on the other, and students who are physically weak, shy-natured and deficient of social disclosure go through bullies.

Internship is an important element of preparation of a teacher in making. 'Restructuring Internship in Teaching, SEP and School Based Practicum' by G.N. Prakash Srivastava talks about the significance of internship in teaching as depicted by NCERT in 1963 and 1991. The paper suggests that post-internship activities may contain post-internship group discussion on interns' (trainees) performance and giving out of experiences.

A paper written by Chanchal Tyagi and Pradeep Kumar Misra titled 'Teacher Educators' Perceptions about Continuing Professional Development intends to study teacher educators' acuities about different characteristics of Continuing Professional Development (CPD) and also measures up to their acuities with respect to teaching practices and nature of serving institutions. Conclusion opens up that for most of teacher educators, CPD is comparable to INSET (In-Service Teacher Education) programmes and different INSET activities like workshops, seminars, and training programmes are key elements of their CPD learning and practices.

NCERT has been continuously updating the curriculum of school education by altering the models from subject centered to child and activity centered. Shweta Singh and Sunita Singh conducted a study titled 'An Analysis of the Activity of Science Textbook with Reference to Science Process Skills' to investigate the nature and success of the activities, given in NCERT Class IX Science Textbook. The study divulges that the activities enclose basic science process skills in a representative way and that most of the activities are given in an operant form while some activities are complemented by non-operant form.

Democratic system of governance is considered as the best system available for managing conflicts without having to take recourse to cruel means and violence. The study by Promila Dabas titled 'Education for Citizenship in Democracy' looks into the research question of the perception of school teachers towards the role of course content, transactional strategies, co-curricular activities, textbooks, evaluation procedures and the school environment in developing education for citizenship in democracy. The paper signifies that teachers have a constructive role towards education for citizenship in a democracy like India.

It is imperative that schools utilise methodologies that make civic education appealing, practical and useful. 'Connecting Civics to Life around us: An Experiment with Municipal Corporation School in Pune Region, India— A Qualitative Study' by Bhakti Bhave, Kaamini Jayashree Suhas, Apurva Barve explores and educational initiative called Civic Action Project (CAP). Idea of the study is to explore how students put their knowledge and skills to use while taking action to solve a supposed civic issue.

Conclusion of the study explains that hands on experience in CAP can help teachers encourage knowledgeable civic engagement among students.

Gender, residential surroundings and socio-economic category control digital usage motivations. The study done by Wahid Ahmad Dar and Kounsar Jan titled 'Exploring Differences in Students Digital Usage Motivations in Kashmiri Context' tries to understand Students Digital Usage Motivation Scale (DUMS) for identifying individual divergences among students based on different demographic variables. The study has put forward that males and females differ on first order motive factors of education, capital enhancing and self-presentation and second order motive factor of socialising.

Vijayan K.
Academic Editor

Charity Begins at Home: Doing Gender Inclusivity in Teacher Education

Preeti Vivek Mishra*

Abstract

The policy discourse in teacher education is replete with clarion calls to institutions and individuals, respectively, to prepare and become teachers who are 'humane' and 'inclusive'. The present paper flips the reality on its head to investigate how inclusive are the conceptualisations which are driving the vision of a teacher in recent discourse on teacher education policy frameworks. Specifically, the paper seeks to focus on the construction of gender in National Curricular Framework for Teacher Education-2009 and gauge how much inclusive this construction is. The inquiry is premised on the assertion that any discussion on gender inclusivity in policy frameworks must firstly, examine how the policy discourse itself posits gender, and secondly, whether and how it recognises and addresses teacher embodiments. As the present inquiry is based on textual articulations in a finite form as encapsulated in NCFTE-2009, the methodology adopted is qualified as a discursive textual analysis. Findings reveal that NCFTE's vision displays a recurrent commitment to the values enshrined in the Constitution of India and it is against this backdrop that the concept of inclusion is seemingly framed too. It is in its charting of the topography of social exclusion in education that NCFTE makes evident its recognition of and concern for inter alia gender-based exclusion. NCFTE displays a clear intent through curricular suggestions and policy rhetoric that teacher educators and teacher trainees alike need to engage with gender as both an area of study as well as of self-scrutiny. A closer scrutiny however, reveals a tendency to abridge the entire gender conundrum to mean girls only. A biological essentialist underpinning too is evident as the framework conflates sex with gender, and fails to recalibrate the discourse of gender.

Key words: Teacher Education, Gender Inclusivity, Heteronormativity bias

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The Investigative Context

The policy discourse in teacher education has repeatedly posited the goal of preparing 'humane' and 'inclusive' teachers as a fundamental one. Teacher Education Policy Frameworks call upon both teacher education institutes and teacher educators alike to adopt and respond to this goal in all earnestness. The present paper takes a critical view of the policy framework and emphasises on these two themes by seeking to investigate whether the conceptualisations driving the vision of a teacher in teacher education policy frameworks are by themselves humane and inclusive, to begin with. The NCFTE-2009 forms the investigative context to do so. Given that NCFTE-2009 does not define humane per se whereas the dictionary definitions of the term routinely throw up words such as sympathy, compassion, benevolence and 'that which tends towards humanistic culture' (Merriam-Webster, n.d.), one needs to ask if the vision of the teacher promulgated in the policy framework itself exhibits any sympathy, compassion or benevolence towards the teacher as an individual.

With reference to inclusion, which the framework does attend to in considerable detail, the paper seeks to focus the constructions of gender in NCFTE for and gauge how inclusive these constructions themselves are.

The Discomfiture and the Conceptual Backdrop

The courage for the present undertaking emanates from Saldivar-Hull's (2000) exhortation to researchers to make conscious attempts to swim against the tide, question the emphatic and look beyond; way beyond, the seemingly sacrosanct. Saldivar-Hull asserts:

> Hegemony has so constructed the ideas of method and theory that often we cannot recognise anything that is different from what the dominant discourse constructs. As a consequence, we have to look in non-traditional places for our theories.(Saldivar-Hull, 2000. Cited in Saavedra, 2006, p. 3)

Attempting a juxtaposition of Hull's discomfort with patterns of paradigmatic, methodological and discursive dominance in academic research onto one's own predicament as a Teacher Educator, I reckon that the dominant discourse in this case is evident due to the phenomenal currency enjoyed by the terms 'humane' and 'inclusive' in recent policy frameworks on education in general and on teacher education, specifically (NCF, 2005, NCFTE, 2009).

Turning to Hull's advice on looking at non-traditional places for research and theorisations, the present investigation deems it apt to move beyond the default discussions on learners, curriculum, educational spaces and so on and rather seeks to focus on the teachers as persons—specifically the discursive

construction of their gender identities and embodiments.

The rationale behind this choice emanates from, firstly, a theoretical location which emphasises 'teaching' as fundamentally embodied labour (Connell, 2009, p.10). Bondi (2009) too, in her work on history of feminisation of teaching, draws upon feminist literature to provide theoretical support to enmeshing of gender performance through bodies, and teaching as she remarks:

> …gender is something that is done or performed reiteratively and repetitively, with a degree of variability in the form of multiple versions of femininity and masculinity, and at least some degree of instability and contingency…On this account, gender is necessarily being done all the time by all participants in teaching contexts, albeit in a variety of ways. (p. 334)

A second stream of thought arises from the work of Saavedra, who in her extensive perusal of literature on the intersections of teaching and gender, laments that in most of the literature pursued, '*Maestras* are represented as body-less entities.'(2006, p.2). She continues her observation—

> The absence of the body is problematic… Knowledge and power over teachers is unleashed without regard to the discursive impact on their bodies and those of their students…the body is ignored, passed over, and perhaps denied to the point of invisibility. (Saavedra, 2006, p. 2)

The author was stuck by the omission of 'the body' in the discussions on gender and wondered whether the reality was any different in the frameworks hailed as progressive and a breath of fresh air in a global era characterised by a decidedly neoliberal-technical managerial framing of teachers and teaching. (Connell, 2009, 2013).

Now, the knowledge and power that Saavedra talks of is a theme with legions of work devoted to it in postmodern, post-structural literature. With specific reference to the 'body', works of *inter alia* Foucault (1978) and Butler (1990, 1993) stands out. John Fiske (1989) inadvertently sums up the essence of this body of work well when he cautions that 'The body is where the social is most convincingly represented as the individual and where politics can best disguise itself as human nature' (p. 70).

My own motivations and apprehensions as a researcher are inspired by and framed against these intersecting backdrops. Put concretely, the terms humane and inclusion themselves are fundamentally discursive constructions, which by default mandate a deconstruction as to their ontological and ethical leanings. In addition, their adoption and recurrent use in policy frameworks endow them with institutionally legitimised and systemically reinforced power as knowledge (Foucault, 1978). It then is warranted as one's *dharma* as an academic to engage in a minute investigation of what these ontological-

ethical leanings are, as also what are the precise messages being sent out, advertently or inadvertently, around what constitutes gender, and by extension how is the discursive import of inclusion vis-à-vis gender? In other words, given that there is no escaping the discourses and discursive practices around gender, and also the irrefutability of the fact of bodies too being constructed discursively through discourses and practices, any discussion on gender inclusivity in policy frameworks must firstly, examine how the policy discourse itself posits gender, and secondly, whether and how it recognises and addresses teacher embodiments.

My position on why such an investigation is critical, is summed up well by Saavedra (2006); who notably is a practicing educator herself, when she says—

> Once a concept, idea, or body is identified, categorised, and classified, it is easier to regulate and control it through the management of discourse. The same could be said about managing educational constructs such as special education, accountability, gifted and talented, ability, and aptitude, and ultimately the subjects and objects of education: the teacher and student. (p. 17)

As an academic researcher, I am wary that should we miss an overt dialogue on the issues outlined thus far, the constructions, whatever they may be, will remain unaddressed, unearthed and thus will always have the potential to be hegemonic. An unravelling is thus crucial for teachers and teacher educators alike to critically question and decide whether the vision of humanness and inclusivity is one that reverberates with them— at all, partially or even in entirety?

Methodological Imperatives: Epistemic Rationale and Methodological Continuities

The study occupies a post-modernist inclination for it seeks to raise questions about discursive narratives constructed as 'truths' in relation to the vision of teachers which in turn will influence the lives and work of teachers. In other words, this work seeks to engage in an 'active deconstruction of the meta-narratives that define the teacher' (Saavedra, 2006, p.9).

In addition, in seeking to explore the constructions of gender, whether binary and essentialist or non-binary and constructionist, or even somewhere in between, the work seeks to address the fallibility and challengeability of boundaries between categories— whether they are ontological, epistemological, ethical or material (Shildrick, 1997). Finally, the work also weaves in intellectual flavours from both feminist and queer locations as it seeks to investigate the existence or absence of any normalising discourses around gender in education.

In traversing from epistemic location to the commensurate

methodological choices, one may argue that for a work premised so entirely on discourses and practices, discourse analysis becomes the obvious method of choice. I, however, submit and argue that given the entire inquiry is based on textual articulations in a finite form, the methodology needs to be qualified as a discursive textual analysis (instead of discourse analysis).

To term the methodology discursive textual analysis, is not to legitimate or subscribe to an analytical separation between *texts* and *discourse*; *on the often suggested grounds* that textual analysis has a linguistic undergirding while discourse analysis pertains to sociological analysis (Van Dijk, 1997, Fairclough, 2003). Instead it is to acknowledge that texts; once etched into a written form are a relatively limited manifestation of a societal discourse and can at best allow only a certain type of discourse analysis.

The decision to qualify the methodology as discursive textual analysis is also bolstered by Fairclough's (2003) claim that the social constructivist arguments can only be moderately applied with reference to textual data. The idealist argument of texts constructing social reality overlook factors like what social reality already exists, who is constructing the texts, who is the text targeted at, how are texts appropriated, etc.

In choosing to qualify the methodology as such, the intent is not to establish a hierarchy of authentic discourse analysis or reject the possibility of studying individual texts. Rather, it is to re-emphasise that discourses differentially emerge in and get reflected in texts. Individual texts give clues to a discourse which is never entirely available otherwise. It is the researcher's position that an awareness of these distinctions between discourses in all their complexity and their specific relationship with texts is a useful reflective devise for researching texts.

Text Used: Ethical Considerations

The National Curriculum Framework for Teacher Education-2009 is the focal text for the current investigation. As an official document, the NCFTE-2009 was readily available in public domain for download. As a result, the issues of authenticity and reliability of documents (Scott, 1990) as well as ethical considerations regarding author permissions, procurement and storing of documents did not arise.

Humane and Inclusive: The Professed Vision of NCFTE-2009

National Curriculum Framework for Teacher Education–2009 sub-captioned 'Towards Preparing Professional and Humane Teacher' envisions the teacher as fundamentally humane. It accordingly asserts, "Though verily a professional, the teacher's personality,

in being humane to the learners, is the core foundational issue on which this Framework is based…' (NCFTE, 2009, p. iii). Hereafter, however, the document lacks a clear explication of the term 'humane' despite being strewn with numerous references to derivatives and seemingly related usages like humane attitudes, humanity, human sensibilities, etc. Even when so used, much is left for interpretation and inference. For instance, in the assertion that 'The concern is to make teacher education liberal, *humanistic* and responsive to the demands of inclusive education.' (NCFTE, 2009, p.19)

The usage of the term 'inclusion' on the other hand is far more precise, unambiguous and chiselled. At the outset, NCFTE's vision displays a recurrent commitment to the values enshrined in the Constitution of India, and it is against this backdrop that the concept of inclusion is seemingly framed too. The NCFTE admits its commitment to constitutional values at the very outset when in the Preface it submits that *inter alia* 'the fundamental tenets enshrined in the Constitution of India have guided the development of this Framework' (NCFTE, 2009, p. iii). As NCFTE-2009 also explicitly acknowledges the vision of NCF-2005 as its intellectual-ethical beacon light, it is crucial to point out that the NCF-2005 too categorically and unequivocally underscores its adherence to the Constitutional vision of 'India as a secular, egalitarian and pluralistic society, founded on the values of social justice and equality' (NCERT, 2005, p. vii)

The commitment to the constitutional values of equality, justice, liberty, fraternity and secularism is variously and recurrently reiterated throughout NCFTE-2009 in discussions on its vision of and for citizenship education (p. 21), of in-service teacher education (p. 65), etc. It is a fair observation that the NCFTE-2009 displays an inclination to synonymise inclusion with the constitutional ideal of social justice, and exclusion with social deprivation. To illustrate, in a section dedicated to 'Inclusive Education', a prototypical usage of the above kind is encountered in a specific reference to teachers' role in ensuring inclusion as NCFTE-2009 stresses that 'Teachers will have to be equipped if social deprivation has to be overcome through education and Constitutional goals of social justice are to be achieved' (p. 13). As an extension of this constitutional parlance intermingling with inclusion, the NCFTE–2009 also envisages teachers as influencing social attitudes and as actively engaging in overcoming discrimination inside classrooms. (p. 65)

The twin emphasis on altering attitudes and taking definitive and concrete measures to promote non-discriminatory educational contexts pointed above is a recurrent trope in NCFTE-2009, which thus, define inclusive education as—

Inclusive education refers to a philosophical position as well as an arrangement of institutional facilities and processes. This is to ensure access to and conditions of success in education for everybody, including those in the margins, either with learning difficulties because of physical or mental disabilities or because of their social position. The aim is to create an integrated school setting, providing equal opportunities to children with special abilities, varied social backgrounds and diverse learning needs. (NCFTE, 2009, p. 13)

It is aplomb worthy that the NCFTE is sensitive enough to highlight 'social exclusion' (alongside exclusion of the children with disabilities of different kinds and learning difficulties) as 'a more insidious pattern of exclusion' (p. 13).

It is in its charting of the topography of social exclusion in education, that NCFTE makes evident, its recognition of and concern for *inter alia* gender-based exclusion. It is to this specific end that the paper now focuses on.

Gender and Inclusion: The Professed Vision of NCFTE-2009

At the outset there is recognition of gender based exclusion as echoed in statements like 'Regional, social, and gender disparities continue to pose new challenges.'(NCFTE, 2009, p. 2, p.30). In addition, there is recognition of gender as both a defining feature of the contemporary Indian society and the perennial challenge it posits to it (NCFTE, 2009, pp. 30–31, 80, and 82). Also, evident is the recognition of the need to continually engage with it at various levels of education including teacher education. (NCFTE, 2009, pp. 10, 13–14). A logical continuity to these recognitions is maintained through exhortations of teachers to be aware of 'rights for gender equality and their implications for social change.' (NCFTE, 2009, p. 30)

Continuing with these observations, the NCFTE builds a case for commensurate professional development of teacher educators such that they can 'help teachers to reflect upon their own positions in society' with reference to *inter alia* gender (p. 76). The constant undergirding of gender throughout the document is again visible as the NCFTE forwards at least two suggestive curricular areas namely—a. Gender, School and Society and b. Developing the Self and Aspirations as a Teacher, both with the professed aim of understanding one's ideational and identity locations through a gender lens. The professed vision seems encouraging, thus far. Clearly, the NCFTE wishes for teacher educators and teacher trainees to be engaging with gender as both an area of study as well as of self-scrutiny.

Bolstered by the focus on gender, one turns to pursue how the NCFTE sees these understandings getting translated to teachers actually addressing gender-based exclusion and ensuring inclusion instead. This is pursued next.

Gender in NCFTE : A Relook

The NCFTE identifies gender as a definite ground of social exclusion. However, what is the exact import of this term i.e., whether for NCFTE gender is mounted on an essentialist or constructionist undergirding is for the large part as elusive as the definition of 'humane' discussed earlier. It does not help wither, that besides references to gender as an area of study as in 'Gender theory' or 'Gender studies', other uses of the term too fail to lend an insight into NCFTE's construction of gender. This is so, as most terms vis–a–vis gender perspectives, gender disparities, gender equity, gender equality, gender roles are predicated for their exact meaning on the prefixed term gender; the definition of which is conspicuous by absence.

Discourse analysis has a useful epistemic tool to offer here. Discourse analysis focuses not only on language but the interlinkage between languages (Fairclough, 2003). So an essentialist framing would manifest in sex-based binary construction of subjects as boys and/or girls (Mishra, 2016). On the other hand, non-binary identifications have no currency in essentialist framing. Carrying on with this epistemic scaffold and upon a closer scrutiny of references to gender in other formulations of language reveals a truncated notion of gender. To illustrate, the NCFTE while elaborating upon nature and remedies to social exclusion notes:

'The second and more insidious pattern of exclusion is the social exclusion of children who come from socially and economically deprived backgrounds— Scheduled Castes (SCs), Scheduled Tribes (STs), minority and other communities, girls and children with diverse learning needs.' (NCTE, 2009, p. 13)

Notably, as in the above instance, there is a tendency to abridge the entire gender conundrum to mean girls only while discussing inclusion. This is evident again in a discussion on measures to address gender-based exclusion. It remarks that, 'Teachers need to be equipped to sensitively bring and include girls in the classroom transaction.' (NCFTE, 2009, p. 13)

That this synonymising is decidedly essentialist can be proven on the following grounds— Firstly in a clear illustration of biological essentialism it conflates sex with gender. Secondly, and more subtly, it essentialises all girls as a class, as it fails to recognise the intersectionalist reality of gender, especially, in a society as socio-economically stratified as India. Thirdly and by corollary, it fails to recognise the differential matrix of exclusion as it intersects the life of boys, who by no means form an essentialised homogenous class. It is little surprising then that a quick word search for 'boy/boys' through the NCFTE returns zero results.

In a consolation of sorts, one does come across two mentions of gender

in conjunction with 'identity' (pp. 34, 57), but the above discussed essential framing forces one to ask whether it is epistemically viable for a researcher to presume a constructionist framing of gender based on these especially since in keeping with the tradition of discourse analysis, one does not find through the text any attempt to broaden the discourse on gender beyond the usual by allusions to either embodiments, sexualities, heteronormativity and so on.

Epilogue

While still on the discursive constructions, one also senses a discursive attempt at— firstly creating teachers as particular kind of subjects, and secondly, by extension controlling what can and cannot be said, thought or be acted upon with reference to them. Saavedra's comment on women teachers, which I will analogously draw upon to carry forward my analysis, is helpful in unearthing the 'insidiousness' of any discursive construction as she notes:

> Discourse ultimately serves to control not just what but how subjects are constructed. Language, thought, and desire are regulated, policed, and managed through discourse... the discourse of femininity inadvertently informs, influences, and shapes women's identity to the point that women act out and behave according to what has been labelled as acceptable and true about females. (Saavedra, 2006, p. 6)

I argue that what is true of the impacts of discursive constructions on women/females as an essentialised category is also true of any other category essentialised and in NCFTE's case—the teachers. To illustrate the genesis of both this recognition and the discomfiture it creates in the author, the NCFTE proclaims that 'there is a dire need to equip teachers to overcome their biases in this regard (social exclusion) and to develop professional capacities to address these challenges' (pg.13, parenthesis added). Several discursive constructions demand attention here—firstly, the role expectations from the teachers are essentially instrumental and interventionalisitc. The framing fails to recognise that any charity must begin at home. In other words, the NCFTE despite being a document on teacher education continues to have the empowerment of the school-going learner at its pivot. Laudable as it is as an aim, it smacks of an adultist bias whereby it fails to identify teachers (both pre and in-service) as learners. In addition, it also points to a lack of recognition of teachers as persons first and foremost who need to be understood as humans with specific life histories shaping their beliefs, attitudes and ideological locations. Any allusion to teacher biases without adopting the same fervour that teachers are expected to display when dealing

with or handling student biases is an error on part of NCFTE.

The truncated vision of gender is especially hurtful as it is not as though recognition of the need of gender inclusive teachers and educational contexts is lost on NCFTE in entirety. It is simply that the NCFTE sorely misses the opportunity to recalibrate the discourse to make it more empowering and inclusive for teacher educators and teachers across the gender spectrum.

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Understanding Curriculum through the Concerns of Marginalised

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Abstract

The paper engages with the term curriculum, and attempts to understand how it becomes an instrument of exclusion and divisiveness. This paper reflects on how the dilution of curricular goals has a deleterious impact and how curriculum transaction tends to reinforce the existent social hierarchies. The paper also briefly discusses about the key curricular recommendations of NCF 2005, Kothari Commission (1964) and Yashpal Committee Report (1993) particularly with respect to the representation of the marginalised in the Indian educational scenario. The discussion is done in light of concerns about the oppressed classes voiced in the Mandal Commission Report (1980). In this paper, an attempt has been made to delve into the underlying concerns that characterise developing a curriculum, particularly in the Indian context. Section 1 of the paper is an exploration of the term curriculum. It is pertinent to delve into the same as it forms the basis of understand how divisiveness and sectarian interests permeate the framing of the curriculum. Key aspects of this dimension are discussed in Section 2. Drawing insights from research studies on curricular framing and policy outlook (discussed in Section 3), an attempt has been made to explore how textbooks are often non-neutral, biased and are influenced by the socio-political factors and interests of dominant groups in the society. This analysis draws upon insights from policy initiatives such as the National Curriculum Framework (NCF 2005), reports and the efforts made to make education more inclusive, as elaborated in Position Papers on SC and ST by National Curriculum Framework (NCF 2005).

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Conceptualisation of Curriculum

The term curriculum has broader connotations with respect to the traditional understanding of a series of subjects that learner encounters for a specific period of time. Marsh (2009) describes that understanding the curricular dimensions requires an investigation at three levels which encompass looking at the planned aspects, how it is enacted and the experienced curriculum which hints at what is going on in the classroom. This understanding of the term curriculum is not limited to the idea of what is specified or deemed to be standardised. It rather includes the unpredictable dimensions of transaction of curriculum in the classroom. The need is to understand that the term curriculum is not only limited to certain academic subjects. Also, there must be flexibility with respect to the context of the learner. Marsh (2009) highlights that principles of curriculum construction must be inclusive in terms of how it addresses needs and experiences of learners, that involves making decisions about the content and process, and the range of issues, topics and concerns that need to be addressed.

Curriculum has been central to the understanding of processes by which knowledge hierarchies were established and validated. According to Brown (2013), 'the structuring power of knowledge was implicated as a force arbitrarily negotiating and sponsoring a cultural authority while underwriting a given social, cultural, and economic order.' (p. 5). Theorists have repeatedly laid emphasis on the idea that schools are non-neutral institutions linked to the larger society through principles of domination and social control. The new sociology of education has been instrumental in viewing school from the perspective where schools could no longer be counted on to eliminate division within society they reinforced them through pedagogies, content and the hidden curriculum. In subtle and sometimes not so subtle ways, overt and implicit forms of knowledge transference promote class divisions.

It can be asserted that the curriculum functions as a powerful instrument which ratifies the nature of knowledge that is recognised and institutionalised through norms of approval. It can be stated to be 'purposively oriented'. However, instead of the common notion of what constitutes 'a model or an ideal curriculum', it is imperative among other considerations to recognise the composition of students and other sub-regional variations while framing the syllabus. Instead of carrying forward the legacy of outdated topics and replacing idea of comprehensiveness with information and facts it is essential that the syllabus and therefore the textbooks are suitably adjusted according to the needs and requirement of learners. It is a pertinent issue which should be taken into consideration while framing the curriculum.

Framing of Curriculum in India

Kumar (2004) laments the lack of deliberation over the framing of the curriculum. Describing the role of the bureaucracy in curriculum designing for the school stage, quasi-bureaucracy of the state-controlled institutions of pedagogical research and training, it is emphasised that a reflective inquiry into the structures of knowledge has seldom been on the agenda. Given, the ramifications of the integral relation between school and society, it is essential to recognise curriculum deliberation as a 'social dialogue' (Kumar, 2004, p. 14). It requires engaging on a wider level with different stakeholders in the education system and with the know-how of the variedness of social conditions and perspectives.

Kumar (2004) highlights that to facilitate expansiveness in the scope of deliberation and construction of the curriculum, it is vital to include teachers in the process. This also must refrain from being a mere token gesture; rather 'more important is the capacity of a deliberation to be sensitive to the dialogues going on in the wider society' (Kumar, 2004, p. 15). However, the subordination of the teacher and the muting of the voice and agency of the teacher in the culture of education in India give out a message of the blatant refusal to recognise the significance of teacher participation at a wider level. Teacher agency has been dominant in the past Indian educational narrative. A glance at the guru-shishya tradition testifies to the importance of the exemplary, inspiring and essential value imparting Indian teacher. However, when a reference is made to the present scenario of the role of the teacher in state-led education system the spectrum varies from selective involvement to blatant disregard and alienation. Thus, in the larger process of social transformation through education, the role of the teacher, though given a pedestal according to the normative understanding of guru-shishya tradition, the teacher's presence remains unacknowledged. He further highlights that the little curriculum deliberation taking place in the higher circles of educational power remains extremely poor on account of the absence of the teacher's voice.

Highlighting the ill effects of the transcendental nature of the school curriculum, Kumar (2004) explicates that the disjunction between reality and the content of the curriculum is a cause of concern as issues that our society is grappling with find no reflection in the school's daily curriculum. The absence of any link with real life concerns tends to present only one-dimensional perspective of knowledge. 'The knowledge imparted in the classroom transcends all living concerns that children as members of the society might have, as well as all other concerns that the adult members of society have and which will affect children' (Kumar, 2004, p. 14).

Basis of Curriculum Formation

The crisis remains as the efforts to bridge this gap in pedagogical planning have had minimal outcomes. The attempt has been to bypass rather than remeding the dissociation between schools and society. Kumar (2004), argues that the overemphasis on the broad principles of children's psychology as adequate basis for developing suitable curricula and materials has led to the overlooking of the socio-cultural dimensions of the curriculum. This has particularly been expressed with regard to the 'behavioural objectives' of education schematised in taxonomy by Bloom (1956). The major issue associated with the same is the description of the objectives of curriculum and teaching largely defined in behavioural terms. This view, according to Kumar (2004) only takes into consideration the objectives with little regard for the knowledge content used to achieve these behavioural aims. Thus, the skills developed take precedence over the content or situation which may require using these skills. This view of curriculum takes into consideration 'how something is learnt rather than what is learnt. It promises a technical means to transcend the milieu, and it legitimises such transcendence in the name of effective instruction' (Kumar, 2004, p.16).

Nawani (2010) emphasises on the role of textbooks in legitimising and limiting the spheres of knowledge, more through the convenient exclusion of content. Describing the same as the vital reason why textbooks have been problematised and politicised, she also adds it to the issue of convenient acceptance of the textbook as all that needs to be dealt with in the sacred portals of the classroom. Analysing the complexity of this contention with respect to History textbooks, Nair (2012) highlights how the word has attached emotive and political connotations to itself. Further, she explains how questions raised with respect to textbooks have been fundamentally addressed such as concerns of self-representation, cultural identity, versions of history, facets of citizenship, etc. Particularly discussing the same with respect to history textbooks, she states that textbooks are a resource for the State to 'disseminate a national consciousness and a "right" perception of the past' (Nair, 2012). Due to the sheer variedness of historical interpretations, textbooks for teaching history are often sensitive to issues of contemporary politics and culture. The degree of emphasis, people and events chosen to be represented are questioned.

As highlighted by Rathnam (2000), for designing of the curriculum, a selection process is at work, but what is even more perplexing is how and what kind of selection process is operative in a democratic set up. The reference is made to the idea of a coherent ideology which becomes functional when a curriculum is etched out. Apparently, cohering this can be questioned on the grounds that it is homogenising in nature

which is further problematised and complicated by the understanding that there levels of schooling and access were made available to different sections of the population. The persistent issue has been the inability to adequately draw the linkage between the aims and issues with the contents that should be incorporated in the curriculum. Because of the sheer diversity and the heterogeneity of the socio-cultural landscape, it requires consistent efforts and participation by all stakeholders in order to make it enriched and relevant. These include giving valence to dynamics of the indigenous practices, art forms, literature and narratives. Combined with an interdisciplinary approach, there has to be multilingual effort. The social concerns must necessarily find space in the pedagogy and the resources prepared for teaching-learning purposes.

Nambissan (2000) highlights the issue while discussing about the role of the curriculum emphasises on giving due consideration to the manner in which the educational experiences of Dalit and Adivasi children are influenced by the larger context of social marginalisation of these communities. The discriminatory attitudes contribute to negatively impacting the educational experiences of these children in classrooms which are usually in want of resources and motivated teachers. She further emphasises that exclusion on the basis of language and culture are instrumental in passing on message of inferiority to the students throughout the schooling process. In light of these concerns, the efforts directed at curriculum construction must not be limited to mere rhetoric but rather they should be aimed at being constructive. The description of curriculum in National Curriculum Framework (NCF 2005) as a network of learning experiences or set of planned activities essential for realising the aims of education, and syllabus as a more focused constituent of the same is important. It highlights the view that it is not rigid or prescriptive but rather flexible, giving scope for specificities of the socio-cultural, historical and individual aspects to shape the course of the educational experience.

The overwhelming importance attached to the examination system in the determination of what is to be included in the curriculum is also a negative factor. It negates or devalues the importance of keeping into perspective the role of aims, the context and the cognitive requirements of the learners. A generalised, traditional understanding of the term curriculum underlines the fact that it is centred on the respective subject knowledge that can be accessed through the textbooks, and the subjects are dealt in an isolated manner. The need for memorisation often overwhelms the socio-political, geographical, and cultural diversities that exist across different areas.

Reports and Commission on Education and Curriculum

National Curriculum Framework (NCF) 2005

One of the primary reasons underlying the overwhelming neglect of construction and transaction of curriculum has been that it has not been recognised as an act of deliberation. It has been an area of discussion and debate but confined to a domain which conveniently excludes a majority that partakes and participates through multiple ways with differing curricular dimensions on a daily basis. The perception has been dominant that its ramifications are only limited to a few within the school and stakeholders who participate in the process of its formation. Outside this domain it is deemed to be 'only' the state's responsibility to provide education. This mindset is instrumental in shaping the society as a mute receiver of knowledge or information which cannot be contested or challenged. The National Curriculum Framework critiques this alienated and one-dimensional flow of knowledge. Also, refraining from structuring educational knowledge according to a rigid particular pattern, it provides guidelines that attempts to bridge the artificial gaps created between home and school knowledge. It recognises that the immediate socio-cultural milieu offers a rich resource as thriving knowledge base, and replacing this with an information overload weakens the foundations and limits the accessibility.

The document has been exemplary in attempting to give an in-depth understanding of the pedagogic concerns by drawing in socio-psychological complexities. Emphasis has been laid on the societal contexts, the process of knowledge generation, the learning environment and concerns of curriculum design. It further reiterates the need to respond to specific developments and concerns arising in contemporary debates such as: the retention of all children in school to achieve the goal of Universal Elementary Education; fostering democracy as a way of life; inculcating respect for constitutional values of plurality and secularism in children; promoting decentralisation to facilitate the generation of locally relevant knowledge and curriculum practices; sensitisation to environmental issues; and broadening of the scope of curriculum to include traditional crafts, work and knowledge.

A glance at the Position Paper of National Curriculum Framework (NCF 2005) titled Curriculum, Syllabus and Textbooks, drawing a historical continuum, on the document emphasises on the need for interrelatedness of the content articulated by various educational commissions. Citing the position of the Secondary Education Commission (1952), the document states that 'No single textbook should be prescribed for any subject

of study, but a reasonable number which satisfy the standards laid down, should be recommended, leaving the choice to the schools concerned' (Ministry of Education, 1952, p. 83). Successively, Secondary Education Commission (1964) also emphasised on quality of education and textbooks being a primary concern, citing the lack of research in preparation and production. The commission advocated the establishment of 'national standards' and recommended centralised textbook production level. Citing development in areas of child development pedagogy and the necessity for contextualisation of the curriculum as the need of the hour, National Curriculum framework (NCF 2005) upholds that idea yet supports multiplicity by stating that the idea, of nationalisation may mitigate the intention of making learning relevant.

The attempt should be to counter the politically partisan intentions that tend to determine the course of curriculum. The urgent need is to address and counter non-secular trends and concerns such as the communalisation of the past, the gendered representations and the barriers of caste and class discrimination, stereotypical values being promoted through curricular practices. This need for critical education must be translated into the textbook. The commitment towards equality in education has been voiced through all major policy initiatives. However, the task of concretising this vision into textbooks is challenging enough and remains not fully realised (MHRD Report 2005, pp. 6–11).

The Kothari Commission (1964) also emphasised on the problems that arise when India is seen simply in terms of developmentalist approach as it treats poverty, illiteracy, and casteism and not from a perspective which brings to fore the myriad forms in which these malaises have become entrenched in the social setup. Instead, the Commission suggests an epistemological shift essential in designing the curriculum that takes into purview or accommodates the multiple ways of imagining the Indian nation. With this perspective, it also emphasises on the idea of linking the local knowledge. It thus, demonstrates the need for a creative balance. In order to achieve balancing between national and local, it is necessary to incorporate the local perceptions through which the people can relate themselves to the nation. Doing this will also ensure a much deeper and richer understanding of the nation.

Kothari commission (1964) also highlights a seminal concern of restraining the ambit of what can be classified as relevant for the scientific enquiry. Debunking the presumption that it is only natural and physical phenomena that can be subject to scientific inquiry, it puts forward the perspective that human sciences (history, geography, economics, political science, etc.) are 'scientific', but not in a reductive manner. It dislodges the association of some

subjects with a higher pedestal and the need for imitating the methods of physical and natural sciences in order to have the 'higher status' and legitimacy enjoyed by the natural sciences. Rather the commission emphasises on the distinctiveness of the discipline and the methods deployed as different, according to the requirements, but equally scientific in their endeavour.

Another significant concern that is highlighted is the role of the social sciences 'to create and widen the popular base for human values, namely freedom, trust, mutual respect, and respect for diversity.' Explicating on the same, the pedagogical implication that arise, highlights that social science teaching should be aimed at generating awareness and striving towards nurturing critical abilities in order to alert their minds to the society around them. It lays emphasis on the role of discussion. Necessarily concerns such as threats to the environment, caste/class inequality should be the focus though discouraging the need to deal with the same in an explicit manner.

Advocating an interdisciplinary approach, the role of textbooks is described as giving space and possibilities for stimulating the child's thought process and creativity. The interrelationship among disciplines is emphasised upon. Acknowledging the disciplines that make up the social sciences, namely history, geography, political science, and economics, are distinct in the concerns addressed but this should not be a reason for compartmentalisation. Rather, it is essential that the boundaries of disciplines are opened up and diverse approaches are enabled to understand a phenomenon. Besides, dealing with the themes from an interdisciplinary perspective, it is essential that the themes are culturally relevant, and the concepts are introduced bearing in mind the age of the child. It is essential that careful selection of a few themes made, as well as having separate chapters relating to different disciplines are required (Kothari Commission, 1964).

Consistently, the efforts have been made to voice the need for achieving equality through education which had remained unaddressed due to the lack in the quality of education that is provided. There is a wide gap in the translation of this aim of education into reality as it has been referred to and articulated in various vision documents but realising the complexity and the diversity of our nation the attempt has not been holistic in nature. 'The basic problem that emerges has been conceptualising flexibility or diversity which is closely linked to the systems inherent limitation and inability to define the role of the 'curriculum' and its transaction.' (NCERT, 2005). The issue is that the term curriculum in itself has been used in a rigid and inflexible manner and the National Curriculum Framework (NCF 2005) advocates that decentralisation can

be wholly realised only when there are adequate regulatory mechanisms and optimum utilisation of resources in order to contextualise different aspects of the teaching learning process based on the needs and requirements of the learner.

The Yashpal Committee Report (1993) also recommends that the process of curriculum framing and preparation of textbooks should be decentralised in order to increase the teachers' involvement in these tasks. Decentralisation entails autonomy vis a Vis the state or the district level institutions for the teachers and heads of the schools to develop curricular material according to the needs of the local environment. This is considered as a step towards enhancing the relevance of the curriculum and to innovate so as to make the educational experience enriching for the learner. This also entails boosting local partnership and ownership so that there is heightened sense of commitment and responsibility towards education.

Learning with Burden (1993), links the problem of curriculum load to the notions of 'knowledge explosion' and the 'catching up syndrome' (MHRD 1993, p. 20). Analysing the dynamics of the curriculum framing and its transaction from the standpoint of the learner it raises pertinent issues. The report highlights that apparently the textbooks seem to have been written primarily to convey information or 'facts', rather than to encourage children to think and explore. Rote memorisation and retention of information is stressed upon and the issue of accessibility of textbooks is primarily due to the terseness of language and dealing with concepts in an abstract manner distances the learners from the text. The concern is further complicated as the learners have no other resource to resort to other that the prescribed one. Teachers also tend to emphasise on the textbooks as a body of truths which turns all knowledge into a load to be borne by the child's memory. Distanced from the child's everyday life, the content of the textbook further accentuates the transformation of knowledge into a load. Citing the example of social sciences, the report highlights that the practice has been to present every inquiry from a singular perspective that is suggesting one preferred answer to every question. (MHRD 1993, pp. 5-7). The report clearly highlights the importance of recognising the socio-cultural-regional contexts and not treating the child as a homogenised and undifferentiated reader.

Problems of SC, ST and OBC student: National Curriculum Framework 2005 and Mandal Commission Report 1980

The position paper on Curriculum, Syllabus and Textbooks (2005) highlights the necessity of planning the curriculum on the basis of the understanding of where the child is instead of providing an arid learning

atmosphere and for providing justification of curriculum choices and 'therefore, the curriculum is viewed more as a conceptual structure for decision making rather than details of what is to be done in the classroom. It is essential that the workable principles and criteria in most of the areas such as selection and organisation of content, ways of interacting with children and classroom organisation, type of teaching-learning material etc.' (NCF 2005). It is all the more relevant in case of communities historically deprived of education. The context of deprivation is essential to be recognised.

The position paper of National Curriculum Framework (NCF 2005) on Scheduled Castes and Scheduled Tribes present a grim picture of the participation of these marginalised groups in the educational process. Several key aspects of the analysis point towards how a significant proportion of Scheduled Caste and an even greater proportion of Scheduled Tribe children continue to remain out of school. The analysis indicates that accessing basic school is still a problem, especially in certain states and regions which have suffered gross neglect. Another significant factor is the overwhelming numbers that indicate increase in the enrolment. This can be interpreted as a manifestation of the desire to participate in the educational process. However on the obverse, the position paper reiterates the lack on part of the school structure and educational process to retain them and the indicators of educational attainment are bleak in case of these minorities. The indexes of deprivation are even starker in case of girls enroling from amongst these sections in schools. The resolve to equalise educational opportunity has been a constitutional commitment; however equality with respect to access, retention and achievement have not been realised as exclusion remains a depressing feature. The contributing factors have been economic and social deterrents, though differentially for the Scheduled Castes and the Scheduled Tribes. 'Socio-cultural practices of exclusion and discrimination continue to define the existence of the poor Scheduled Castes. Scheduled Tribes are increasingly sucked into the vortex of rural and urban exploitation and inequality' (NCERT 2005). A variety of constitutional provisions testify to the commitment for the education of SC/ST children and articles 15(4), 45 and 46 cover several important aspects aimed at fulfilling the State's responsibility. Article 15(4) highlights the basic commitment to positive discrimination in favour of the socially and educationally backward classes and/or the SCs and STs. Article 45 declares the state's endeavour to provide free and compulsory education for all children until they complete the age of 14 years and Article 46 endorses the aim to promote the educational and economic interests of SC and ST (Austin, 2012, p. 95).

The inclusion of Article 340 in the Constitution of India is indicative of Dr. Ambedkar's vision for an inclusive society. It is an empowering mechanism allowing the government to constitute a commission that addresses the concerns of the Other Backward Classes seeking to deal with issues concerning the social and educational backwardness (Austin, 2012). Despite the stiff opposition by Nehru government, his efforts are seminal in realising an institution to ensure that this marginalised social group is provided with opportunities which had been hitherto denied to them. He reiterated this concern in one of his speeches at Maratha Mandir: "This principle will apply not only to Marathas but all Backward Castes. If they do not wish to be under the thumb of others they should concentrate on two things, one is politics and the other is education' (Ambedkar, 1979).

Ambedkar emphasised on the need for empowering a community in order to progress. He argued that community must necessarily be allowed to have a 'moral but indirect pressure' in order to defend themselves against any injustice and to strive for equal rights and opportunities. He stated that "it is essential that such a pressure is maintained, as without it, the aims and policies of the state cannot have proper direction, on which depends the development and progress of the state"(Ambedkar, 1979). The recommendations made by the Mandal Commission in India, established in 1979 by the Janata Party government under Prime Minister Morarji Desai, with a mandate to 'identify the socially or educationally backward' was a welcoming gesture in this regard. It was headed by Indian parliamentarian Bindheshwari Prasad Mandal to consider the question of seat reservations and quotas for people to redress caste discrimination, and used eleven social, economic, and educational indicators to determine 'backwardness.' The commission's report supported the affirmative action practice whereby members of lower castes (known as Other Backward Classes and Scheduled Castes and Tribes) were given exclusive access to a certain portion of government jobs and slots in public universities, and recommended changes to these quotas, increasing them by 27% to 49.5% (Mandal Commission Report, 1980). The Commission pointed out that the education system was 'elitist' in its form and functioning and the report points out the detrimental impact it has or the serious concerns it raises about children belonging to the other backward classes. Pointing out to the colonial legacy being carried forward in the educational system, it highlighted the mismanagement of the resources and usurpation of the educational sphere by a privileged few giving scant attention to the children from OBC communities who are given no place in this system. It supports the need for a 'structural change' and a proper environment' for 'purposeful

studies' (Mandal Commission Report, 1980). These three terms are very significant in terms of developing an understanding of education from a sociological perspective. The term structural change has vast implications for initiating educational change. It points out to the existing discriminatory institutional practices, which make sure that the non-participative agenda thrives and children hailing from other backwards classes remain out of the schools (Mandal Commission Report 1980, p.56).

With respect to the concern for proper environment, the commission articulates the view that there are several significant reasons which account for the irregularity of the backward class students and high incidence of dropout rates. Firstly, it highlights the socially and culturally deprived environment under which children from OBC communities are born and brought up. The consequence of the same is that they get almost no motivation to study in schools. Secondly, it adds that the lack of material amenities results in most parents engaging them in occupational works at very early age (Mandal Commission Report 1980, p. 58).

The commission thus emphasised on the cultural empowerment of students from OBC communities. It says that upgrading the cultural environment is a very long process but certainly some measures can be taken and it suggested residential schools for OBC children where they can pursue their studies more seriously. It is a suggestion which was implemented by the Chatrapati Shahuji Maharaj in his princely state long back in 19th century and gives an indication that how poorly the cause and issues of OBC's got addressed in independent India (Keer, 1976, p.356). It also emphasised upon the fact that children from this marginalised section were nowhere in educational advancement in the country. It is seminal that they should be provided with adequate facilities so that they can match the educational status with other groups. Here, a little interpretation is required because the report says that 'as the educational reforms are not within the terms of reference of the commission, we are also forced to trend the beaten track and suggest only the palliative measures within the existing framework' (Mandal Commission Report, 1980). It is clear with this statement in the report that people who were involved in drafting of the report were well aware of the fact that without educational reform, none of their recommendations would get fulfilled in a manner as desired by Dr. Ambedkar while drafting the constitution and emphasising on including the Article 340. That is why they make an observation of this kind which clearly indicates that they were forced not to go beyond the bureaucratic terms of reference with regard to education such as concession in fees, new schools,

new plan for education, and all state funded and state supported mechanisms. This raises the question of the much needed reform in the domain of textbooks and curriculum as it is vital to redress the discrimination within the ambit of the institutions of learning.

These two terms— cultural emancipation and proper environment, have far reaching, conceptual and psychological importance too. Kumar (1992) has drawn attention on how the dominant groups' ideas about education and the educated get reflected in the curriculum. Following the curriculum, Indian texts uphold symbols of the traditional, male dominated feudal society and its obsolete cultural values and norms. However, the content of education is divorced from the reality of the changing, dynamic India. It is a choice consciously or unconsciously made by those selecting textbook material from the available body of literature and by those creating it (Kumar, 1992).

So, this perspective of the child coming from the other backward classes for making the curriculum and textbooks is equally important as this community comes at the intermediate level in the traditional Hindu social order and more often than not gets accused for the atrocities against the scheduled caste in the country. It is important to understand the epistemological orientation of the exclusion. It has been popularised by the mainstream media and many scholars, that it is OBC only who are responsible for the atrocities against the Dalits.

Kumar (2014) emphasises on the fact that even after excluding the so called five intermediate castes namely— Yadav, Kurmi, Jat, Gujjar, and Lodh— who make a powerful clout in North India and are numerically and economically strong, the rest of the almost 84 OBC communities for instance —Mali, Nau, Kahar, Nishad, etc., are nowhere in the picture in the power structure of the society. This is indicative of the fact that it is a theoretical fallacy that the so called powerful sections of the OBC are responsible for unleashing atrocities against the disempowered masses when they themselves have not attained that level in the social-political institution that they can be called powerful or advanced in any manner (Kumar, 2014, p.162).

It has to be understood that the children coming from Other Backward Classes have almost nothing in textbooks that they can relate to or identify with. The constructs of their milieu do not find any mention in the textbooks and quite often negative stereotypes are encountered which reinforce the hierarchies. In most cases, it is the upper caste which is prominently depicted. For example in Class VII Social Science book (Uttar Pradesh), a chapter on Mauryan empire states that Chanakya was a Brahmin and he helped Chandragupta Maurya to rule his kingdom. Now, with this explicit mentioning about a particular caste in a powerful role and unparalleled

intelligence, it is not difficult to locate the intent. Thus, it is important that the Other Backward Classes should have a say in the curriculum and textbook making process so that it can become more inclusive and more representative.

It is significant to note that despite being raised at various levels and many times, these issues related to the socio-psychological stigma and pressure in curriculum and textbooks remain in the concerned areas.

Conclusion

A glance at curriculum construction and its transaction lays bare how hidden agendas proliferate and shapes the contours of what can be associated as knowledge within society and culture. Instead of nurturing the intellectual faculties, it is rather detrimental and corrosive. The homogenising tendencies, that marred the secular character of the curriculum need to be countered by taking into account the different facets of representation. Despite the fact that NCF 2005 articulates this vision, these aspects remain unaddressed when a reference is made to its transaction. It is essential that an expansive and inclusive vision of education gives due consideration to the diverse cultures and traditions. The curriculum must offer or seek to address the understanding of concerns that are relevant to the present environment of the learner. The pedagogical practices, instead of being prescriptive in nature should be communicated through discussion, challenging the traditional power hierarchies.

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Psychological Interventions for Better Physical and Mental Health of School Children

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Abstract

Urbanisation and advancement in technology has put new demands on the education system. Personal and social development are vital for children to grow into well-adjusted adults, apart from academic success. This research view focuses on the psychological interventions for shaping physical and mental health of school children. The idea of the school is seen as a learning community, where learning is constructed as a fundamentally social process. Relationships between teachers and students are associated with positive outcomes like increased motivation, achievement, feelings of belonging and affects in school. Family influences including parent-child relationships have been vastly investigated to assess their association with social, emotional and learning outcomes. The joint efforts of educational personnel, healthcare practitioners and mental health providers to successfully tackle the physical and mental health needs of children and even their families is felt strongly.

Introduction

The present educational system is passive in nature. Students are taught that the key to success is memorisation. Also, parents are not very involved in education of their children. The focus is on examination rather than acquisition of knowledge. Emphasis on individual differences is not given. The education system is still chained with ingrained practices, including policy, and decades old methods.

Truancy is seen as unexcused absences from school or classes. Negative consequences associated

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with it extend beyond the classroom into multiple domains of a youth's health and development. Physical and mental health issues contribute to school absenteeism. Adolescents with poor school engagement have a target to participate in risky behaviours that compromise their health. Blum, Beuhring and Rinchart (2000) reported a relationship between school problems and health risks in a nationally representative sample of over 10,000 youth (comprehensive school-based study in the United States). Health risks encompass alcohol, cigarettes, unprotected sexual activity, and weapons related violence and suicide attempts. The study also mentioned that school engagement must be considered a health and educational crisis.

Research says that absenteeism identifies health problems as the root cause underlying truancy. Truancy coexists with student and family, mental health problems and can be an indicator of an existing or emerging mental health disorder, like post-traumatic stress disorder, depression, anxiety or substance abuse. In a study of truancy in Chicago schools, a critical gap was identified in recognising the mental health problems underlying truancy, especially for youth in urban environments where poverty and violence may contribute to family stress, disruption and loss (Roderick et al., 1997). Truancy is also associated with factors within the school climate. Characteristics of school environment that inhibit truancy are— attending to individual student needs, establishing incentives for attendance, engaging students in supportive relationships, promptly addressing student absenteeism, minimising punitive responses and forming relationships with health and human services to address the problems of students and their families (Roderick et al., 1997). It can be mentioned that trusting teachers as mentors from within the student's school would impact the school culture and help in forming positive attitudes and truancy intervention skills within them. A project was implemented in an urban high school and it encompassed two innovative methods— student enrolment in a school-based health center for comprehensive health centers, and recruitment of teachers from within the student's school to engage in mentored relationships (DeSocio et al., 2007). In the project, efforts were made to encourage each student's special interests as a way of linking school attendance to personal aspirations. Small grants from the school were used to create opportunities to promote student's special interests. Example—one student was given a grant to pay for individual art lessons after school, due to the exceptional ability in art. Mentors provided assistance with homework and encouraged positive peer relationships. They also helped in enhancing positive study habits. Students showing chronic

patterns of truancy usually manifest frustration and lowered expectations from teachers and staff which ultimately leads to a growing sense of alienation between students and teachers. Mentor advocacy within the school helped in interrupting this negative cycle and thus, this was a vital part of the given intervention. Group meetings were held between students, mentors and members of the project team which helped in dealing with the highs and lows of working with youth who had critical academic and attendance problems. This encouragement and a relationship based connection within the school significantly influenced the ability to keep these students in school. Thus, the advocacy and encouragement of adult mentors within their school helped in creating connections which counteracted social discentives and feelings of hopelessness and kept them engaged in school (DeSocio et al., 2007). It's been stated in research that without intervention, truancy becomes a habitual pattern that increases with time (Roderick et al., 1997).

A student's overall experience of school is moulded by various factors like individual differences as well as the characteristics of their family, immediate social networks, the societal and cultural context in which they live and learn, and also the social and political agendas of the day that frame school policies, programme and practices. All these factors operate interdependently within the context of the school community and their combined impact contributes to how students perceive the quality of their social, emotional and academic life at school.

Importance of Psychological Interventions in Education System

Psychological interventions help in bringing a significant change in academic settings. Universal promotion of mental health programmes helps in emphasising on concepts like social and emotional skills, positive behaviours, social inclusion, effective problem solving, and good citizenry (Wells, Barlow, and Stewart-Brown, 2003). A meta-analysis focused on the academic benefits of mental health promotion in schools because schools with social emotional learning programmes had an average increase of 11—17 percentile points on standardised tests compared with scores from non-intervention schools (Durlak, et al. 2011). Thus, researchers and others involved in the education system need to be dedicated to ensure appropriate delivery of the intervention. Academic mindset interventions target students' core beliefs about school and learning, like 'can I learn and grow my intelligence' (growth-mindset beliefs) and 'why should I learn?' (sense of purpose beliefs). In doing so, changes occur in the way they interpret and respond to challenges in school, increase students' resilience and set in motion positive recursive cycles that increase

success over time. A study was done where testing of two mindset interventions were conducted—growth mindset intelligence and sense of purpose. This study is focused on effects among poorly performing students mindsets matter most when students encounter challenges in school. Results indicated that each intervention increased students' semester grade point average in core academic courses (Paunesku et al., 2015).

Some interventions have been discussed which would guide the students to be shaped holistically in schools.

Relationships

Relationships are an essential feature of the instructional interactions that frame communications between teachers and their students. Teacher's capacity to absorb productive values about school work, to motivate engagement in learning and to encourage persistence and reduce anxiety during challenging tasks; to listen, respect and genuinely approach their students, all these depend on the effectiveness of student-teacher relationships. A research was conducted by Murray-Harvey (2010) to assess the relationship between students' social and emotional adjustment, academic achievement and motivation, the influence of teachers. It was seen that the students perceived their relationships with family, peers and teachers as sources of stress or support at school, their psychological health, feelings about their sense of belonging to school and their academic performance. The evidence is supported by the fact that when schools give attention to the non-academic (social and emotional) dimensions of well-being in order to create safe, inclusive and respectful environments, they are simultaneously optimising opportunities for academic success. Of particular relevance for this research was that supportive relationships show a positive direct influence on social and emotional adjustment and a very strong indirect association with academic performance. Thus, interventions should be programmed to enhance the quality of student's lives at school in two manners—to counter the effects of stressful relationships in students' lives and help them in provision of supportive relationships that they would view as vital for their well-being. An important point to remember for teachers and others working with students in school is to place emphasis on relationships that form social and emotional competence. These should be seen both as adding value to the quality of students' lives at school and as important aspect for achievement of successful academic outcomes. Thus, representing schools as 'communities of learners' provides a positive progress as it supports the view that school must play a role in building healthy relationships as well as decreasing stressful relationships for meeting the learners' needs.

The Role of Parental Involvement, Self-efficacy, Intrinsic Motivation and Goal-orientation

Parental involvement is generally referred to as parents' participation in their children's education with the purpose of promoting their academic and social success (Fishel and Ramirez, 2005). Research in the fields of education and psychology has mentioned that parents have significant impact on students' learning and developmental processes. Although, it has been suggested that parents have positive influence on their children's educational outcomes, more specific information is required to understand which parental activities and behaviours contribute to promotion and shaping the development of the educational needs of the wards.

Parental involvement in a child's education is one of the main methods through which children are socialised. There are various dimensions of parental involvement and Epstein (2010) gave six specific types of involvement that promote positive academic experiences for children—parenting, communication, volunteering, learning at home, decision making and connections with the community.

To this date, parental involvement in research with regard to student achievement motivation has been measured through aspects of dimensions like school-to-home communication, parental values and parental involvement in school functions, as well as surveillance of home work and reactions towards grades. Parental involvement has positively impacted students' math proficiency and achievement, reading performance, as well as performance in standardised tests and academic assessments, also fewer behaviour problems in school, better attendance and class preparation, better course completion and lower dropout rates (Simon, 2001). Attending conferences and parent organisation meetings, volunteering and checking homework were positively related to students' academic achievement (Domina, 2005).

Self-efficacy refers to individuals' beliefs in their ability to produce desired results as well as to learn and perform (Bandura, 1997). Individuals' perception of self-efficacy influence many aspects of their lives including their goals, the decisions they make, the amount of effort that is put in accomplishing goals, the types of tasks they choose, the level of perseverance when faced with challenges, the level of stress experienced in demanding situations, the positivity or negativity of thought patterns and their level of vulnerability to depression (Bandura, 1997). In short, levels of efficacy influence how people behave, think, feel and self-motivate. Self-efficacy consistently predicts academic achievement due to its effects on effort and persistence, as students who demonstrate greater

senses of self-efficacy are more likely to put forth the necessary effort and persist longer when facing academic challenges (Schunk and Zimmerman, 2006). Empirical research has shown that children perceived a greater sense of competence when their parents were more involved in their education and school activities.

Intrinsic motivation exists within and drives the spontaneous behaviours of individuals and it has been seen that it is very important for adolescents' cognitive development. Those who have this kind of motivation engages in academic roles due to the enjoyment of the tasks and the desire to learn. Studies have shown that this motivation has a strong relationship with children's achievement, persistence and effort, self-efficacy and achievement motivation (Ryan and Deci, 2000).

There are two sides of parental involvement on intrinsic motivation. According to cognitive evaluation theory, parental involvement can be informational or controlling. The informative part enhances students' intrinsic motivation, for example, children's intrinsic motivation increased when parents received weekly information regarding their children's progress and how to help them at home, and when parents gave encouragement and positive remarks and reactions to the grades their wards received (Ginsburg and Bronstein, 1993).

Goal orientation refers to one's inclination to set goals and make plans for oneself. There exists a strong relationship between self-efficacy and goal orientation. Individuals who perceive themselves to have good self-efficacy, set more challenging goals for themselves and maintain higher levels of commitment to these goals. As the goals are achieved, self-efficacy also increases. On the other hand, perception of inefficacy may impede motivation. Low self-efficacy is often accompanied by fear of failure. Fear of failure means the motivation to avoid failure because of the possibility of experiencing shame or embarrassment. People who have doubt on their abilities, experience high levels of fear of failure and thus, they are less likely to set and work towards their goals. Hence, they have less opportunities to increase their self-efficacy. A study was done by Caraway,Tucker, Reinke and Hall (2003) to assess the relationship between self-efficacy, goal orientation and fear of failure with school engagement for high school students. Results showed that the more confident adolescents are about their general level of competence, the more likely they are to get better grades in school and to be more engaged in various aspects of school. Students who fear failure have a tendency to demonstrate less engagement in school-related tasks.

A school environment that is open, trusting and inviting is conducive in building healthy relationships among children. Building partnerships and fostering effective communication

and interaction between the home and school settings increase the likelihood for academic achievement and promote continuity across settings (Miedel and Reynolds, 1999).

The more confident adolescents are about their general level of competence, the more they are likely to receive better results in school and they are more engaged in various aspects of school—this is vital information. Hence, there should be intervention programmes for enhancing self-efficacy and school engagement. Feedback plays a good role here. The goal of effective feedback, within and beyond education, is to improve performance. Feedback should be both negative and positive. Positive feedback relays information to indicate that a behavior should continue and negative feedback indicates that a behaviour or task was not performed correctly, thus indicating that a change of behaviour is needed to demonstrate successive behaviours toward a goal. One important example of positive feedback is goal-directed feedback (effectively focuses on what went well and what can be done differently in the future to improve without placing a positive or negative value on it). It has been suggested that goal-directed feedback is a powerful way to motivate students to learn skills and behaviours (Hattie and Timperley, 2007). Another notable example of positive feedback is dialogue feedback. Feedback as dialogue means that the student will not only get written feedback information but also has the opportunity to have discussion about that feedback afterwards.

Often schools lack resources for providing the individualised attention to students. Many parents who are both working, cannot spend much time with their children. Hence, it is crucial for parents and families, teachers and school administrators, counselors and mental health professionals and the community at large to work together for facilitating the academic success and psychological well-being of children and adolescents.

Connection with School

School bonding, school climate, teacher support, student engagement— researchers have used these terms over the years to address the concept of school connectedness. School connectedness means the extent to which students feel personally accepted, respected, included and supported by others in the school social environment (Goodenow, 1993).This is seen to be strongly associated with school retention, physical and emotional health, wellbeing and negatively associated with adolescent's involvement in risk-taking behaviour (Bond et al., 2007).Risk-taking behaviour is seen as any action which includes choice, uncertain outcomes and the potential for negative consequences, like alcohol and substance use, and delinquent and violent behaviours like carrying

weapons, damaging property and gang membership. Research has shown a relation between school connectedness and a number of adolescent outcomes like positive association with academic motivation and achievement. Importantly, longitudinal research has shown that students' connectedness is related to reduced risk taking later in adolescence: delayed initiation of cigarette smoking, alcohol and marijuana use, delinquency and violent behaviour (Dornbusch et al., 2001). Factors like enforcement of tolerant disciplinary policies, effective classroom management and supportive and positive student-adult relationships within the school helps with school connectedness. According to social learning theory, positive behaviour results in feelings of self-worth and when there are school programs teaching adolescents which behaviours are positive and the teachers reinforce these positive behaviours, bonding is enhanced and positive actions are continued. Internalisation of pro-social school values like those against violence and substance abuse, can lead to behaviour consistent with such beliefs.

Lack of school engagement among children and adolescents have negative consequences like risk for increased school dropout, substance use, teenage pregnancy and criminal activity (Lochner and Moretti, 2004). School engagement is made of behavioural, affective and cognitive components that influence commitment to learning and successful academic performance. Behaviours like regular class attendance, study behaviours and participation in class discussions are positive aspects of school engagement. Ambient emotions like boredom, anxiety, fear or enthusiasm reflect a student's level of affective engagement in a school-related task.

There are many factors which can enhance engagement in school. One of the most prominent ones is a student's perceived social context (like family support, school environment, neighborhood characteristics) that directly influences the self-system (perceived autonomy, relatedness and competence) which in turn leads to student action.

Programs aimed at achieving better mental and emotional well being and development of students, need active support from the school's administration, as well an integration of all the features of such programs with the school's stated academic goals, for widespread and positive change. Maintaining a climate of increased school connectedness maybe difficult in the context of teacher and administration mobility. Intervention developers have to find homeostasis between the comprehensiveness required for a program to be effective, as well as the likelihood of school and staff acceptance of that program.

Resilience

All students face adversity, if not academic then something else. They can face a range of stressors and anxieties like bullying (Cross et al., 2009). Masten, Best, and Garmezy (1990) stated resilience as the "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances". Thus, it is vital for parents and others in the education system to prepare them to be resilient in such situations.Research has shown that if students can be guided to see intellectual ability as something that can be developed with time and effort, good strategies and guidance from others, then they will be more resilient when they encounter the rigorous learning opportunities that are given to them (Yeager and Dweck, 2012).

There are some ways in which resilience can be taught in classroom context. A teacher can use learner-centered practices, which emphasise individual choice and autonomy. Thus, the teacher becomes a facilitator of student learning rather than the source of all knowledge. A sense of purpose for the students can also be implemented, which is important for students who are at risk for having no vision for the future. They should be given learning activities that are challenging but flexible so that each student can discover ways of participation in meaningful manner which enhances their optimal level of challenge. There is also the opportunity for increasing a student's personal qualities like problem-solving skills and intrinsic motivation. Like, teachers can support and enhance intrinsic motivation by rewarding effort and co-operation and by emphasising on natural interest aspects. Teachers can also combine social and emotional education in classroom activities. Focus is given on enhancing students' self-awareness of their feelings and thoughts as well as increasing social awareness by helping them understand what others are thinking and feeling. Also, classroom activities can incorporate activities which will guide the students in developing relationship skills by learning to co-operate, resisting negative peer pressure and negotiating conflicts (Weissberg and O'Brien, 2004). Thus, creating a positive classroom climate can provide opportunities for the students to produce social skills, respect for individual differences and teamwork when they work in co-operative groups on academic activities that are built with mutual goals and equal status participation for all members of the group.

Physical Education

Most schools have reduced the time allotted for physical education. But, there is a relationship between physical fitness and academic achievement. Children who are fit perform better on attentional tasks that require greater amounts of cognitive control like planning,

abstract problem-solving, working memory, motor control and inhibitory control. Physical activities can help school children to develop social skills, improve mental health and reduce risk-taking behaviors. Physical education is also important for mood state, memory, learning and concentration. A study was done to assess the relationship between physical fitness and academic achievement in middle school students (Bass, Laurson and Coleman, 2013). Results stated that aerobic capacity and muscular endurance had a strong relation with academic achievement.Thus, policy makers must take into notice the importance of physical fitness.

Mindfulness

Interest in the benefits of mindfulness practice has grown rapidly. From its initial applications in medicine, mindfulness training has spread into the fields of psychology, healthcare, neuroscience, business, the military and education. The need for such practice in education is happening due to shifts in education and awareness of students with high test anxiety, increase in behavioural and mental health problems in student. This enhances the goals of education in the present. Students need to learn to stop their mind wandering and regulate attention and emotions, to deal with feelings of frustration and to self-motivate. Also, students gain prosocial dispositions such as empathy and compassion, self-representations, ethical sensitivity, creativity and problem solving skills which would guide them to deal with future challenges of the rapidly changing world, ideally becoming smart, caring and committed citizens (Shapiro et al., 2007).

Mental Health in Schools

Mental health in schools require framing new directions and encouraging a visionary and proactive approach. Teachers would like to facilitate their students' healthy social, cognitive and emotional development and try including parents also. Yet, despite urgent need for relevant programs, they continue to be a supplementary item on a school's agenda. Schools play a critical role to help in the metal health of children. School experiences are important for children's psychological as well as intellectual development. Therefore, education system should concern themselves with children's self-esteem and their social experiences with academic performance.

There are of course legal mandates requiring mental health services for the students diagnosed with special-education needs.

Unmet mental health needs and physical health problems are important barriers to school learning for children and adolescents. Thus, school is an ideal point of entry for delivering universal and preventive services that address a variety of factors affecting children's physical and mental health. Nearly,

18 per cent of school-age children have one or more chronic health conditions and 7% of those have significant functional limitations as a result (Farmer, Clark and Marien, 2003). The main causes of mortality and morbidity such as tobacco use, unhealthy dietary behaviours and inadequate physical activity are often established during childhood and adolescence. School-based health centers represent an important interdisciplinary approach for providing comprehensive physical and mental health care for children and adolescents. Such services have preventive routine, acute care services for students with reproductive health services. They are also involved with prevention-oriented programs, including initiatives that address nutrition, HIV and other sexually transmitted diseases, alcohol and other drugs, violence and conflict resolution (Brown and Bolen, 2008). Routine psychosocial screening is the most critical aspect. Crisis intervention, case management, comprehensive evaluation and treatment with substance abuse treatment services are available. There is also provision of peer support groups, grief counseling, and assistance with classroom behaviour modification. The impact of the services given by school-based health centers can be mentioned in the following (Geierstanger and Amaral, 2005)—

- Reduces obstacles to learning process
- Reduces absenteeism
- Helps students concentrate and maintain healthy relationships with peers, teaches and family
- Improves health and prevents or minimises problems
- Increases student connection with their school
- Enhances students leadership and problem-solving skills and hence, improves the overall school climate
- Helps school meet curricular goals

Non-cognitive Factors

Education is the 'organised and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all activities of life' (Jarvis, 2004). That means, an individual is equipped with traits and skills like critical thinking, social skills, problem-solving skills, creativity, persistence and self-control which provide them the platform to contribute significant to the society and succeed in their social and personal lives. These traits are often called, generically, non-cognitive skills.

But, despite the role of non-cognitive skills in our education and overall quality of lives, education analysis and policy tend to overlook their importance. There is a need for thoughtful and holistic attention and effort from researchers, policymakers and practitioners.

Non-cognitive skills have been broadly defined as representing the

"patterns of thought, feelings and behaviour" (Borghans et al., 2008) of individuals that may continue to develop throughout their lives. Gutman and Schoon have identified eight factors as potential most essential non-cognitive skills of children and young people (Gutman and Schoon, 2013):

- Self-perceptions (an individual's own beliefs about whether or not they can accomplish a task)
- Motivation (the study of why individuals think and behave as they do)
- Perseverance (steadfastness on mastering a skill or completing a task)
- Self-control (the ability to resist short-term impulses in order to prioritise longer-term goals)
- Metacognitive strategies (Strategies are goal-oriented efforts to influence one's own learning behaviors and processes by focusing awareness on thinking and selecting, monitoring and learning methods that are most conducive to learning)
- Social competencies (leadership and social skills)
- Resilience (persistence despite minor setbacks), and coping (wide set of skills which are responses to stress)
- Creativity (production of novel ideas)

Some recommendations have been suggested for the importance of non-cognitive factors in education. These are:

- Accountability practices and policies should be broadened in a manner that incentivises school's and teacher's contribution to the development of non-cognitive skills. Focusing on the holistic development of children should be the main aim of the education policy and this can be implemented by changes in curriculum, teacher preparation and support with other aspects of school's functioning and evaluation systems.
- Student-teacher relationships strongly influence students' academic and psychosocial functioning. Lowered student-teacher ratios are linked with increase of student achievement and competence. Interventions within the school context can influence student-teacher contact and quality through restructuring of time and scheduling, allocation of space and teaching resources, placement policies and work-related to cultural issues, school values and staff support and involvement in decision-making.

Conclusion

Academic achievement, social and emotional competence and physical and mental health are fundamentally connected. Hence, schools are not only there for providing formal education, but also provide a medium for preventing disorders and fostering personal development and well-being in children. Thus, such needs should make the educators, teachers and psychologists cultivate innovative methods to enhance school-based

learning and the social experience connected with it.

Academic socialisation encompasses the variety of parental beliefs and behaviours that influence children's school related development. Parents are considered to be the primary agents of child socialisation. The process by which parents shape a child's behaviour, attitude and social skills as a member of society is known as socialisation. Because success in school setting is valued by society and is viewed as a primary determinant of adult dependence and success, understanding the ways in which parents socialise their children about school requires special emphasis for research.

Family intervention strategies like multiple session parenting workshops on behaviour management and academic support skills, student intervention strategies like after school tutoring and study clubs with development of interpersonal problem solving skills, teacher and staff development on proactive classroom management, interactive teaching and cooperative learning— all these can be designed and developed for the constructive development of a student.

Recently, importance has started increasing in measuring and changing attributes, apart from cognitive ability. These are known as "non-cognitive" qualities which are diverse and collectively facilitate goal-directed effort (like self-growth, grit, etc), healthy social relationships (like emotional intelligence) and sound judgment and decision making (example open-mindedness) and these qualities strongly influence psychological, physical, social, economic and academic aspects (Naemi et al., 2012). Reliable and valid performance tasks that assess academic aptitude (the capacity to acquire new academic skills and knowledge) and academic achievement (previously acquired skills and knowledge) have been present for a long time. These have had significantly shaped the educational policies and practices. Still, measures for non-cognitive abilities are scarce in number. But, these abilities are essential for achievement, both inside and outside classroom. Binet and Simon, the creators of the first valid IQ test "admits of other things than intelligence; to succeed in his studies; one must have qualities which depend especially on attention, will and character" (Binet and Simon, 1916). Many educational programs, aim to cultivate self-growth, grit, emotional intelligence and other personal qualities.

Many teachers lack awareness of children's mental health issues. They lack the necessary knowledge, understanding and skills for addressing the needs of children with mental health problems. Thus, with increased knowledge, training and experience, teachers can improve children's mental health.

School policy makers and practitioners recognise that social, emotional and physical health barriers to learning must be addressed if schools are to function

satisfactorily and children are to perform effectively. The Mental Health Foundation (1999) refers to schools which promote children's and young people's mental well-being as having the key characteristics of a committed senior management team that focuses on creating a climate based on trust, integrity, democracy, equality of opportunity, within which each child is valued, regardless of ability, a culture that values teachers, no-teaching staff and all those involved in the care and supervision of pupils and whole-school policies for important issues such as behaviour and bullying.

Representing the ways in which learning and instruction occur in a school setting to view students and teachers in relationship within a learning community may help in deflecting attention from only asking the question "who is the problem?" (Which focuses only on student deficit or pathology), to discovering answers to "what is the problem?" (which includes consideration of systematic issues).

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Inclusion: Way Forward to Redefine Classrooms

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Abstract

Disabled population form a significant but under represented minority. In the extreme past, this population was ignored and separated from the normal population of the country. With the advent of time, they attracted the focus of policy planners to frame written and planned rights for them. With the growing attention and considerations, Indian government has framed numerous policies and rules for the welfare of disabled population of the country. One of the most favored steps for them is extension of Indian Census survey to eight categories from five. Not only policy planners and framers, every citizen of the country has a sense of belongingness for disabled population. This is the generation, where we not only talk about their requirements but we also provide them all necessary amenities so that they can prosper well in their life. Owing to the growing concern about differently abled population in India, the present paper is an attempt to summarise all domains of this population. This paper discusses the population sector of differently abled with a comparative account of different types of disabilities. It also presents the concept of inclusive education to provide free and compulsory education to each and every child. Further, the paper also has various strategies to redefine a normal classroom to make it more accommodating for special children. Hence, this paper will help teachers and teacher-educators to implement and practice various practices like curricular adaptations, lesson-planning and selection of appropriate teaching-learning material in their classrooms for making inclusion as the universal and approachable concept.

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Introduction

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid".

Albert Einstein

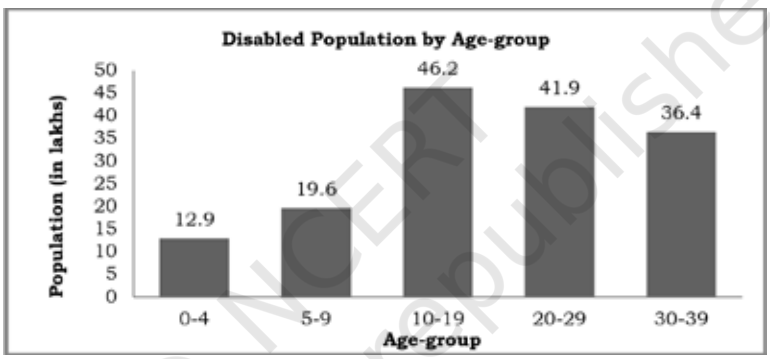
Many of the disadvantaged are hidden from society because a large section of the society shuns them. This social exclusion creates a hypothetical circle of varied and categorical perceptions in human mind which in turn leads to differential treatment and reactions towards them. This differentiating mindset of the society makes them feel more crippled and handicapped than their actual disability. They feel more disabled by experiencing negative reactions up to the level where if they have the ability to perform any task in an extraordinary way, they often feel demotivated to do just because of the reactions of the society.

The term 'differently abled' was coined by the US Democratic National Committee in the early 1980s as a more acceptable term than 'handicapped'. In India, on 7 February 2012, the Chief Commissioner for Person with Disabilities issued a notice banning the use of the term handicapped in all official correspondence, official reports, government institutions and organisations. Consequently the better version of the name i.e. Differently abled is now used to make this population realise their distinct abilities. Differently abled is defined as limitation of a person's ability to carry out the activities of daily living, to the extent that a person may need help in doing so. The American Disabilities Act (1990) defines disability as physical or a mental impairment that substantially limits one or more of life abilities. Such impairment may include physical, sensory and cognitive or intellectual impairments. The WHO defines it as a restriction or lack of ability to perform an activity in the manner or within the range which is considered as normal for a human being. According to the Declaration on the Rights of the Disabled Persons proclaimed by the United Nations Assembly (1975), disabled person is any person unable to ensure by himself, wholly or partially, the necessities of a normal individual and social life, as a result of deficiency, either congenital or not, in his or her physical or mental capabilities.

The broad definition of differently abled people lays focus on considering every person in accordance with their disability. With the growing life-style disorders and other significant factors, the number of differently abled is also growing across the globe. But this growth doesn't match with the established laws, policies and attempts to include them in mainstream society as we have more number of differently abled but not adequate numbers of policies and laws. Though India has one of the most progressive disability frameworks, yet they suffer many challenges in terms of implementation.

Differently abled Population in India

As per the Census 2011, the differently abled population in India is 26.8 million i.e. 2.21per cent. There has been a marginal increase in the differently abled population in India from 21.9 million in 2001 to 26.8 million in 10 years (Census, 2011) . There are 14.9 million men with disabilities as compared to 11.8 million women in the country. The abled population not only varies with respect to gender and demographical settings but it has different and distinct patterns in different states. Different age groups have different prevalence of disabilities with maximum proportion in school going children of age-group 10-19. Graph 1.1 clearly shows that the high rate of disabilities is prevalent in this age-group which calls for an immediate



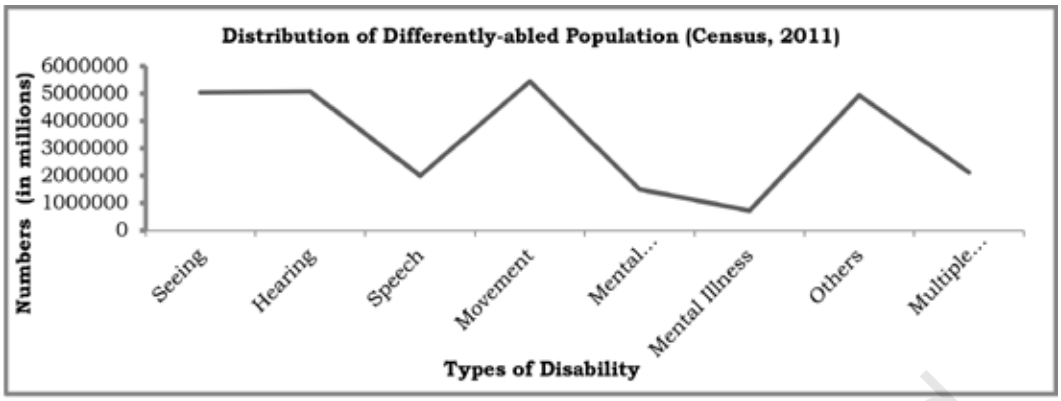
Graph 1.1: Age-wise distribution of differently abled population

Source: Census, 2011, Govt. of India, Ministry of Home Affairs, Office of Registrar General & Census Commissioner, India.

total number of differently abled people is over 18 million in the rural areas and just 8.1 million enumerated in the urban settings. Social groups wise analysis shows, 2.45 per cent of the total disabled population belong to the Scheduled Castes, 2.05 per cent to the Scheduled Tribes and 2.18 per cent to other than SC/ ST. Even among these two social groups, the proportion of men with disabilities is higher as compared to women. The distribution of differently

solution as this is the age of going to schools and having formal education.

With the addition of the new dimensions namely mental retardation, mental illness, any other multiple disability in Census 2011, distribution of Indian population represents maximum number of people suffering from multiple and movement disabilities. School-going children of age-group 10-19 are at the extreme end of disabilities. The representation is given in graph 1.2.



Graph 1.2: Distribution of differently abled (Disability-wise)
Source: Census, 2011, Govt. of India, Ministry of Home Affairs, Office of Registrar General & Census Commissioner, India.

It is vividly revealed from Graph 1.2 that maximum proportion of Indian population is suffering from movement disability followed by hearing disability. Census data 2011 reveals that owing to the increasing number of children suffering from movement and multiple disabilities, 54 per cent of the disabled children with multiple disabilities never attended educational institutions. Also, 50 per cent of the children with mental illness never attended educational institution. This clearly shows the ignored provisions which can be practiced and implemented at school for increasing the enrolment of children with disabilities. Thus, these children who never attended any educational institution because of their disabilities are the domain of concern. The way forward must include a practice which can reduce this number to zero i.e. provision of inclusion in educational settings. Inclusion not only increases the enrolment ratio but will also contribute in sustaining the number in long run. (Census, 2011)

Way forward for Differently abled— Inclusion

Inclusion is a right of each and every child; it is not a privilege for a selected few. It is based on the educational premise that children who learn together, live together. Inclusion in educational settings is a practice to include every child irrespective of their disability, caste, religion, gender and language. It gives opportunity to every child to learn in their own pace and learning style to promote personal, academic and professional development. Inclusion is celebrating diversity and individuality together under the same roof. It is not an 'add-on' facility provided to the students

rather it is a set of mandatory facilities for overall development of all children. The educational pattern based on this concept of inclusion is known as inclusive education.

Inclusive education talks about 4 Ws of educational system; namely Who, What, Why and Where? It involves a team of professionals (who) working on an inclusive and comprehensive curriculum (what) to be taught to the students with the wide variety of methods (why) in a classroom (where). Thus, inclusive education focuses on diverse methodology for diverse learners but in a single classroom. National Curriculum Framework for Teacher Education (NCFTE, 2009) considers inclusive education as philosophical as well as an arrangement of institutional facilities and processes.

Inclusive education is a way of thinking and acting that allows every individual to feel accepted, valued and safe. It is a means of enhancing the well-being of every person in community. It helps individual for meaningful involvement and equal access to the benefits of citizenship through recognition and support. Inclusive education works on certain principles to meet the objectives of all round development, guidance and counseling services, protection of rights, transformation of disability into competence and potential, development of social consciousness, self-confidence and self-concept. Inclusive education provides teachers, administrators and parents a completely revamped setup to deal effectively with their differently abled children. It not only talks about how school or classroom should look like but it also specifies how and what to do inside a classroom to include and consider everyone. There are some teaching-learning practices and infrastructural modifications which redefine the schools and classrooms for all children.

Redefining Schools and Classrooms for Differently abled

Inclusive education in schools works on several accommodations and adaptations. The basic components in any classroom are subject, curriculum and methodology. The modifications done in curriculum are known as curricular adaptations and play an important role in transforming a regular class to an inclusive one. It is a comprehensive process to modify and adapt the existing curriculum in the light of the requirement of the special need children. Curricular adaptations are generally implemented in subject matter, pedagogical methods and teaching-learning materials. It becomes meaningful and effective when adaptations are done in order to satisfy all needs of all children irrespective of their disabilities. Effective adaptations should not hamper normal regular classroom practices rather it should be integrated in regular classroom. Table 1.1 shows some adaptations which can be carried out to make an inclusive classroom.

Table 1.1
Adaptations for differently-abled to redefine classroom

SN	Curricular Adaptations	Lesson-planning	Teaching-learning material
1	Size of content	Use of TLM	Age-appropriate
2	Difficulty level	Principle of engagement	Enhancement of learning skills
3	Time and output	Work on meta-cognition level	Active participation and transfer for training
4	Level of support provided	High interest level books	Use of intellectual, and visual specific TLM
5	Level of participation	Logical connection with the construct/concept	Use of multisensory AV aids

It is evident from table 1.1 that while teaching in an inclusive classroom, teacher should consider each and every aspect of learner's cognitive, mental and physical level. they should practice psychological principles based on individual differences while planning for their lesson or selecting any teaching-learning material. Apart from these curricular adaptations, inclusion also talks about infrastructural modifications which can be applied at institutional as well as individualistic level so that they can equally sustain and live normal life just like the rest of us. These are enlisted below in table 1.2

Table 1.2
Modifications for Differently-abled

SN	Architectural Modifications	Individualistic Adaptations	Educational Awareness
1	Creation of ramps and automatic sliding doors	Assignments in electronic format impaired	Workshops to create sense of empathy
2	Wide doors and broad corridors to render wheel chair movement easy	Audio-taped or Braille text for visually challenged	Manuals and worksheets to spread awareness
3	Braille or Bright light boards with large font alphabets	Essential Adaptive equipments	Encouraging team work to foster equality
4	Audio system installed at lifts, floors and emergency exits	Computers with voice output, spell checkers, specialised software	Creating scales of performance for differently-abled

Thus, all these modifications and adaptations at institutional level can provide an easy access to education for differently abled. Institutions and organisations should try to make their campus disability-friendly as much as they can, so that the maximum proportion of children suffering from disabilities can at least have access to their basic right i.e. right to education.

Conclusion

"Persons with Disabilities are valuable human resource for the country and seek to create an environment that provides equal opportunities and protection of their rights." (National Policy for Persons with Disabilities (2006). This policy has put forward the moral duty of addressing the needs of differently abled people so that they can prosper in their own area of specific abilities. Every citizen of the country needs to contribute in creating an acceptable environment by bringing necessary modifications in different sectors like health, education, employment etc. They should come forward for creating proper and adequate health services at doorstep for them. Teaching fraternity should provide numerous opportunities of getting education as per their interest and ability. In addition, there should be a proper law and order for these people so that they can enjoy their rights and freedom in their occupations as well.

The law must recognise that people with disabilities have diverse needs depending upon the age, severity and the socio-economic conditions in which persons are living. Apart from laws and legislations, the media can also play a pivotal role in transforming the perceptions and in bringing an attitudinal shift in the society by promoting awareness for the rights, education and employment of the differently abled. The society should be dynamic enough to accept all differences with respect for individuality and mutual rights of any differently abled member of the society. There should be a natural tendency to provide equal opportunities and access to disabled people so that they can enjoy their rights and as well contribute to the society.

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Bullying as a Menace among Adolescents

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Abstract

This paper is an attempt to study bullying in its varied forms, the psyche of the bullies, their personality traits, their motives and the other major factors inducing bullying. Nowadays, the term 'bullying' has become a fashionable and describable term commonly used by the school and college goers, parents, teachers and educational administrators most often without perceiving the seriousness and intensity of the problem involved with the term. What most often starts as bullying intensifies in course of time resulting in very serious tendencies resulting in danger to the person cornered. Bullying behaviour is commonly found among adolescents at their secondary and higher secondary level in various forms such as intimidation, mistreatment, oppression, harassment, victimisation, maltreatment, hounding, discrimination etc., and sometimes among the college goers in the form of ragging, stalking, prejudice, dominance etc., In this study, a sample of around 518 students in their adolescence studying at the secondary and higher secondary levels were identified based on their bully behaviour. Students who were being bullied were also identified and taken as samples. Around 64 teachers were met during the process of this study and an unstructured questionnaire was administered to them in order to analyse their adequacy of knowledge regarding the bullying behaviour of students, around 40 per cent of the teachers were found to have adequate knowledge of the bullying behaviour of students. From the study it was observed that on an average around 7 per cent to 10 per cent of students who belong to the peer group— non-achieving, physically dominant individuals involve in serious bully behaviours. The other aspect of this paper concentrates on the one's who are being bullied; from the analysis it was found that around 4.5 per cent to 9 per cent of students who are physically weak, shy natured, children lacking social exposure suffer from bullies. In few cases, the parents

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of the bullies and bullied were also been met by the researcher in order to understand the background of the children involved in bullying. Research studies by Ludwig (2006) indicate the reasons why an individual turns to be a bully citing reasons ranging from family background, sibling behaviour, obsessive tendencies, deviation from normal behaviour etc. Some studies by Smith (2000), Owens, Shute and Slee (2000) indicate mild to severe mental conditions, psychological affects like internal conflict, mental health, parenting styles, personal deviant behaviours as likely causes for why an individual turns to be a bully.

Introduction

Bullying behaviour may be defined as an intentional activity aimed to intimidate, coax, threaten or even groom an individual in order to use them as an object of reception of force, coercion and dominance usually ends up with one individual being a bully, who is always at the powers end dominate and the other individual who is at the receiving end is the one who is bullied and is generally at the sufferers end. Olweus (2001) a pioneer in the research on bullying defined it as, 'a subcategory of interpersonal aggression characterised by intentionality, repetition, and an imbalance of power, with abuse of power being a primary distinction between bullying and other forms of aggression'. A child who is being bullied always have a hard time to defend. The term of being bullied varies based on the forms of intimidation. Some exists a momentary condition for a while, some for days and severe forms may hold itself for days, weeks, months and years. Often, children are bullied not just once or twice but repeatedly (Olweus, 1993; Roland, 1989; Smith & Sharp, 1994). This study is aimed at studying the bullying behaviour among adolescents studying at the secondary and higher secondary levels in selected schools of Chennai, Thiruvallur and Kancheepuram districts.

Rationale of the study

In the recent times there, is an increase in the reports regarding the bullying behaviour among school going adolescents. It can further be noted that widespread incidents including the many forms of bullying behaviour such as intimidation, mistreatment among peers, oppressive behaviour among the dominant children, harassment, victimisation, maltreatment, hounding, discrimination, prejudice, dominance, teasing, grooming, stalking, kidding, coaxing etc., are found to be common among school going adolescents especially at the secondary and higher secondary levels.

The bullying behaviour when left unnoted and uninstructed about the causes turns out to pose serious problems both for the bully and the

bullied. Apart from this bullying behaviour of adolescents over the peers, the other concerns include the extension of this behaviour over their teachers who complain of being bullied, harassed and victimised. Hence, the present study is carried out with a concern to find out the various causal factors of this behaviour, to find remedy and to curb this bullying behaviour at the early stages.

Major aim and objectives of the study

Considering the previous research findings based on the review of related literature from the standard and documentary sources including wide range of newspaper articles it is felt to study the various causes of bullying behaviour and its affect in different contexts. The present study is aimed to investigate the factorial structure of bullying mainly in the schooling, peer relationship and parenting style context. It is intended to study the following—

(i) bullying behaviour among school going adolescents;

(ii) various forms of bullying behaviour among adolescents at the secondary and higher secondary level;

(iii) emotional impact of bullying behaviour on the bullied;

(iv) ways in which this bullying behaviour can be handled effectively and counselled;

Sample

A sample of around 518 students at their adolescence studying at the secondary and higher secondary levels were identified based on their bully behaviour and students who were being bullied were also identified and taken as samples. A thorough sampling identification process was done with the selected schools in Chennai, Thiruvallur and Kancheepuram districts. The samples were chosen from around 22 schools. The samples were stratified based on the bullying behaviour as reported by their teachers. Stratification of the sample was carried out through focus discussion and interview. Multi-stage sampling framework was applied at certain levels of the study with informal interviews being carried out with bullies and the bullied.

Hypotheses of the study

H:1 Bullying behaviour holds emotional impact on the adolescent children studying at the secondary and higher secondary level.

H:2 Bullied adolescent children suffer emotional impact.

H:3 Bullying behaviour when left unnoted and uninstructed turns out to pose serious problems both for the bully and the bullied.

H:4 Bullying behaviour of adolescents affect teachers

Materials and Techniques

Focus group interviews and discussions with the samples and

teachers were done at the primary stages and a representational tool indicative of the bullying behaviour with dimensions namely intimidation (12 items), peer mistreatment (12 items), oppression (9 items), harassment (9 items), discrimination (10 items) and victimisation (10 items) with 62 items were administered to the sample identified and stratified for their bullying behaviour. Subjects rated their response to each item of the bullying behaviour scale on a 4 point scale that ranged from 4 (Always) to 1(Never). Cronbach's alpha was calculated as a function of the number of test items and the average inter-correlation among the items of the tool indicative of the bullying behaviour. The alpha coefficient for the items of the bullying behaviour tool was found to be .641, suggesting that the items have relatively high internal consistency. The validity of the tool was found to be 0.800.

Table 1 represents the sample selection and distribution, wherein around 518 students at their adolescence were selected as samples for the present study. Around 303 students studying at the secondary level and 215 students at the higher secondary level were selected as samples for the present study among which 234 are girls and 284 are boys. Further, 193 students were selected from the rural locality and 325 representing the urban locality were selected. 244 students studying at the government and government aided school were selected and 274 students studying in the private schools.

Data Analysis and statical Interpretations

Table: 1
Sample selection and distribution

Schooling level	**Classes**	**N**	**Gender**		**Locality**		**Type of school**	
			Girls	Boys	Rural	Urban	Govt.	Pvt.
Secondary level	VIII	85	33	52	40	45	45	40
	IX	106	46	60	29	77	55	51
	X	112	72	40	40	72	49	63
Higher Secondary level	XI	125	53	72	45	80	54	71
	XII	90	30	60	40	51	41	49
Total	518	234	284	193	325	244	274	

Table 2
Mean and S.D scores indicative of the bullying behaviour

Sample	Subgroup	N	%	Mean	S.D.	t-value	Level of significance
Gender	Boys	284	54.82	64.12	14.22	6.308**	0.01
	Girls	234	45.17	57.07	11.21		
Type of school	Govt. / Govt. aided	244	47.10	56.59	10.59	11.308**	0.01
	Private	274	52.89	68.70	12.68		
Locality	Rural	193	37.25	49.88	9.51	10.848**	0.01
	Urban	325	62.74	61.201	14.20		
Medium of Instruction	English	317	55.79	55.64	10.63	1.019	N.S
	Tamil	201	44.20	56.73	12.57		
Stream at Higher Secondary Level	Science	97	45.11	52.39	11.99	2.468*	0.05
	Arts	118	54.88	56.66	13.35		
Knowledge of teacher about Bullying	Adequate	29	45.31	52.18	11.80	5.727**	0.01
	Inadequate	35	54.68	58.71	14.03		
Teachers complaining of Bullying	Male	24	37.50	49.52	11.13	9.811**	0.01
	Female	40	62.50	62.31	15.41		
Parental qualification	Graduate level	289	44.20	55.12	11.88	2.587**	0.01
	School level	229	55.79	58.20	15.25		
Parental Monthly income	>20 K	312	60.23	63.37	16.08	8.875**	0.01
	< 20 K	206	39.76	52.21	12.45		

* represents significance at 0.05 level,
** represents significance at 0.01 level
N.S. – Not significant

- Analysis of Table 2 represents the t values of bullying behaviour based on the subgroups of the sample.
- There exists a significant effect for the subgroup of the sample 'gender', , $t(516) = 6.308$, $p < .01$, with boys scores (M = 64.12, SD = 14.22) indicative of bullying behaviour is higher than that of girls (M = 57.07, 11.21).
- Further, results indicate a significant difference among government, government aided school (M = 56.59, SD = 10.59)

when compared with the private schools the t-value being (M = 68.70, SD = 12.68), t(516) = 11.308, p < .01, where private school students show considerably more bullying behaviour when compared to their counterparts.

- Urban students are found to be with more bullying behaviour (M = 61.201, SD = 14.20) when compared with the rural students (M = 49.88, SD = 9.51) the t-value being t(516) = 10.848, p < .01.
- No significant difference was observed between the English and Tamil medium students in their bullying behaviour.
- Students studying in the 'arts' stream (M = 56.66, SD = 13.35) were found to be with more bullying behaviour when compared with the 'science' stream students (M = 52.39, SD = 11.99) at the higher secondary level, t(213) = 2.468, p < .05.
- Teachers with inadequate knowledge about bullying behaviour (M = 58.71, SD = 14.03) report more harassment by the bullies when compared to the teachers who have adequate knowledge (M = 52.18, SD = 11.80) about bullying behaviour, t(62) = 5.727, p < .01.
- Female teachers (M = 62.31, SD = 15.41) have complained more about the bullying of the students when compared with that of the male teachers (M = 49.52, SD = 11.13), t(62) = 9.811, p < .01.
- Children of parents' who have received their education till their graduation (M = 55.12, SD = 11.88) show less bullying behaviour when compared with the children of parents' whose education is at the school level (M = 58.20, SD = 15.25), t(516) = 2.587, p < .01.
- Children of parents' whose monthly earning is greater (M = 63.37, SD = 16.08) show more bullying behaviour than their counterparts (M = 52.21, SD = 12.45), t(516), p < .01.

Table 3
Standard-wise distribution of
Mean and S.D scores indicative of the bullying behaviour

Level of Schooling	Classes	N	%	Mean	S.D	t-value	Level of sig.
Secondary level	VIII (VIII&IX)	85	28.05	54.32	10.38	5.854**	0.01
	IX (IX & X)	106	34.98	64.06	12.61	2.526*	0.01
	X(X & VIII)	112	27.06	59.87	11.83	3.498**	0.01
Higher Secondary level	XI	125	58.13	59.69	13.62	4.477**	0.01
	XII	90	41.96	51.83	11.99		

* represents significance at 0.05 level
** represents significance at 0.01 level
N.S. – Not significant

Analysis of Table 3 indicates the standardwise distribution of mean and standard deviation scores indicative of the bullying behaviour. Comparative t value among the standards VIII and IX, IX and X and X and VIII standards was calculated among the three standards namely VIII, IX and X standards and inference was drawn from the results based on the t-value. With regard to the analysis of bullying behaviour made between the secondary level students the following readings were observed,

- Students studying at the IX standard show more bullying behaviour (M = 64.06, SD = 12.61) than the VIII standard students (M = 54.32, SD = 10.38), t(189), p < .01.
- Students studying at the IX standard show more bullying behaviour (M = 64.06, SD = 12.61) than the X standard students (M = 59.87, SD = 11.83), t(216), p < .05.
- Students studying at the X standard students standard show more bullying behaviour (M = 59.87, SD = 11.83) than the VIII standard students (M = 54.32, SD = 10.38), t(195), p < .01.

With regard to the analysis of bullying behaviour made among the higher secondary level students the following readings were observed:

- Students studying at the XI standard show more bullying behaviour (M = 59.69, SD = 13.62) when compared with the students studying at the XII standard level (M = 51.83, SD = 11.99), t(213), p < 0.1.

Table 4
Inter-correlation among the factors of bullying behaviour

S.No.	Factors	r-value	Level of significance
1	Intimidation	0.184**	0.01
2	Peer mistreatment	0.093*	0.05
3	Oppression	0.080*	0.05
4	Harassment	0.064	N.S
5	Discrimination	0.211**	0.01
6	Victimization	0.173**	0.01

Note: N=518, df=N-2.
* represents significance at 0.05 level
** represents significance at 0.01 level
N.S. – Not significant

Table 4 indicates the inter-correlation among the factors of bullying behaviour of high school and higher secondary level students. The factors of bullying behaviour namely 'intimidation', 'peer mistreatment', 'oppression', 'discrimination' and 'victimisation' show that each of the

factors were strongly correlated with the other factors r(516) = 0.184, 0.093, 0.080, 0.211, 0.173, p < .01. The factor namely 'harassment' does not hold any significant correlation with other factors.

Analytical discussions, interpretations and recommendations

From the data analysis of the present study made with reference to the bullying behaviour of students studying at the high school and higher secondary level it can be interpreted that—

- 12 per cent of the students studying at the high school and higher secondary level were either directly or indirectly involved in bullying, causing problems ranging between mild to serious to their victims.
- Boys are found to involve themselves more in bullying behaviour when compared with that of girls (Menesini, 2017), the reason for this may probably be the time they spend on socialising with their peers and their exposure to different environments like peer friendships, exposure to inappropriate media, misdirection etc. taking into our social context. It may be interpreted that girls have limited scopes of socialisation and the time they spend outside home and school environments are comparatively much lesser than the boys.
- Type of school and locality play a significant role in the bullying behaviour of students, as from the data of the present study it was noted that students studying in the private schools and in few locality based government schools involve in bullying behaviour.
- 19 per cent of the urban students were found to involve in more bullying activities than their rural counterparts, the reason for these may be attributed to their exposure, less monitoring or control by the parents in the busy urban life, their 'mean friendships'.
- Students may be encouraged to be attached with their parents and to be more communicative with their parents. In turn, parents too must be educated of how their interaction could possibly create positive attitude in their children and help stop their bully behaviours.
- In the present study, it was noted that students at the higher secondary level who are studying in the 'arts' stream show comparatively more bullying behaviour when compared with the students studying in the 'science' stream. This may be probably due to the work orientation, subject demands, that keeps the science students busy and they may not find time to get indulged in bullying activities. Proper goal orientation, value education programmes,

study skill orientation may help students who involve in bullying.

- Children of parents' who have received their education till their graduation show less bullying behaviour, this shows that parental awareness towards bullying, timely advices and intervention, monitoring of their children's behaviour play a vital role in lessening the bullying behaviour of their wards.

Teacher awareness towards bullying helps in identifying the bullying behaviour of their students at the right time and knowledge of teachers about the nature and cause of bullying helps the teacher to secure and extend advice, support and intervention to the students who involve in bullying.

Socialisation process including family intervention, enhancing teacher student relationship, enhancing peer interaction is one best way to help prevent bullying.

Conclusion

In the present day context, bullying behaviour among adolescents is a problem of serious concern. Wide reviews carried out in the area chosen for the study show that problems related to bullying are frequently been reported as incidents in school, online environments and among with peer groups. Much of these reviews and the study made in these lines show that a considerable number of bullying behaviour expressed by the students studying at the high school and higher secondary level is on the rise. The major dimension of their bullying behaviour extends from the primary bully behaviours such as kidding, coaxing, teasing, domination and these behaviour after a point of time extends to serious forms of bullying behaviours such as intimidation, mistreatment, oppression, harassment, stalking, victimisation, maltreatment, discrimination etc., Further, from the present study it was noted that teachers complain of frequent harassment by the bullying behaviour of students studying at the higher secondary level. Students may be encouraged to report or to speak out the issues to teachers or to the parent, wherein timely intervention may help prevent bullying. It may be concluded that awareness, reassurance, socialisation, intervention, family involvement and orientation in this area will bring in a positive change in the individuals who get involved in this behaviour.

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Restructuring Internship in Teaching, SEP and School based Practicum

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Abstract

Internship is an integral part of professional preparation of a teacher in making. Internship is an arrangement under which a prospective teacher can acquire first hand experience as a teacher in situations closely resembling his professional responsibilities. Milestones in its development are at Brown University programme in 1909, and the University of Cincinnati in 1919. Internship in teaching as visualised by NCERT in 1963 and 1991 has proved opportunities to develop high level of competence in teacher's work by working full time in the cooperative schools with a wide variety of experiences, and to acquire all necessary skills for the profession. It has three distinct phases viz. pre-internship phase, internship phase and post internship phase. Pre-internship phase may inclued school's observation and training in core teaching compelen cries. During internship phase trainees are to be placed for teaching-practice and involvement in various school activities under some mentors. Post-internship activities may include post-internship seminar and discussion on interns' (trainees') performance and sharing of experiences.

Internship in Teaching

Internship is an integral part of professional preparation of a teacher in making. It includes successful observation — participation in student teaching or equivalent clinical experiences in a school environment. It is planned and coordinated by Teacher Education Institution in cooperation with one or more school systems, under supervision of a university or college supervisor or a practicing school experienced teacher. It consists of wide variety

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of experiences undertaken in one or more schools.

The internship in teaching is to lead teacher trainee to the culminating point in his field experiences comprising both observation and participation. It envisages the student working over continuous period of time with the staff of a school and performing the roles expected of a new ideal teacher.

The Plan and Programme (NCERT, 1963) mentions, "The term internship refers to an arrangement under which a prospective teacher can acquire first hand experience as a teacher in situations closely resembling those in which he would be working upon entering the profession. It is to be so designed as to provide each student with a comprehensive experience similar to actual teaching student and to work full time in the cooperating schools in a block of about eight weeks". Page and Thomas (1977) in the International Dictionary of Education consider internship as "probationary period served by newly qualified teachers. Internship may be in lieu of student teaching, and puts the prospective teacher in professional role."

Milestones in the development of the internship concept are the Brown University Programme which began in 1909, the cooperative programme of the University of Cincinnati and Cincinnati Public Schools in 1919, the expansion of internship programmes during depression years of the 1930s, and the importance provided by private foundations in the late 1950s and throughout the 1960s. In spite of this fairly long historical background however, internship has yet to become a significant factor in the mass production of teachers.

Internship in teaching as visualised in the Plan and Programme (NCERT 1963) for which an alternative terminology "School Experience Programme" (SEP) has also been used by Secondary Teacher Education Curriculum (NCERT, 1991) is to be designed to provide opportunities to develop high level of competence in all aspects of the teacher's work. During this period, the student teachers have to work full time in the cooperative schools. They are to be provided with a wide variety of experiences, designed to develop teaching competency such as working with individual students, guiding students, group practice teaching and evaluating students' progress. This has also to provide trainees ample opportunities to acquaint themselves with the school and community and the usual functions of a school. The duties and responsibilities of the teacher of today take him for beyond the limits of the class work. Classroom teaching skill is not the only requirement of a good and effective teacher. The teacher training colleges also have to provide experiences in the co-curricular activities, effective library service, organisation of physical games and sports, guidance in choice of courses and careers, reporting

students' progress, maintenance of record and registers and even aspects like planning for purchase of equipment and apparatus for the laboratory. All these require training and experience for professional efficiency as a teacher. Internship in teaching has to provide the student-teacher, an opportunity to acquire all necessary skills for the profession.

Internship creates space for a trainee to bring all his theoretical learning pertaining to the art and science of teaching to bear on the concrete realities of the school and classroom situations. It is through internship that a teacher education curriculum could help a trainee-teacher to get insight into the comprehensive nature of the teacher's role and the varieties of skills and competencies required for its reflective teaching. Stated broadly, internship is an attempt not only for providing the first hand experience of teaching to a student teacher, but also for providing an opportunity to perform the 'multiple roles' of a teacher. It may be mentioned in this regard that the Acharya Ramamurti Committee (1990) in its review of the NPE-1986 had observed that an internship model (in teacher education) is firmly based on the primary value of actual field experience in a realistic situation, on the development of teaching skills by practice over a period of time.

The Curriculum Framework for Teacher Education (NCTE, NCERT, 2006) states that the existing concept of internship of teaching or practice teaching needs to be reformulated. Field experiences, internship and school attachment observations and practicals need to be organised in a way that these are useful in evaluating teacher's ability, support socialisation within the profession, stimulates development of teaching skills, provide a protected field for experimentation, allow insights into new perspectives and enhances motivation to continue learning. During observation, field practice and practicals, the student-teachers may learn in variety of ways. These are— by reflecting upon their own teaching practices (introspection), by reading journals, books, magazines, by observing children/ learners, by studying a case, by observing other professionals/ peer at work, by undertaking skill development exercise, by working with hands etc. Internship should focus methodology of school improvement instead of 40 or 50 lessons. There is a need for longer duration school attachment programme (for example 5–6 months) in one year B.Ed. programme (NCERT, 2007), In four-five years integrated courses, the period of internship needs to be spread over a period of four-five years instead of organising it either in 3rd or 4th year.

While planning internship programme in RIEs, the internship

practices and practical practiced in medical, legal, engineering and management profession needs to be studied. In organisation of field activities in the areas of fieldwork with the community, work experience, arts and craft, health and physical education, the focus should be on development of managerial skills, organisational efficiency, leadership abilities, democratic attitudes and creative abilities. During school attachment or internship of teaching, the student-teachers will try to find relationship between theory and practice by practicing, lessons and participation in other activities such as action research, rapport building with the society, maintaining school records participation in cultural programme, sports and athletics, observation, understanding a child, understanding how the child learns and a study of school management.

Organisation of Internship in Teaching Programme

It has three distinct phases with significant activities and programmes—

1. Pre-internship phase (on campus training)
2. Internship phase (school based experiences)
3. Post-internship phase (feed back and evaluation)

Pre-internship (First eight weeks after one year B.Ed. Theory Course)

The Pre-internship programme may be introduced in B.Ed. first year followed by 5–6 months of field experience/internship/school based experiences as recommended by the Report of the Committee to Review the Teacher Education Programme (NCERT, 2007) after the completion of one year theory course. The duration of pre-internship training may be of at least 8 weeks. It may include training in core-teaching competencies. The core training may be introduced in the second year of Four Years integrated programme. It is to be preceded by induction-cum-conceptualisation programme to be organised in the first year of Four Years programme.

Pre-Internship Orientation-cum Training Programme

Before the interns are placed in the cooperating schools for practice-teaching and internship activities, a pre-internship training programme should be organised at least for eight weeks. The planning and organisation of the programme should be done in a democratic way, seeking the help of school teachers, student-teachers and teacher-educators.

The following activities may be taken up under this phase—

- Orientation of college supervisors, cooperating teachers and principals for their supervisory roles and other responsibilities

in the proper implementation of internship programme

- Organisation of Principals conference and co-operating with school teachers after the completion of one year theory course, in the one and half year B.Ed. programme
- Orientation of interns for their field assignments and projects to be completed during internship
- Visits to schools to study the school environment and pupils, to observe teachers at work and various activities of the schools
- Discussion on the observed lessons of regular school teachers
- Training in observation schedule to develop observation skills indicating what, how, when and why to observe and also to write a concise report on observation of lessons during practice-teaching
- Training in core-teaching skills such as—
  - Skills of class management
  - Skills of communication which may include narration, recitation, dramatisation, explanation including illustrating with examples and demonstration
  - Skills of interaction (teacher-pupils acts) which may include questioning and feedback, discussion, problem-solving
  - Skills for use of teaching aids including black board writing
  - Skill of reinforcement and control including positive and negative reinforcement, verbal and non-verbal reinforcement, encouragement, cuing and silence
  - Skill of stimulus variation—
- Training for delivering lessons in simulated conditions
- Organisation of demonstration lessons and holding discussions on them. Orientation on child psychology and teaching-learning process
- Orientation on techniques of motivation and inspiration for learning
- Training in guidance and counseling techniques
- Training in organising various school activities and discussion sessions
- Training and practices in lesson-planning, unit-planning and lesson-notes
- Orientation about the use of facilities available in schools
- Practice in at least one Model of Teaching
- Orientation on various methods of teaching
- Training in preparation of Achievement tests and Diagnostic-tests
- Training in role-play, brain-storming and dramatisation
- Providing related materials to Interns
- Orientation on—

- Textbook analysis
- Remedial teaching
- Formulation of objectives
- Organisation of parent teacher association
- Case study, lab. study and school plant study
- Study of school records, admission, procedure, registers, preparation of result, Fee collection and records
- Organisation of school activities and co-curricular activities
- Class-work and home work
- Preparation of time-table, school-calendar and cumulative records

Every student teacher will study critically the school curriculum, NCF (2005), and make text book analysis and evaluation procedures prevalent in the school. The interns and student teachers are given initial exposure to various key areas of secondary school curriculum and how these interface with elementary school and higher secondary curriculum to contextualise the subject study of the student teacher.

Further the interns are to be oriented and trained for observing children for a given set of hours in specific situations, recording formats, data coding, its analysis and interpretation, for preparation of observational records and report writing; planning for the school contact; self-evaluation, personal growth; understanding the learner, curricular and pedagogic issues and concerns, development of materials and block-teaching, action research study, school management; use of new technological devices; classroom observations, unit plans and reflective journals, peer observation, co-operative learning strategies, situated learning and apprenticeship mode, task analysis and instructional design, competency based teacher education; field-based pedagogies, structured assignments, seminars and conversations, case study methods, cognitive apprenticeship, and professional portfolios.

Internship— School based Experiences (For 3+10+2+1 weeks)

The second phase of internship (after pre-internship of eight weeks) may be started with multi-cultural placement programme of the interns for at least three weeks. They may be placed in schools of varied cultures and habitations e.g. rural, tribal, suburb schools for at least one week duration in each type of schools. They have to observe all the activities, programmes, management system and classroom teaching being conducted by regular school teachers subject wise. They have also to study the learning style of students of various cultures and background. They may even conduct some simple psychological tests (may be intelligent tests and personality tests, on at least five students of each type of students). This may be concluded by preparing critical and reflective reports on each type of

activity and experience which may be evaluated in the third phase of internship i.e. post internship phase.

In the Four Years integrated course, multicultural placement phase may be conducted in the third year for at least three weeks. Other sorted out activities mentioned in the pre-internship phase are also to be conducted in the third year.

School Experience through Multicultural Placement of Student-Teachers (In he First Three Weeks of Pre-Internship Programme)

In order to provide school experience in various cultural backgrounds of the society to the student teachers, the institute identifies suitable number of co-operating urban schools, rural schools and tribal schools. The student teachers are placed in rotation in all the three types of schools. During two weeks of their placement in this placement in these types of schools they are required to conduct certain activities/assignments as follows:

1. Observation of Lessons: The student teachers are required to observe 10 lessons, 5 in each method subjects taught by regular teachers. The basic objective of this activity is to develop the competency among the student teachers the skill of learning teaching. They can note the matching points in the teaching by the regular classroom teacher. At the same time, they can also note the specific weakness or mismatching points in the lesson delivered by the regular class room teacher.

2. Observation of day-to-day School Activities: The student teacher is to be vigilant for all the two weeks to observe various activities and functioning of the school and record their observations in each aspect the working of the school library, co-curricular activities, games and sports. School laboratories, school morning assembly, school hostel and any other important features of the school are to be observed keenly and critically. A comprehensive report of the above activities is to be prepared by the individual student teacher.

3. Availing Substitute Teaching Opportunities: The student-teacher may get arrangement classes during these two weeks when a regular class teacher of the school goes on leave or is busy in other school activities. Even if he does not get appropriate arrangement class, he may conduct or deliver some educative value which can influence the learners. Ask the co operating teacher to avail a substitute teaching opportunity. For teaching in a class, he has to prepare a lesson plan, procure teaching aids and teach the class as well. He has to submit that lesson plan with counter signature of the cooperating teacher in this institute after the school experience programme. While submitting the report, the pupil teacher has to describe the activity conducted and the outcome of the activity in their report. The classroom teaching and school experience programme may be organised for ten

weeks after the completion of three weeks multi cultural programme.

The internship activities should include—

- Pre-placement orientation of interns at least for one week
- Placement of interns in the co operating schools for at least ten weeks keeping in view the sufficient facilities and classes available in various subjects to be taught by interns.
- Organisation of meetings of interns, co operating teachers and principals in the respective schools
- Job and time-table distribution
- Fixing a realistic student and supervisor ratio for effective supervision
- Collaborative supervision by the method masters and the co operating teachers with content background
- Practice teaching (at least 50 lessons in each subject)
- Use of Interaction Analysis
- Regular supervision, evaluation and discussion
- Participation in group discussion by the interns, co-operating teachers and supervisors.
- At least 40 per cent lessons must be supervised by the subject teachers, supervisors, and college supervisor on daily lessons
- Adopting practice of rotator supervision
- Use of objective tools like rating scales and checklists in the supervision
- Preparation of lesson plans and conducting classes on practical skill based lessons
- Practice in at least one models of teaching i.e., advance organiser, inquiry training, and concept attainment models etc.
- Replacement of lesson plans by lesson notes as the number of lessons delivered increases.
- (The lesson notes may include objectives, learning material, and instructional strategy, replacement of fixed pattern of lesson planning)
- Practice on creative teaching, child centered activities and participatory methods of teaching
- Preparation of lesson plans and teaching by using different methods of teaching e.g. project, heuristic, demonstration method etc.
- Designing the unit tests, administering them, evaluating and providing feedback to students by interns
- Adequate practice on learner-centered approach, preparation of progress reports or progress cards
- Use of tape record CCTV for self feedback
- Preparation of various types of tests items, scoring key, and marking scheme

- Interaction with parents (of students) during teacher-parent meet.
- Training in the usage of interview schedules and their analysis
- Organising subject quiz
- Organising subject exhibitions
- Participation in subject-clubs and promoting other school activities
- Observation/Supervision of peers on practice lessons on the observation schedule (at least 30 lessons, 15 in each subject)
- Semi-structured supervision followed by group supervision
- Completion of field-assignment by the interns under the guidance and supervision of the supervisors and co-operating teachers
- Guidance by supervisors in class-management, preparation and use of teaching learning aids
- Conducting class tests on teaching subject
- Sociometric study of the class
- Organisation of co-curricular activities such as games, educational tours, cultural programmes exhibition, discussion on current topics etc., in the school under the supervision of school teachers and supervisors
- Participation in working with community programme after the practice teaching
- Experience in library, laboratory and record maintenance
- Making case studies and preparation of report of atleast two case studies of problem children/ gifted children/retarded children
- Completion of action research related to a specific school problem
- Analysis of textbooks and question papers
- Lab. study and school plant study
- Preparation of school calendar
- Study and preparation of school registers and other documents such as fee book, admission forms and admission register, attendance registers, transfer certificate, stock register etc.
- Assessment of the use of library by the students
- Study of the school environment and its socio cultural fabric
- Periodical review of the progress of each intern for the entire SEP
- Visit to various places of educational significance, such as—
  - Rural craft centres, farms, cottage industries etc.
  - Juvenile courts, remand homes etc.
  - Special schools for the handicapped
  - Visit to historical places, monuments, museums, industrial units and geographical places etc.
  - Organisation of get together of the co operating school teachers, principal and supervisors on the last day of the internship in the respective school

Working with Community Programme (after the Completion of Practice Teaching)

This may be organised for two weeks after the completion of school placement/SEP programme of 10 weeks for community involvement and participation in the management of education. With regard to community mobilisation and participation, a comprehensive and consolidated efforts are to be done. The interns may organise discussion, rallies, poster and banner display, theme based cultural programmes, interview with parents and community members, case study, participant observation of community life, community survey in the field of primary education, adult education, and guidance service to the community, survey of health and hygiene of the community, theme based cultural activities, and plantation.

School Improvement Programme

Apart from teacher training programme, the institutions of teacher education and teacher training colleges should establish rapport with cooperating schools and take step to improve the schools through various activities and programmes of the institutions. The innovations done at the national and state levels are to be shared, the policies in the field of school education, teacher training and teacher education are to be discussed and implemented in collaboration with both. The problems of school education and teacher education are to be sorted out and its solution be sought for the improvement of school system.

Post-internship Activities

These may include —

- Post-internship seminars and discussions on the Interns' performance.
- Evaluation of assignments with the help of rating scales evolved on the basis of the evaluation criteria
- Viva-voice on the internship experiences
- Exhibition of teaching aids prepared by interns.
- Inviting feedback from the principals and teachers of cooperating schools.
- Organising seminars of the supervisory staff to debate on issues related to supervision
- Preparation of brief report by each intern about their experience during internship along with the comments and suggestions for improvement
- Submission of the report of peer-group observation
- Suggestions by interns, school-teachers and supervisors for strengthening internship programme
- Best lesson demonstration be organised
- Issue of letter of thanks to the co operating schools
- Involvement of co-operating schools in the activities of the training colleges and institutes at other occasions also

Internship Programme Schedule

S.No.	Two Year B.Ed. Programme	S.No.	Four Year B.Sc./B.A.B.Ed. Programme
(i)	Induction-cum-conceptualisation of internship (1st two weeks of pre- internship after the completion of one year theory course	(i)	In the first year of 4 year programme (2 weeks)
(ii)	Orientation of teacher educators, supervisors (one week before training in core teaching competency)	(ii)	In the Second Year in the first or second month. (for one week)
(iii)	Campus-based training in Core-Teaching Competencies (eight weeks before the placement of interns in schools)	(iii)	In the Third Year before the placement of interns for field based experiences. (eight weeks)
(iv)	Demonstration lessons in all school subjects (In seventh and eighth week before the placement of interns)		In the Third Year after Core-Training competencies (two weeks)
(v)	Multi-cultural placement before practice teaching (for three weeks)	(v)	In the Fourth year before the placement for practice teaching (for three weeks)
(vi)	Internship including Practice Teaching and School-based Activities including School Improvement Programme after Multicultural Placement (10+2 weeks)	(vi)	In the Fourth year after multicultural placement (8+2 weeks)
(vii)	Working with community (2 weeks after School-based Activities)	(vii)	In the Fourth year (2 weeks) After-based Activities
(viii)	Working with community (2 weeks after School-based Activiies)	(viii)	In the Fourth Year (2 weeks) After School-based activities

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Teacher Educators' Perceptions about Continuing Professional Development

CHANCHAL TYAGI* AND PRADEEP KUMAR MISRA**

Abstract

The present paper aims to study teacher-educators' perceptions about different aspects of Continuing Professional Development (CPD) and also compares their perceptions with respect to teaching experiences and nature of serving institutions. The study was conducted on 97 teacher educators' serving in different aided and self-financed colleges of teacher education institutions and teaching to students of B.Ed. and M.Ed. Data was collected through a questionnaire developed and standardised by the researchers. Findings revealed that for majority of teacher educators, CPD is similar to INSET (In-Service Teacher Education) programmes and different INSET activities like workshop, seminars, and training programmes are main part of their CPD learning and experiences. Majority of the respondents also reported that they cannot practice CPD without institutional and governmental support. Besides, no significant differences were found in teacher educators' perceptions with respect to their teaching experiences and nature of serving institution.

BACKGROUND

Quality of education to a great extent depends on teachers' professional competence and commitment. Lifelong professional development of teachers has all the more become an essential part of their teaching career. As a pre-requisite for their empowerment, it is a lifelong process which starts with their entry in the profession and continues throughout the career (Panda, n.d.). In general context, professional development of a person denotes how he or she

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goes about in his or her profession (Reimers, 2003) and teachers like other professionals are expected to choose the career pathway of life long learning. The research literature has consistently shown that successful educational change and development depends on the Continuing Professional Development (CPD) of teachers (Day, 1999; Hargreaves, 1994). It has been observed to be a key aspect of all the components that are required to advance the quality of teachers. It has been observed that curriculum, pedagogy, teacher's sense of commitment and their relationships with students are all positively influenced by their professional development (Talbert and McLaughlin, 1994).

The term 'Continuing Professional Development' (CPD) was coined by Richard Gardner who was in-charge of professional development for the building professions at York University, in the mid 1970s. As the term CPD does not differentiate between learning from courses, and learning 'on the job', Gardner named it so (Rahman and Borgohain, 2014). CPD is a wider term and a more complex process. It is a lifelong process of teachers' learning and development that begins after joining the profession and continues by the end of teaching career. It aims at acquiring knowledge or specific set skills which enable teachers to deal with some specific new requirements. In view of Padwad and Dixit (2011)—

> CPD is a planned, continuous and lifelong process whereby teachers try to develop their personal and professional qualities, and to improve their knowledge, skills and practice, leading to their empowerment, the improvement of their agency and the development of their organisations and their pupils (p. 10).

As a process of life long learning, in CPD both voluntary teacher initiatives and programmes externally planned and mandated are recognised as professional development practices. And these practices are beneficial not only for the individual and groups but to improve the quality of education as well. Echoing the same intent, Day (1999) gives a comprehensive definition of CPD—

> Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school, which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically— the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people

and colleagues throughout each phase of their teaching lives. (p. 4)

Teacher Educators and CPD

Teacher educators play a key role in improving the quality of teacher education. Teacher educators are role models for many teachers, as from them the teachers acquire different competences, skills and values that they deploy further in their classrooms. Teacher educators not only maintain and improve the quality of the education system through their impact on student teachers and serving teachers but also develop it through their role as developers and mediators of knowledge about education, and as educational innovators (European Commission, 2013). The influence that teacher educators have on student teachers and teachers ensures the high quality and importance of their work (Snoek, Swennen, and Van der Klink, 2011), and suggests that raising teacher educators' quality can lead to wider improvements in education (Buchberger, Campos, Kallos, and Stephenson, 2000; European Commission 2012b). Therefore, continuing professional development of those who educate teachers is a prerequisite for raising the quality of teaching and developing a professional culture among would be teachers. But due to absence of professional learning culture, this expectation could not be fulfilled in India (Rahman and Borgohain, 2014). An important reason for it is the misconceptions held about professional development of teachers, as argued by Bolitho and Padwad (2013):

> The problem begins with the perception about Continuing Professional Development (CPD). Different agencies and stakeholders seem to hold different or narrow views of CPD. It is very common to see CPD equated with in-service training (INSET) programmes, which are normally one-off, isolated, short-term and infrequent training events. (p.7)

Generally, the concept of (CPD) has been ill-defined and is traditionally limited to attendance at courses, conferences and In-Service Teacher Education (INSET) programmes. With the existence of the separate notions of formal training and on-the job learning, professional learning, or "on the job" learning is often seen as separate from CPD (Edmonds and Lee, 2002; Hustler et al, 2003; Robinson and Sebba, 2004). However, the literature reveals several practices of effective CPD which are far removed from the commonly-held perceptions of one-off events. But, these practices are reported at a limited extent in Indian context and mostly, the term CPD is substituted with periodic attempts in terms of INSET programmes. Bolitho and Padwad (2013) illustrated—

> Teaching in India scores very poorly as a profession…Ongoing professional development, i.e. CPD

> can be seen in a very restricted, narrow sense and there are limited opportunities and support for the CPD of serving teachers… The broader notion of CPD as a lifelong process of learning, both formally and informally, based on teachers' conscious initiative and voluntary efforts and supported by schools and authorities is largely missing in Indian teacher education. (p. 7)

In fact, an INSET activity that is planned and delivered by external agencies are just a part of CPD. CPD is more comprehensive than it. But as discussed above, India is still stuck with the restricted notion of professional development i.e. INSET and report of Justice Verma Commission which is the latest policy document of MHRD (2012) on Teacher Education is a glaring example of this. In this report, the term CPD used by NCTE (2009) in the National Curriculum Framework for Teacher Education (NCFTE), is replaced with INSET. It shows that apex authorities in our education system treat both terms as same and interchangeable. But to have such a narrow perception of CPD generates some serious problems in teachers' professional development. This narrow sense excludes all the informal and voluntary contributions of teachers in their professional development, and tends to negatively affect teachers' desire to learn by presenting authorities as the sole provider of CPD. In this notion any possible role of teachers in their own CPD is rejected or ignored, and most probably under the impact of this view, teachers are unable to think beyond INSET programmes and take responsibility for their own development (Padwad and Dixit, 2013).

The other problem is relying on external agencies to plan and deliver CPD teachers have to depend on such avenues for their professional development as may turn out to be irrelevant to their needs and interests. The other major concern related to this issue is that India has vast population of teachers and to provide appropriate and equal provisions for their continuing professional development is a challenging task for the government. This is why a large part of the teaching community remains out of the orbit of government provisions for CPD. Tyagi and Misra (2017) argue that INSET programs are being offered to teachers working in government or government supported institutions but teachers teaching in private sector remain out of its orbit. Even policy documents tend to overlook this issue. NCFTE, a major policy document of teacher education by NCTE has overlooked the issue of CPD of teachers especially teacher educators. In backdrop of all these observations and arguments, present paper explores teacher educators' perception about CPD.

Objectives

1. To study teacher-educators' perceptions about the meaning of CPD, CPD practices, and responsibility for arranging it
2. To compare the perceptions of teacher educators about CPD in terms of their teaching experiences and nature of institution served

Hypotheses

1. Teacher-educators having different teaching experiences do not differ significantly in their perceptions about CPD.
2. Teacher-educators teaching in aided and self-financed colleges of teacher-education do not differ significantly in their perceptions about CPD.

Methodology

The present study was confined to teacher-educators teaching the classes of B.Ed. and M.Ed. in aided and self-financed colleges affiliated to Chaudhary Charan Singh University, Meerut. The data was collected only from five districts namely Saharanpur, Muzzafarnagar, Ghaziabad, Meerut, and Baghpat as these districts share more or less common geographical and cultural characteristics. For sampling purpose, stratified cluster random sampling was used. In the given districts, there were eight aided and 176 self-financed colleges of teacher education among which six aided and (13) self-financed colleges were randomly selected. The sample consisted of 97 teacher educators teaching to B.Ed. and M.Ed. students in the selected colleges. The data was collected with the help of a five point scale (ranging from "Strongly Agree" to "Strongly Disagree") developed and standardised by the researchers. The scale includes 29 items that mainly covers meaning of CPD, major practices of CPD, and who is responsible for creating a professional development environment for teacher educators. In order to ease the analysis and get a conclusion about their agreement with the given statements, "Strongly Agree", and "Agree" categories were merged together and then percentage was calculated for the composited categories as the statements were scaled along a five-point rating scale ranging from "Strongly Agree" to "Strongly Disagree". 't' test was considered as the most appropriate statistical technique to compare the mean score of teacher educators' perceptions about CPD in terms of their teaching experiences and nature of institution served.

Analysis and Results

The summary of teacher-educators responses about meaning of CPD, its practices, and about who is responsible for arranging it, is presented and analysed in Tables 1, 2, and 3. While, comparison of teacher-educators' perception about CPD in terms of the nature of their serving institution and teaching experiences is presented in Table 4 and 5.

Table 1
Teacher-educators' perceptions regarding meaning of CPD

Statement	SA	A	Composite (SA+A)	%
CPD is a careerlong learning process	27	38	65	67.1
CPD is more comprehensive than in-service education	17	31	48	49.5
CPD includes both external and self-initiated efforts by teachers	12	36	48	49.5
CPD includes both formal and informal activities	17	40	57	58.8
CPD is a new term given to in-service education	41	33	74	76.3
CPD means only attending orientation programmes and refresher courses	20	21	41	42.3

Table 1 shows that 67.1 per cent of teacher educators agreed that CPD is a career long learning process. 49.5 per cent of them accepted that it is more comprehensive than in-service education and includes both external and self-initiated efforts by the teachers themselves; and 58.8 per cent agreed that both formal and informal learning activities are the part of CPD. In other side, majority of teacher educators (76.5 per cent) agreed with the statement "CPD is a new term given to in-service education."And for 42.3 per cent teacher educators, CPD is nothing more than attending orientation programmes and refresher courses.

Table 2
Teacher-educators' perceptions regarding CPD practices

Statement	SA	A	Composite (SA+A)	%
Workshops, seminars, conferences and training programmes are kinds of CPD activities	45	34	79	81.4
Conducting action research to solve day to day classroom problems is also a part of CPD	17	36	53	54.6
Discussing with colleagues on educational issues is a CPD activity	22	30	52	53.6
Developing useful course content is a CPD activity	13	37	50	51.6
Conducting researches is also part of CPD activities	13	36	49	50.5

CPD includes involvement in formal studies and getting advanced academic degrees	14	35	49	50.5
Peer observation is very helpful for teacher's CPD	8	38	46	47.4
Becoming a member of professional communities and associations is a part of CPD	11	28	39	40.2
Giving resource lectures is also a part of CPD activities	11	24	35	36.1
Reading books and research papers is not a part of CPD	14	19	33	34.0

Table 2 makes it clear that for 54.6 per cent teacher-educators, action research was a CPD practice and for 53.6 per cent, it was to have educational discussions with colleagues. 51.6 per cent teacher educators agreed that developing course material was also a part of CPD and involvement in researchers and formal studies for getting further academic degrees appeared a professional development activity to 50.5 per cent of them. 47.4 per cent and 40.2 per cent teacher-educators accepted peer observation and membership of professional communities/associations respectively as CPD activities. Giving resource lectures was the least (36.1 per cent) accepted CPD practice and majority of teacher-educators (81.4 per cent) agreed that workshops, seminars, conferences and training programmes are the most popular practices of professional development. Besides, 34 per cent teacher-educators were of the view that reading books and research papers is not a professional development activity.

Table 3

Teacher-educators' perceptions regarding responsibility for arranging CPD

Statement	SA	A	Composite (SA+A)	%
Government agencies are the sole providers of CPD for teachers	20	24	44	45.4
Institution of a teacher is also responsible for their CPD	16	41	57	58.8
Teachers cannot practice CPD without institutional support	32	28	60	61.9
Teachers and Government agencies both are equally responsible for CPD activities	15	41	56	57.7
Teachers cannot practice CPD if government fails to provide appropriate opportunities	25	27	52	53.6

As shown in Table 3, 57.7 per cent teacher-educators agreed that teachers and government are equally responsible for CPD and 58.8 per cent accepted that their teaching institution is also responsible for it. On a different note, a majority of teacher educators (61.9 per cent and 53.6 per cent respectively) accepted that they cannot practice CPD without institutional and governmental support. 45.4 per cent teacher educators were of the opinion that only government can make provisions for their CPD.

Findings revealed no significant mean difference between perceptions about CPD of teacher-educators teaching in aided and self-financed colleges. Teacher-educators teaching in aided colleges have a slightly higher mean score (66.41) in comparison to teacher-educators of self-financed colleges (64.47).

Findings reveal that there is no significant mean difference between perceptions about CPD of teacher-educators by their teaching experience and the teacher educators having more teaching experience have almost similar perceptions about CPD as of those having lesser teaching experience.

Table 4
Mean score comparison of teacher-educators' perceptions about CPD in terms of nature of institution served

Nature of Institution	N	Mean	Standard Deviation	Standard Error of Mean Difference	t-value	Level of Significance
Aided	37	66.41	12.06	2.66	.73	.05
Self-finance	60	64.47	13.69			

Table value with df (95) at .05= 1.98
Calculated value = .73 < 1.98

Table 5
Mean score comparison of teacher-educators' perceptions about CPD in terms of their teaching experiences

Teaching Experience	N	Mean	Standard Deviation	Standard Error of Mean Difference	t-value	Level of Significance
10 and more than 10 years	48	67.63	11.60	2.62	1.82	.05
Less than 10 years	49	62.86	14.10			

Table value with df (95) at .05= 1.98
Calculated value = 1.82< 1.98

Discussion

On the basis of above presented analysis and results, it can be concluded that although teacher educators perceive CPD as a continuous and comprehensive process, but seem unable to differentiate between the terms CPD and in-service and see both from similar perspectives. There are a considerable percentage of teacher-educators who think that CPD means to attend INSET activities like orientation programmes, refresher courses, conferences, and training courses etc. This finding is similar to that of Bolitho and Padwad (2013), "Teachers too, seem to perceive CPD in terms of formal INSET programmes designed and delivered by external agencies" (p.7). INSET activities like workshops, seminars, conferences and training programmes emerged as most accepted CPD practices, while, peer observation, membership of professional communities, and giving resource lectures and termed as least accepted CPD practices. Other activities of professional development like conducting researches, action research, getting advanced formal studies, group discussion, and developing course content have also been accepted but fared nowhere in comparison to INSET practices. Majority of teacher-educators seem to believe that they are responsible for their CPD but only to the extent of showing willingness to do these things. Findings also revealed that teacher educators feel unable to practice CPD in the absence of governmental and institutional support (similar finding was reported by Padwad and Dixit, 2013). The most probable reason for such an inability may be different challenges before teacher educators such as lack of time (Smith, 2003; Van der Klink, Kools, Avissar, White and Sakata, 2017) and financial issues.

Conclusion

This is an irony that little attention has been paid to the profession of teacher-educators and empirical evidences directly concerned with their professional learning is hardly available (Murray and Harrison, 2008). This research has attempted to void this gap. The findings lead us to conclude that culture of professional development among teacher-educators in India is in developing phase and requires special attention and efforts to develop it further. To be cautious against over generalising the findings of the study, as the study covers a small sample of the overall context, there is need for further extensive researches into teacher-educators' perceptions about participation in CPD activities. More exhaustive data will help in presenting a comprehensive and clear picture about how teacher educators perceive CPD and will help in validation of the findings of present study. Although, obtained findings helped to suggest following measures to improve continuing professional development programmes and practices targeted to teacher-educators—

- Teacher-educators need to be made aware about CPD and those teacher-educators who are well aware of CPD policies and practices must come forward and take initiatives to develop a clear understanding of CPD among the community of teacher-educators.
- The policy makers should change their approach and try to offer continuing professional development programmes as part of 'life-long useful learning' rather than organising these as one-off, isolated, short-term training events.
- Organisation of different interactive sessions during any type of professional development programmes will be helpful to make teacher-educators more informed and skilled to face real teaching-learning situations.
- Considering that professional development activities which form a large part of CPD are unrecognised and practicing teachers hardly get any incentive for them, developing a national online platform for recognising and rewarding these activities will be helpful. The teacher-educators may be invited to register and upload their initiatives on this platform, and some of the best initiatives among these can be rewarded to motivate others.

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An Analysis of the Activity of Science Textbook with Reference to Science Process Skills

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Abstract

Science has taken a very important place in this modern era when democratic societies are demanding science education for the upcoming generations. To fulfill the needs of the nation and society, NCERT has been continuously updating the curriculum of school education by modifying the patterns from subject centered to child and activity centered. National Curriculum Framework is also trying to prepare curriculum and textbooks according to students' needs and interests. In the textbooks, sufficient activities are provided to connect science with daily life. Keeping in mind the above points, this study is conducted to analyse the nature and effectiveness of the activities, given in NCERT's 9th grade science textbooks. The study also focuses on analysing how the science process skills have been incorporated within these activities. Purposive sampling technique is used for selecting the sample chapters. The study reveals that the activities contain basic science process skills in a representative way and that most of the activities are given in an operant form while some activities are supplemented by non-operant form. The researcher did not find a single activity which is totally in non-operant form. The presentation of each activity is simple and all the processes are explained step by step. However, the figures and charts given in these textbooks are blurred and not clear.

Introduction

"Education is the development of all those capacities in the individual which will enable him to control his environment and fulfill his possibilities"— John Dewey.

Education has the power to lift us from darkness and ignorance to

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wisdom. The process of education starts from birth and ends with death. We learn something from each and every moment of life, which teaches us different chapters of human life. A child is born with a sense of curiosity. This curiosity motivates them to learn something new and understand different aspects of life. Education, nowadays, focuses on the all-round development of the child. Therefore, it provides empirical knowledge which is totally based on child centered activities and gives more emphasis on science education.

Science mainly focuses on systematic and organised knowledge. It studies natural phenomenon and determines the causes behind them. Science is a systematic effort to discover and increase human understanding of how the physical world works. Science is a body of knowledge in the form of testable explanations and predictions, about the universe. Science contains values that are democratic in nature. Learning science is becoming increasingly important with time in order to live a quality life in modern society. Science is a cumulative and endless series of empirical observation which results in the formation of concepts and theories, with both concepts and theories being subject to modifications in the light of further empirical observations. Science is both a body of knowledge and the process of acquiring it. Concisely, we can say that science can be identified as-

- An accumulated and systematised body of knowledge
- A method of scientific inquiry
- A scientific attitude

The first point may be referred to as the product aspect and the remaining two points as the process aspect. "Science education is especially important at the secondary stage as it is the major instrument of social change and transformation" (National Policy of Education, 1986). The underlying assumption is that science education can initiate social change by bringing about changes in the outlook and attitude of people as it is a subject that is directly connected with enlightenment values such as reasoning, logic and rationality.

"Now, subject matter of science takes a central place in school education. The most widely acclaimed views of teaching science in schools are that it can inculcate in children. certain values, attitudes, scientific temper, rationality, reasoning, problem solving, methods of science and so on, that are essential for an enlightened citizenship. Also, teaching science in schools can fasten progress and development of a nation by creating scientific and technological manpower essential for continued economic growth" (Senem, 2013).

"Textbooks are effective and commonly used educational tools, to give information to students and teachers as well as determine subjects at students' level. At present, science textbooks are more focused on activity and relate content with daily life experiences of the students and this approach helps in understanding the natural phenomenon" (Erten,2015).

In India, the kind of inquiries and activities that happens in school classrooms is more often scripted by textbooks, syllabuses and teachers' handbooks, developed in accordance with the guidelines set by a centrally written curriculum. Science teachers are trained to follow these predetermined scripts and procedures. The actual science classroom processes get confined to and are dependent on, the content of the textbooks and the specific timeframe allotted to them by these curriculum and syllabuses.

Activities should be provided in the science textbooks to correlate content with students' daily life and by which students can understand the natural phenomenon. Activities should also encourage students to do experiments and learn about the world by themselves.

Science is about asking questions and finding answers to them through scientific methods and inquiries. The processes that scientists use for these are termed as "Science Process Skills", which has been popularised in 1967 by the science curriculum project of American Association for the Advancement of Science (AAAS) and Science-A Process Approach (S-APA).

S-APA is the first program that focused on process skills that scientists use to solve problems. These process skills are explained as a set of broadly transferable abilities, appropriate to many science disciplines and reflective of the true behaviour of scientists (NCF, 2005).

Science Process Skills are defined as the understanding of methods and procedures of scientific investigation (NCERT, 2011)."Science Process Skills have been defined as a set of intellectual skills that are associated with acquiring reliable information about nature" (Singh, 2014). This study focuses specifically on six Science Process Skills, namely, observing, classifying, measuring, inferring, predicting and communicating.

Aktamis (2008) conducted a study to investigate the effect of teaching Science Process Skills to students to promote their scientific creativity and attitudes towards science and enhance achievements in science. Research shows that Science Process Skills increases the students' achievements and scientific creativity. However, no meaningful progress was made in their attitude towards science in comparison to the teacher-centered method. Rao, (2013) found that the organisation of the content and the weight age given to the content, examples and illustrations is logical and cover the objectives of a science curriculum.

Singh (2014) highlights the importance of Science Process Skills in the science curriculum and suggested different teaching strategies which will enhance scientific attitudes in students and foster Science Process Skills among them. Lewis (2012) analysed science textbooks, in which he categorised

the contents and activities on the basis of inquiry included in them.

Erten (2015) analyses the viewpoints of teachers towards inquiry and the focus in science curriculums on scientific attitude. Aydm (2013) suggests that the representation of Science Process Skills in chemistry courses should increase. Bansal (2014) analysed middle grade science textbooks for their potential to promote scientific enquiry, in which they used the 5E model of enquiry for activity analysis.

NCF (2005) stated aim of science education is to acquire the skills and understand the methods and processes that leads to generation and validation of scientific knowledge. NCF (2005) focuses on developing the different processing skills to understand the scientific processes.

Various studies have been conducted regarding different aspects of textbook but the researcher did not find any research work related to the evaluation or analysis of activities for developing process skills.

So, there is a need for such a study which analyses the nature, organisation and presentation of activities in science textbooks, analyses these activities with reference to Science Process Skills and analyses the operant and non-operant forms of these activities.

For these above purposes, present study is conducted.

Statement of the problem of the study

An analysis of the activities presented in science textbooks with reference to Science Process Skills.

Objectives

Specifically, the study addresses the following research objectives—

1. To analyse the nature and presentation of activities in science textbooks.
2. To identify and analyse the operant and the non-operant activities given in science textbooks

Methodology

This study is qualitative in nature; the method adopted for this study is content analysis. Content analysis is a research technique that helps to analyse the actual content and its features, which may be word, activity, concept, theme, phrase, text, character, sentence, cultural products or non-living data form, and tries to present the content in an objective and quantitative manner. In content analysis, the data exist independently and the researcher does not modify anything in it, hence it follows the 'naturalistic paradigm'.

In the present study, activities are analysed on the basis of operant and non-operant activities. Operant activities are those in which students perform activities and find the results accordingly, while in a non-operant activity, students do not actually perform activities but all the

processes and results are explained thus "if you do this, that will happen and this phenomenon will be behind this".

The current study focuses on revealing to what extent Science Process Skills are included in science textbooks. This method helps to identify the frequency of operant and non-operant activities including different Science Process Skills in the 9th grade science textbooks, published by NCERT. The sample selected for the present study is the science textbook of NCERT for grade 9th which consists of 15 chapters. As sample for this study, all the following chapters related to chemistry are considered—

1. Matter in Our Surrounding
2. Is Matter Around us Pure?
3. Atoms and Molecules
4. Structure of the Atom

In one of the criteria, activities are categorised into operant and non-operant forms while another criterion uses a self-developed checklist consisting of six major Science Process Skills encoded with tally mark. The Science Process Skills included in checklist are as follows—

1. Observing
2. Measuring
3. Inferring
4. Classifying
5. Predicting
6. Communicating

For analysing the nature and presentation of activities in textbooks, the researcher identified themes such as— nature of activities and the way in which they are presented, organisation of activities and group and individual activities. Science activities checklist is used to analyse the activities, and the reliability of the science activities checklist is checked by using Cohen's Kappa method. Reliability of the tool is .83.

Results and discussion

Results and discussion are presented according to the research objectives.

Nature and presentation of activities

The activities which are given in the textbook are not up to the mark according to NCF 2005. No extra efforts have been done to make it appealing, attractive and clear. Images are given mostly in black and white. So, it is difficult to differentiate the things which are shown in the picture (in activity1.12, two figures are shown in which two beakers are half filled with water and ice respectively but it is hard to identify which beaker contains ice and which contains water). It was also found that all the activities only help in understanding the contents which are provided in the textbooks and activities are focused only on the contents. There is a need to give more examples and suggest more similar activities, so that the students will be able to apply the content knowledge in their daily life.

The nature of activities primarily included a range of examples from our surroundings, like food, water, salt, sugar etc. which tries to relate science to real life situations (chapter 1 is 'Matter in Our Surrounding' and

chapter 2 is 'Matter Around us Pure'). Most of the activities are mainly based on daily life scientific phenomenon which promote students to involve actively in activities for understanding the surroundings. Students perform the activities by themselves, which gives answer to the raised questions. This approach provides learners an intrinsic motivation to engage with the discipline, hence making science an internalised process.

There are science-based experiments but often they lack rigorous scientific investigations, i.e., activities teach students to perform activities systematically and in organised way but they need not to focus on precise measurement and observation, like taking precise ratio of water, potassium permanganate, temperature control, and observe changes in liquid precisely. Interpretations of experiments are mostly based on observation of the learner. Some activities are organised in such a way that what a student would have observed is pre-stated, which thus restricts pupil's involvement in the process. As evident in activity 2.1, these types of experiments often make children hesitate in questioning and expressing their views. Since, these activities explain all the concepts through providing all observation, the students are bound into giving fixed responses.

It is also important to consider how activities are organised to develop social, cooperative and collegial attitude in the students. Researcher found that the presentation of activities also helps in developing social and cooperative attitude among learners. Some of the activities depend on teachers, how they conduct these activities— as individual learner or by including the whole class in the activities. In some activities, focus has been on performing activities individually, as well as performing outside the school. These cater to the needs of individuals and help them to understand the processes of science. Further, several activities are performed at individual level outside the classroom and several other activities inside the classroom. In the later activities, inside the classroom are performed by few students with teacher as facilitator while rest of the students are passive observer or all the students inside the classroom involve together and perform the activities. Some activities are performed in groups. As shown in table 1, individual activities are more than the group activities, which indicate the pace and ability of individual student.

Table 1

Activity performed with whom?	Total activities (percentage)
Individual activity	11 (39.28%)
Group activities	4 (14.28%)

Learner to whole class	7 (25%)
Learner individually outside the class, at home	6 (21.42%)

At the end of every chapter a fun activity is given, which are mainly group activity. These fun-based activities are optional in terms of content coverage, which welcomes the learner to experience science and mess around with things to develop familiarity with the ways in which natural and physical world work.

Box -1

Group Activity- Take an earthen pot (mutka), some pebbles and sand. Design a small-scale filtration plant that you could use to clean muddy water.

Furthermore, the activities are organised around process skills and content and activities are evolved through acquisition of process skills.

Second objective of this work is to identify the operant and non-operant activities given in science textbook. Following tables presenting the details of operant and non-operant activities given in science textbook.

As shown in table 2, all the activities presented in the chapters are either only in operant form or in both operant and non-operant form. Not a single activity is presented which is only in non-operant form. Activities presented in the operant form allow students space for imagination and innovation for performing these activities while also giving some tentative directions to guide students in performing these activities. Activities presented in both the operant and non-operant form gives the students opportunity to solve the problems themselves while some activities, give the total solution to the problem and discuss the reason found for this particular result.

To illustrate how activities are categorised into operant and non-operant form, the researcher presents below in box-2 one example each from the operant and non-operant category—

Table 2
Operant and Non-operant Activities given in Science Textbook

Chapter	Total no. of activities	Operant activities	Non-operant activities	Both (operant and non-operant)
Chapter -1	14	9	0	5
Chapter -2	10	3	0	7
Chapter -3	2	0	0	2
Chapter -4	2	1	0	1
Total	28	13	0	15

Box-2

Activity No: 1.9, from Chapter-1

- Collect the following articles a pen, a book, a needle and a piece of wooden stick.
- Sketch the shape of the above articles in your notebook by moving a pencil around them.
- Do all these have a definite shape, distinct boundaries and a fixed volume?
- What happen if they are hammered, pulled or dropped?
- Are these capable of diffusing into each other?

Activity shown in box-2 is an operant activity (i.e., their language and structure are likely to ensure that students actually perform and search for the solution to the problems). It includes all the major science process skills— observing, measuring, classifying, inferring, predicting and communicating. In operant activity, the child performs the activity and answers all questions. This activity may be performed in the classroom or out of classroom; teacher may or may not be present during these activities.

Box-3

Activity- 2.1, from Chapter -2

- Let us divide the class into groups A, B, C and D.
- Group A take a beaker containing 50 ml of water and one spatula of copper sulphate powder. Group B take 50 ml of water and two spatulas full of copper sulphate powder in a beaker.
- Group C and D can take different amounts of copper sulphate and potassium permanganate or common salt (sodium chloride) and mix the given components to form a mixture.
- Report the observation on the uniformity in color and texture.
- Group A and B have obtained a mixture which has a uniform composition throughout, such mixtures are called homogeneous mixture or solution, and some other examples of such mixture are: (i) salt in water (ii) sugar in water. Compare the color of the solution of the two groups, both the group have copper sulptate solution but the intensity of color of solution is different. This shows that a homogeneous mixture can have a variable composition.

Activity given in box-3 cannot be categorised as either operant or non-operant activity since it contains both operant and non-operant forms. In this activity observation, measuring and communication are in operant form i.e. students observe, measure and discuss the result with other students while performing the activity. Categorisation, inferring and prediction are in non-operant form i.e. not only are the process and the results given in activity but the chemical compound is also categorised. In this group activity, all the students will participate in the activity while the teacher will give

instructions, explain the process and products and give further examples for better understanding.

A comparative analysis of the frequency of the different skills in all the four chapters is given below in Table 3.

In this table, the researchers compare how Science Process Skills are presented in each of the chapters, highlighting those skills which are more focused and those which are less emphasised.

Total frequency in operant category – 149 (total 183)

Total frequency in non-operant category- 34 (total 183)

Table 3

Frequencies of Different Skills in all four Chapters

Science process skills		Chapter-1	Chapter-2	Chapter-3	Chapter-4	Total (%)
Observing	Operant	16	10	1	2	29 (69.04%)
	Non-operant	5	5	2	1	13 (30.95%)
Measuring	Operant	18	6	4	0	28 (82.35%)
	Non-operant	0	4	2	0	6 (17.64%)
Inferring	Operant	19	8	3	1	31 (79.48%)
	Non-operant	0	8	0	0	8 (20.51%)
Classifying	Operant	21	8	0	0	29 (93.54%)
	Non-operant	0	2	0	0	2 (6.45%)
Predicting	Operant	7	3	1	0	11 (91.66%)
	Non-operant	0	1	0	0	1 (8.33%)
Communicating	Operant	9	9	2	1	21 (84%)
	Non-operant	0	4	0	0	4 (16%)

Presentation of Science Process Skills in activities of science textbook

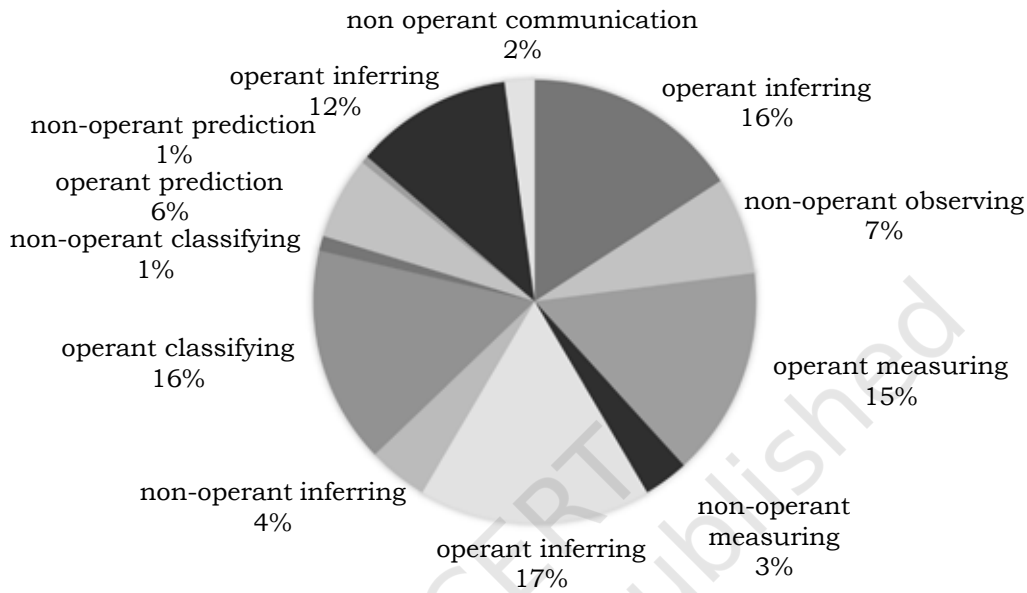

Figure -1

Chapter wise Discussion

In chapter 1, it appears in totality that skills in operant category outnumbered those in non-operant category. Observation and classification skills are more focused. Inferring and measuring skills are also emphasised while predicting and communicating skills are less focused. Here, students perform the experiments independently and find the answers of the problems themselves. In the non-operant category, only observing skills are emphasised while other skills are ignored. This is indicated in some activities where figure, pictures and charts are given, which direct the students to arrange the equipment as shown in picture for performing the activities.

In chapter 2, skills in operant category outnumbered those in non-operant category. Observation, communicating and inferring skills are more focused. Classifying and measuring skills are also emphasised, while predicting skills are less focused. Thus, here fewer opportunities are provided for the prediction about the facts of experiment. In the non-operant category, observing and inferring skills are emphasised and other skills are also present in this chapter. Pictures, process, reason and results are given in the activities. Student arranges equipments as

suggested and only confirms the findings by performing the activities.

In chapter 3, skills in operant category outnumbered those in non-operant category, Observation, measuring and inferring skills are more focused while predicting and communicating skills are less focused. Here, students performed the experiments in independent way, and found the answers of the problems themselves. In the non-operant category, observing and measuring skills are emphasised but other skills are absent. This is indicating where in some activities figures, pictures and charts are given to help the students to arrange the equipment as shown in the picture for performing the activities.

In chapter 4, overall it appears that skills in operant category outnumbered those in non-operant category. Observing skills are more focused, while inferring and communicating skills are less focused. Here, students perform the experiments in an independent way and search the answers of the problems themselves. In the non-operant category, only observing skills are emphasised, and other skills are absent. This is indicated in some activities where figure, pictures and charts are given, which helps students to arrange the equipment for performing the activity.

Conclusion

It is a well-known fact that students learn better by active participation and learning by doing. Learning by process approach offers excitement and enthusiasm for learning and motivates learners to value and pursue life-long learning. Science Process Skills help students to think critically about an idea or subject and solve problems. These skills in turn build deduction skills that can be used to learn science beyond the science classroom.

This study reveals that the science textbooks prescribed by NCERT on the whole have a good presentation of activities.

These activities contain basic Science Process Skills in a representative way with more emphasis on observing skills in both operant and non-operant activities. This ensures students use their sense organs to watch, tastes, touch, hear and smell during performance of these activities. Skills like inferring, measuring and classifying have higher scope in the operant activities and less scope in the non-operant activities.

Communications skills are not emphasised as much as other skills like observing and measuring are. Consequently, students have less opportunity to discuss the phenomenon and results with other students.

Predicting skills are very less in numbers and less in scope which indicates students do not have appropriate chance to predict the result or to imagine the world in an abstract way.

As shown in figure1, overall, the inferring skills in operant form are

emphasised more in all the chapters, followed by observing, measuring and classifying skills.

Study also reveals that almost all the activities given in operant forms are supplemented by non-operant form. Researchers did not find a single activity which is only in non-operant form thus, ensuring students actively participate in searching the answers for problems and in understanding the process.

The language of activity is simple and all processes are explained in step by step manner but the figures and charts given in the textbooks are blurry and not clear.

Chapters 1 and 2 contain satisfactorily sufficient number of activities covering all the Science Process Skills in which observing, inferring, measuring and classifying Skills are widely used.

The activities given in chapter 4 are less in number and less comprehensive, mainly focused on observing skills. They are less focused on the application of learnt concepts and principals of science in unknown situation and do not encourage divergent and reflective thinking among the students.

Activities give less chances for prediction and communication i.e. students are not encouraged to discuss with friends and peer group.

Activities are given for both at individual level and in group in order to cater the need of the diversity among students.

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Education for Citizenship in Democracy

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Abstract

Democratic system of governance is considered as the best system available for managing conflicts without having to recourse to cruel means and violence. In order to make democracy live long, we must progress in two directions. Firstly, people's approach towards violence must undergo a transformation and there should be scope for training of peaceful reconciliation of differences. Secondly, people's participation in democracy should be healthy and based on notion of justice. As democracy provides scope for participation to all and people can have their share in governance. For this, education should be life-oriented. Education for future citizens in democracy offers a lasting solution to these problems. Here, knowledge of theoretical aspect should be merged with practice and right conduct. The people at large should come to realise the significance of education for future citizens in democracy. The present study is looking into the research question of the perceptions of school teachers towards the role course content, transactional strategies, co-curricular activities, textbooks, evaluation procedures and the school environment in developing education for citizenship in democracy in relation to gender? To find the answer to the question exploratory research method is undertaken in the exploration of teachers' perception. The tool comprises perception scale and semi- structured interviews with the teachers. In the last part of the article, detailed research findings is discussed which signify that teachers have positive perception towards education for citizenship in democracy.

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Research Problem

Education for citizenship in democracy— an exploratory study of perception of school teachers

Rationale of the Proposed Study

Education for future citizens in democracy provides strong foundations of character building. It also helps in offering a lasting solution to problems confronting a democracy like violence, corruption, terrorism etc. The knowledge of theoretical aspect should be merged with practice and right conduct. The people at large should come to realise the significance of education for future citizens in democracy. Marsialas (1975) citied a number of studies from various regions of the world concluding that positive political socialisation outcomes were associated with students classroom inquiry into social issues. Meier (2009) calls for schools to provide students real opportunities to contribute to communities, and to help them form relationships, exchange ideas, and use a range of strategies to bring change, some having little to do with government. Once school environment fosters equality and equity in its approach, then the teacher can be asked to replicate the ideals of democracy into the classroom practices. Initiative on education for democracy depends on the ideals, motivation, awareness and skills of teachers in order to make it a real success. As teachers are fairly responsible for inculcating tradition of democracy in a student's life, they should themselves be able to cherish the ideals of democracy.

In the year 2000, Silverman analysed the teacher beliefs and practices through a grounded theory approach. Deucher (2003) argued that citizenship as an ideal had been embraced as a priority by some schools, but others had yet to develop strategic plans to ensure that their pupils would become active and responsible citizens. Westheime and Kahne (2004) argued that is emphasis placed on individual character and behaviour. During this period, the debate over citizenship revolved around the individualistic education and the collective community education programmes.

The question is how do school teachers articulate citizenship in democracy? As it is a well-known fact that education is a means to bring desirable changes in the learner it seems important to know whether the teachers perceive education as a tool for enhancing responsible citizenship. School teachers are expected to be reflective practitioners as they are role models for the generations they are teaching. They must be aware of the surroundings for the sake of the betterment of the system. So, it is important to know how much awareness school teachers possess of the role of education for citizenship in democracy. Perceptions might differ due to differences in gender; as gender

is a social construct. So the specific question for this research is how does the gender of school teacher effect their perception towards education for citizenship in democracy? The present research study articulates the perception of school teachers on basis of gender.

Objectives of the Study

To study the perceptions of school teachers towards the role of course content, transactional strategies, co-curricular activities, textbooks, evaluation procedures and the school environment in developing education for citizenship in democracy in relation to gender.

Hypotheses of the Study

Teachers have differing perceptions towards the role of course content, transactional strategies, co-curricular activities, textbooks, evaluation procedures and the school environment in developing education for citizenship in democracy in relation to their gender.

Research Design

The present study, 'Education For Citizenship In Democracy' is an exploratory study where the behavioural or psychological phenomenon of the community or the institution is explored. In the present study, the teacher community and the school as an institution in which the teachers are teaching was explored through the perception of school teacher.

Research Method— Descriptive Survey Method

The objective of this research is to study the out perception of school teachers towards education for citizenship in democracy. On the basis of this objective and the nature of the problem, descriptive survey method was considered most appropriate to carry out the research.

Sources of Data

The school teachers teaching at elementary and secondary school of rural as well as urban were the sources of data of the study.

Table 1
Sources of Data

Sl. No.	Objective	Sources of data
1	Perception of school teachers related to personal factors :Gender	Male and female school teachers A sample of 560 school teachers (Male 303 and female 257) from 18 schools was taken.

Population of the study

Population comprises of the entire group of persons that is of interest to the researchers and on whom the research result can be generalised. As Delhi is the national capital territory, it can be considered as representative of the functioning of government in the nation as a whole. Being a capital, Delhi is the focal point of governance of Indian Federation. Delhi has numerous private and governments schools running in urban as well as rural areas. These schools cover the entire range from theory to development to skills of democratic citizenship. Of the massive population of Delhi, school teachers from two zones south and east were taken for the study.

Sample and Sampling Procedure

The sample selected is representing the teachers of east and south zones of Delhi. The teachers teaching in these schools, male as well as female were included in the sample. A sample of 560 school teachers (male 303 & female 257) from these 18 schools was taken.

For studying the perceptions of school teachers, the sample consisted of 560 teachers in all, approximately equal number from each of the school. The sample of 560 school teachers have been selected through stratified purposive sampling. The sample for the study is represented in the following figure—

Table 2
Sample of the Research Study

RURAL 250	Government-145	Elementary– 75	Male – 30	Female -45
		Secondary – 70	Male – 32	Female -38
	Private- 105	Elementary–53	Male – 25	Female -28
		Secondary – 52	Male – 28	Female -24
URBAN 310	Government-170	Elementary– 75	Male – 32	Female -43
		Secondary – 95	Male – 55	Female -40
	Private- 140	Elementary– 80	Male – 28	Female -52
		Secondary - 60	Male – 24	Female -36
TOTAL= 560	Govrnment-315, Private -245	Elementary-283, Secondary- 277	Male-254	Female -306

56 teachers (ten percent of the sample teachers) were interviewed to corroborate the data obtained through the perception scale.

Instrumentation

The present study aimed to explore the perception of school teachers towards education for citizenship in democracy. Self-made tools were prepared by the researcher. The tools were developed according to the purpose of the study. These were developed with the help of experts from the field of political science, social sciences, education and research. The following data gathering tools were used for the study.

1. Perception scale for school teachers (aspects covered in perception scale is as follows-role of course content, transactional strategies, co-curricular activities, textbooks and evaluation
2. Semi structured interview schedule (after taking responses on perception scale the researcher interviewed teachers on these aspects)
   - Name of the teacher, gender, qualification, teaching experience, teaching subject, type of school, demography.
   - Course-content of all common school subject is based on democracy
   - School curriculum inherits in itself the basic knowledge of democracy in terms of functioning
   - Democratic ideals and values are the most important part of National Curriculum Framework 2005
   - Their views about curriculum transactional strategies-teachers incorporate relevant local content in teaching learning process
   - Strengths and limitations of textbooks used in school- scope of improvement in relation to democracy
   - Course content should be transacted through interdisciplinary approach to study one particular theme per year
   - Their views about co-curricular activities, its working and outcome, fair chance to participate
   - CCA is the way of celebrating democracy (active citizenship) in school life
   - Learning of democracy best takes place when students can test out their ideas with other students

Nature of data

The data is quantitative as well as qualitative in nature.

Analysis of data

Raw scoring based on frequency analysis was entered into the master excel sheet and the percentage analysis of the whole data was done. After the preparation of excel

sheets the data was analysed and interpretation was done on the basis of percentage analysis of each parameter considered in the study. The perception scale collected data on five point Likert type scale and for analysis it was converted into three point scale, on the agree, disagree and neutral. Then, the percentage scoring was done to compare the response given to a particular item.

Table 1.12
(i) Gender-wise teachers' perceptions towards

Item	Table (i) Course Content and Curriculum Aspect	Male %	Female %
1	The present day curriculum is based on democracy.	81.19	83.74
2	Democratic ideals and values are the most important part of National Curriculum framework 2005.	77.72	84.24
3	Course-content of common school subject inherits in itself the basic knowledge of democracy in terms of functioning.	67.33	73.4
4	Secondary school curriculum focuses more on facts rather on how to think critically about the society.	68.81	73.4
5	School curriculum is too much text – centered and merely transmits information for due memorisation of exam related facts.	58.42	70.44
6	In school curriculum, children's conceptual understanding is largely ignored as the focus is on providing unnecessary details about the past.	55.94	61.58
7	The course content of school specifically focuses on concepts and ability to analyse socio-political realities.	59.9	61.58
8	It is important in a country like India, which has so many diversities that course content suits all religion and diversified groups.	75.25	81.28
9	It is often not possible to cater to diversity of country given the centralised nature of curriculum.	64.36	65.52

On the basis of table 1.12(i) it can be said that perception of male and female teachers is almost similar in respect to four statements related to course content (statement no.1, 7, 8, 9). This perception of teachers would affect strongly and positively in strengthening the roots of democracy. Further it can be said that perception of male and female teachers differs slightly in respect to two statements related to course content (statement no.3, 4). Greater differences in perception of male and female teachers are seen in respect to two statements related to course content (statement no. 5, 6).

In the perception scale, majority of female teachers (84.24 per cent) as compared to male (77.72 per cent) perceive democratic ideals and values as the most important part of NCF 2005. In interview session, it came out that the teachers, both male and female, have only heard about the document and only few have read it thoroughly. On another aspect, 58.42 per cent male and 70.44 per cent female teachers perceive that school curriculum is too much text – centered and merely transmits information for due memorisation of exam related facts. It suggests that female teachers are more sensitive towards the practical orientation of the curriculum. 55.94 per cent male and 61.58 per cent female are of the view that in school curriculum, children's conceptual understanding is largely ignored as the focus is on providing unnecessary details about the past. Here also, the perception of male teachers is more negative than that of female teachers which shows that they often fail to relate the content to the current scenario.

Table 1.12
(ii) Gender-wise teachers' perceptions towards curriculum transaction and transactional strategies

Item	Table (ii) Curriculum Transaction and Transactional Strategies	Male %	Female %
10	Instead of relying solely on the guidelines of curriculum, teachers must incorporate relevant local content in teaching learning process.	75.25	75.86
11	How to teach the topic in the classroom' is decided by teacher alone.	58.91	59.61
12	Ideas of subject experts, fellow colleagues and student are worth considering while deciding upon transactional strategies.	73.76	78.82
13	A teacher generally adopts only that method which is suitable to majority of the students in the class.	79.21	74.38

14	In a particular standard generally, all students are equal and they can understand equally through all methods.	44.55	49.75
15	While teaching, the teacher involves students in discussion about major socio-political issues in the class.	66.83	79.8
16	Teacher should not ask those question of socio-political importance which are not directly related to their syllabus.	39.11	47.29
17	Kids will waste time if you let them have some input in deciding what will be taught in class.	42.57	48.77
18	Course content should be transacted through interdisciplinary approach to study one particular theme per year for e.g. 'Market' as theme can be used to make connections between various disciplines. This approach is good theoretically but practically it is not feasible.	60.89	64.04
19	All school subjects can best be taught when students bring their own experiences and knowledge to the lessons.	76.24	73.4

Table 1.12(ii) reveals that perception of male and female teachers is almost similar in respect to seven statements related to transactional strategies (statement no.10, 11, 12, 13, 14, 20, 49). Both male and female school teachers perceive that local content is most relevant and must be considered in teaching learning process. School teachers perceive that how to teach topic in the class should be decided by teacher alone. This kind of approach of teachers is not in tune with the democratic traditions. At this particular point the democratic traditions are hampered. A 73.76 per cent male and 78.82 per cent female teachers perceive that ideas of subject experts, fellow colleagues and student are worth considering while deciding upon transactional strategies. Here also female teachers seem to be more open minded than male teachers. Majority of school teachers affirm that which method is to be adopted, is generally decided by teacher. In practice, teachers adopt that particular method which is suitable to majority of the class. Regarding the interdisciplinary approach which is being promoted so strongly in NCF 2005, 60.89 per cent male teachers and 64.04 per cent female teachers perceive course

interdisciplinary approach is good theoretically, but there are problems in practical implementation as no orientation is being given on these kinds of transactional strategies to them. Item no. 12 indicates that in males as well as females a majority of teachers perceive that student ideas, experiences and knowledge is important for transacting any particular topic. School teachers during one to one interaction confirm that students' ideas, examples and participation in discussions form a ground for transaction effectively.

Further, it can be said that perception of male and female teachers differs slightly in respect to two statements related to transactional strategies (statement no.15, 19). On the one hand teachers perceive it positively to consider student ideas important, on the other hand, 42.57per cent male and 48.77per cent of female teachers consider giving students a chance to give input in deciding what will be thought in class as a waste of time. Approximately, 50 per cent of male and female teachers perceive that students can contribute some inputs in deciding transaction strategies. Teachers are not utilising the inputs of students this is negative feature of classroom in any democracy. Strong differences in perception of male and female teachers are seen in respect to one statement related to transactional strategies (statement no.18) where 47.29 per cent of female teachers and 39.11 per cent of male teachers believe that teacher should not ask those question of socio political importance which is not directly related to syllabus. As per teachers point of view, this can lead to widening of gaps between the learners as they belong to different socio-economic backgrounds.

Table 1.12
(iii) Gender-wise Teachers' perceptions towards Co-curricular activities

Item	Table (iii) Co-curricular activities	Male%	Female%
20	All school subjects can be and should be linked to other subjects such as integration of social science with literature, art and drama.	82.67	75.86
21	In co-curricular activities each student should be given a fair chance to participate, irrespective of any kind of differences.	84.65	78.33
22	Each school should have a CCA committee of its own so that they can promote healthy relationships among students.	86.63	73.4
23	In CCA committee, the activities should be decided by the teachers collaboratively.	72.77	79.8

24	CCA charge should be transferable and it should go in hands of different teachers.	75.25	79.8
25	In CCA, celebration of festivals related to the majority community should be given priority.	52.48	56.65
26	CCA transacts the idea of functioning of democracy on a small scale to the students involved.	65.84	71.43
27	The socio-economic background of the children is kept in mind while giving any task.	75.25	71.43
28	Through CCA students realise their rights and responsibilities in a group.	74.26	75.86
29	Active participation is the key to a successful group; the idea is promoted through CCA.	87.62	79.31
30	CCA gives a chance to students to appreciate each other's talent, role and participation.	78.22	85.22
31	CCA is the way of celebrating democracy (active citizenship) in school life.	71.78	79.8

Table 1.12(iii) reveals that perception of male and female teachers is almost similar in respect to six statements related to co-curricular activities (statement no.21, 29, 32, 33, 36, 38). It shows that 82.67 per cent male teachers and 75.86per cent female teachers perceive that all school subjects can be and should be linked to other subjects. One can say on superficial grounds male teachers are supporting the idea of democracy but when it comes to giving a chance to participate; female teachers are more open to it. School teachers perceive that in co-curricular activities each student should be given a fair chance to participate irrespective of any kind of differences. But during the interview session it came out that mostly those students are given chance who has participated in the activity earlier. Some teachers agreed that in CCA there is a creamy layer

of students who dominates in all the activities. School teachers perceive CCA and its functioning on democratic lines as majority of teachers feel that CCA activities should be decided in collaboration and CCA charge should be transferable. In schools, the practice is that teachers once given a chance to handle CCA continue as in-charge. Only in rare cases, someone voluntarily demands for the charge.

Further, it can be said that perception of male and female teachers differs slightly in respect to these statements related to co-curricular activities (statement no.30, 31, 34, 35, 37, 39). A majority of school teachers feel that through CCA students realise their rights and responsibilities. On the aspect of celebration of festivals related to different (male 52.48per cent and female 56.65per cent) communities, teachers feel both are equally important but this number is not impressive at all. In any democracy there should be celebration of all the festivals keeping in mind the community variation. In interviews, teachers revealed that much time is spent on these activities hence it should be controlled. In school, 75.25 per cent female and 71.43 per cent male teachers perceive that socio economic background of the children is kept in mind while giving any task. 87.62 per cent of male and 79.31 per cent of female teachers perceive active participation is the key to a successful group; and this idea is being promoted through CCA. This gap of 8 per cent shows that male teachers are more active when it comes to involving students. 78.22 per cent male and 85.22 per cent female teachers perceive that CCA gives a chance to students to accept each other and appreciate other's talent, role and participation. 71.78 per cent male and 79.80per cent female school teachers perceive co-curricular activities as the way of celebrating democracy in school life. This also points towards gender differences in society as females supports the cause of democracy but practically faces challenges in implementation sometimes due to influence of patriarchal system and at times due to lack of support from school system.

Table 1.12
(iv) Gender-wise Teachers' perception towards Evaluation Procedure

Item	Evaluation Procedure	Male %	Female %
32	The most effective means to evaluate student's preparedness for citizenship performance is paper pencil test.	56.93	48.77
33	As a good evaluator, teacher should decide upon the tools of evaluation according his own choice.	61.88	66.5

34	During evaluation teachers get a chance to work according to future needs of citizens in our country.	72.28	73.4
35	Citizenships skills can best be evaluated among school children through cooperative and collaborative learning tasks.	81.68	76.85
36	School students cannot decide how they should be evaluated.	63.37	67.49
37	When school lacks time or resources to do everything, it would be better to cut back on social studies than to cut back on language or mathematics.	46.53	50.74
38	In school, all students should be encouraged to be skeptical and to question what they read and learn.	73.76	73.89

On the basis of Table 1.12 (iv) it can be said that perception of male and female teachers is almost similar in respect to three statements related to evaluation procedure (statement no.42, 44, 48). Table 4.2.1(iv) shows that 56.93 per cent male and 48.77 per cent female perceive that paper pencil test is the most effective means to evaluate students' preparedness for citizenship. Approximately, 73 per cent teachers feel that all students should be encouraged to be skeptical so that they can question what they read and write. It is indeed a very positive perception which shows teachers want students to learn and develop the skill of citizenship. Teachers feel that when they encourage them to question in class, they in way train them to question wrong things in the society and ultimately the wrongs of democracy come under the scanner.

Further, it can be said that perception of male and female teachers differs slightly in respect to two statements related to course content (statement no. 40, 41, 43, 46). One aspect which is quite disturbing are that 46.53 per cent from male and 50.74 per cent from female teachers feel that when school lacks time or resources it is better to cut back on social studies than to cut back on language or mathematics. It shows that one of the subjects of importance, which is embedded in our social life i.e. social sciences, is being given a secondary status.

Table 1.12
(v) Gender-wise teachers' perception towards textbooks

Item	Table (v) Textbooks	Male %	Female %
39	Secondary school textbook merely transmit information and is too much factual.	56.44	68.47
40	The content of school textbooks is considered to be unconnected to daily life legalities.	49.5	48.77
41	In social science textbooks, the focus is on providing unnecessary details about the past and not on developing conceptual understanding.	49.01	45.81
42	School textbooks specifically focus on concepts and ability to analyse socio-political realities.	65.35	67.98
43	It is important in a country like india that all religions and social groups are able to relate to textbooks.	68.32	76.35
44	It is often impossible to cater to diversity of the country given the centralized nature of textbook production.	67.33	60.59
45	Instead of relying on textbook alone, it is important to incorporate relevant local content in teaching learning process.	75.74	83.74

On the basis of Table 1.12 (v) it can be said that perception of male and female teachers is almost similar in respect to three statements related to textbook(statement no.23,24,25). So, in all school teachers perceive that text books must focus on democracy in India. 65.35 per cent male and 67.98 per cent female feels that textbook focus on concepts and ability to analyse socio-political realities. It can be correlated positively that students can analyse the system of governance and it means they are heading close to democracy. But at the same time, nearly half of the male as well as female teachers perceive that in social science textbooks the focus is on providing details of the past.

Further, it can be said that perceptions of male and female teachers differ slightly in respect to two statements related to textbook (statement no. 22, 26, 27, 28). A majority of school teachers feel that is important in a country like India

that all religions and social groups are able to relate themselves to textbooks. This infact is a positive sign when we consider teachers' beliefs and perception towards education for democratic citizenship. School teachers feel unity diversity is a great feature of Indian society. 67.33 per cent male and 60.59 per cent female teachers accept centralised nature of textbook production is responsible for ignoring diversity of India in textbook content material. They believe that textbook must incorporate practical day to day related things. Female teachers are more aware of the need to incorporate local content during teaching.

Table 1.12
(vi) Gender-wise teachers' perception towards school environment

Item	Table (vi) School Environment	Male %	Female %
46	Students are challenged to think critically about situations or issues.	78.71	69.95
47	In school, students are often engaged in discussion of subjects or issues that might be perceived as controversial.	58.42	61.58
48	In school, students feel that they are free to express their own views openly.	64.85	67
49	Generally, teachers don't let their students work in small groups because they believe that students would engage in unfruitful activities.	58.91	46.31
50	Secondary school students are not emotionally prepared to handle learning about problems in our society.	58.42	58.62
51	During school days, students find a lot of questions related to socio-political environment really have no one right answer.	61.88	60.59
52	Learning of democracy best takes place when students can test our ideas with other students.	84.16	82.27

On the basis of Table 1.12 (vi) it can be said that perception of male and female teachers is almost similar in respect to five statements related to evaluation procedures (statement no.17, 45, 50, 51, 52). Both male and female school teachers perceive that often students are engaged in discussion of issues that might be considered as controversial. 64.85 per cent male and 67 per cent female teachers think that students are free to express their own views openly. In interview sessions it came out that teachers do promote students to share their view point, but they admitted that there are some barriers. As many as 84.16 per cent male and 82.27 per cent female teachers believe that learning of democracy happens when students can test out their ideals with other students. Teachers know the process and idea of learning of democracy but they are not letting their students engage in those group activities which will provide those opportunities. This is happening because of the gaps in knowledge of theory and practical implications. Further (statement no.16, 47). 78.71 per cent of male and 69.95 per cent female hold that school students are challenged to think critically about situations or issues. While female teachers seem to be more aware of the need to link content with daily life and are more open to democratic ideas while teaching. Male teachers emerged as better organisers of co-curricular activities related to development of democratic ideals.

Hypothesis 1.4 states that the gender-wise teachers' have differing perceptions. But teachers' perception towards education for citizenship in democracy is not affected by gender. This hypothesis is not accepted. On the basis of data analysis, it can be concluded that both male and female teachers perceive the role of course content positively in developing citizenship in democracy.

Limitations of the study

- Perception was measured by self-made questionnaire developed by the researcher.
- For this study, schools functioning under CBSE were taken.
- This study was limited to Delhi (National capital territory) only.
- This study was limited to east and south zones of Delhi.
- This study was limited to government and private institutions only.
- The study included only those teachers who are faculty in formal setup teaching at elementary and secondary schools.

Conclusion

According to school teachers, democratic values are the most important part of National Curriculum Framework 2005 and it is being reflected in course content of school curriculum. So course content can play a vital role in developing education for citizenship in democracy. Male and female teachers believe that

transaction can be made effective if there is scope for incorporation of ideas of students, fellow colleagues and subject teachers. Both male and female teachers perceive the role of co-curricular activities as positive in promoting healthy relationships among students. For evaluation procedure, the scope of democratic functioning is less according to both male and female teachers. To them evaluation is an area of teachers and should be decided by teachers. They perceive the role of school textbooks as positive in developing citizenship skills in democracy. Gender doesn't affect the perception of school teachers.

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Connecting Civics to Life Around Us: An Experiment with Municipal Corporation Schools in Pune Region, India
A Qualitative Study

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Abstract

Informed, active and responsible citizenry is fundamental for democracy to sustain and flourish. Research suggests that the impetus civic awareness and responsibility start at adolescent age. Hence, it is important that schools use methodologies that make civic education interesting, practical and relevant. Current study explores an educational intervention called Civic Action Project (CAP). The study adopted quasi experimental research design. The experimental group students underwent CAP intervention, whereas the control group students did not undergo CAP and received regular teaching. Purpose of the study was to investigate how students put their knowledge and skills to use while responding to solve a hypothetical civic issue (using a vignette). Further, the study aimed to examine dispositions reflected in their responses. Qualitative methods were used for data collection and analyses. Findings of the study show that hands on experience in interventions like CAP can help teachers encourage competent civic engagement among students.

Introduction

Civic education in democracy is learning to govern ourselves (Branson 1998, p. 2).

Hence, it follows that informed, active and responsible citizenship is a prerequisite for the democratic self-governance which in turn can

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be developed through education (Kahne and Middaugh 2008, p. 1). The political scientists, Sharon Cook and Joel Westheimer, in their essay titled 'Democracy and Education' state that "If people are not born democrats then, surely education has significant role to play in ensuring that the democrats are made (Cook and Westheimer 2006, p. 348)."

Broadly, civic education at schools builds capacities of students to gain civic knowledge, skills and dispositions. Civic knowledge concerns information around polity. It includes understanding about the Constitution, rights and responsibilities of citizens, structure and functions of the state and avenues of citizen participation among others. Civic skills are not to be perceived in isolation but they are closely linked with capacity building of citizens on effective civic engagement (Kirlin 2003, p. 3). Civic skills are further divided into intellectual and participatory skills (Branson 1998, p. 5). The intellectual skills encompass ability of citizens to identify the public issues, build critical understanding of the issues, take a stand point and defend it. Participatory skills are needed to act upon the standpoint. It involves dialogue with fellow citizens and government, monitoring, and influencing political processes around them. Finally, civic dispositions are to be perceived in light of constitutional morality. Citizens are entrusted with not only the responsibility of practicing democratic values in their lives but also with making sure that discourse of their society and state is in alignment with the democratic values.

Civic Education in India

National Curriculum Framework 2005 (NCF 2005) clearly states that school education is vested with responsibility of development of citizenry that is conscious of their rights and duties and depicts commitment to the principles embodied in our Constitution (NCF 2005, p. 7). Further, NCF 2005 emphasises on connecting the knowledge to life outside the school in an organic way to ensure that learning shifts away from rote methods.

However, despite up gradations, investigators 'formative conversations with schools reveal that students perceive civics to be a lifeless subject with no practical relevance. Similarly, key findings of a recent study by Children's Movement for Civic Awareness — an NGO report that Indian youth scores very low on principles of democratic citizenship and further our education system has not addressed this alarming reality (Yuva Nagarik Meter 2016, pp. 20-32). Hence it follows that teachers must adhere to methodologies that can help students find civics interesting, relevant and important. Considering this concern, current study revolves around an educational intervention called Civic Action Project (CAP).

Objective

This study involved introducing CAP as part of political science subject

for 9th grade. As part of the CAP, students select a civic issue from their neighborhood, do research on the issue and work with the concerned government authorities to solve it. Experimental group students underwent CAP intervention while control group students were not introduced to CAP and followed their regular discourse of teaching. The study was undertaken with further mentioned objectives—

1. To investigate how students put their civic knowledge and skills to use while responding to solve a hypothetical civic issue (using a vignette) in the community and examine students' dispositions depicted in their responses.
2. To examine qualitative differences between responses of control and experimental group students.

Methods

Sample

Sample included 150 students studying in 9th grade of municipal schools of city of Pimpri Chinchwad and city of Pune respectively. Pimpri Chinchwad and Pune are neighboring cities of western Maharashtra and each have a municipal corporation of its own. The selection of the municipal schools from these cities has been purposive. For the academic year 2016-17, when the current study was administered, investigator's team was already working on introducing CAP with municipal schools of Pimpri Chinchwad and Pune. From these schools, one experimental group school per corporation was selected. Further, 9th grade was selected for the study because state board curriculum of 9th grade matched the topics to be covered under the CAP. Further, investigators team found 9th grade students to be age appropriate (average age – 15 years) to carry out the CAP. One control group school per corporation was selected from the list of schools that was not part of the CAP. After the selection of control and experimental group schools, it was decided that the administration of study will be limited to one division of 9th grade. The control and experimental group students belonged to the same category of schools public municipal schools. Selecting both groups from public municipal schools allowed us to reduce the potential confounders and match the students on their key demographic characteristics, such as parental socio economic status. The final selection of students is as follows (Table-1).

Table-1

Group details	Number of students (Total= 150)	Grade	Division	Location of the school
Control group one (C1 group)	48	9th	1	Pimpri Chinchwad

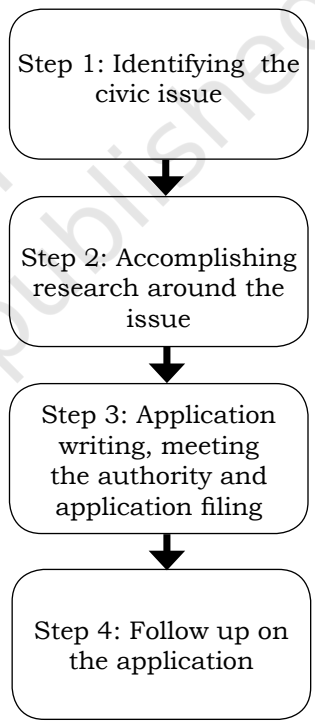
Experimental group one (E1 group)	43	9th	1	Pimpri Chinchwad
Control group two (C2 group)	31	9th	1	Pune
Experimental group two (E2 group)	28	9th	1	Pune

INTERVENTION

CAP is an experiential program in which students choose a civic issue from their surrounding and work with the concerned government authority to solve it. The adjacent diagram (Figure-1) describes steps of CAP. Experimental group students worked on CAP during school hours and in their respective school itself. Eleven sessions were held at frequency of one session per week (or) fortnight between January and March 2017.

Based on the original study design, teachers of experiment group classes were to administer CAP under guidance and observation of the investigators. Both the teachers received the training for the same. Teacher responsible for E1 group followed the original study design. In E2 group, however, right after the initiation, the associated teacher was unavailable to administer the CAP. Hence, CAP was administered by the study investigators (BB and KS). Following are the major milestones of CAP achieved by experimental group students by the end of study period.

Figure -1 : Steps in CAP



Step-1: Identification of the issue

E1 group students chose issue of the school furniture scrap that was dumped on their school playground for more than two years. E2 group students chose the issue of overflowing garbage bin outside their school.

Step-2A: Field research around the issue

E1 group students interviewed citizens from the surrounding on the issue of scrap and probed on its impact and inquired if citizens had initiated any action on it. E2 group interviewed teachers, school staff and citizens from the surrounding.

Step-2B: Desk research around the issue

E1 and E2 group students found out following references and documents (with help of internet and books) concerning the issue and studied them.

- Articles from the Indian Constitution concerning the issue
- Relevant laws/rules/guidelines/ other government documents pertaining to the issue
- Identification of the concerned government authority for issue redressal
- (In E1 group, where teacher was administering CAP, investigators team helped her accomplish desk research with the students)

Step-3: Application writing, meeting with the authority and application filing

In their search for finding concerned government authority, E1 group students identified secondary education officer for issue of scrap whereas E2 group students identified sanitary inspector of their ward office. Students wrote the complaint applications and supported them with the documents gathered through research. A meeting was arranged with the concerned authorities. Students presented their project work to the authorities, submitted their applications and discussed possible solutions on the issue.

Step-4: Follow up

Education officer told E1 group students about the recently held auction and confirmed that within 15 days, the dismantling and removal of scrap will happen. Soon, the scrap was removed and a follow up was not required in this case.

E2 group students met sanitary inspector just before final examination of the year. Hence, no immediate follow up was possible after the end of school year. In the next academic year, investigators could not obtain permission from the school to follow up on CAP. When visited last, compared to the times when the work on CAP was underway, investigators did not find much difference in the issue site.

Data collection and analysis

Post the intervention, data collection among control and experimental groups took place. Using a vignette, investigators drafted a hypothetical issue and developed an instrument of writing— an action plan to solve it.

Text of the instructions that students received is as following—

"This year, as part of your political science subject, you have got a project assignment. In this assignment, you will be working on solving below given civic issue. There is an open drainage near the footpath of your school. Due to this, you are suffering from the foul odour in your school. The drainage water flows on the road as well. Along with you, other citizens from surrounding are affected as well. With reference to what you have learnt in civics or political science subject, how will you solve this civic issue? Prepare an action plan and describe it in 10-12 sentences here."

Dr. Suhas Palshikar (mentor of this study) assessed the instrument to ensure that it allows investigators to evaluate students' civic knowledge, skills and dispositions from the responses.

Students wrote their responses in Marathi language. Investigators translated the data verbatim in English. Data was entered and coded using Dedoose software and was analysed using content analysis based on grounded theory. After thorough and repeated reading of responses, investigators created an initial codebook to analyse the data. The codebook developed by the investigators is entirely based on the data collected. Hence, it omits the possibility of biased interpretations and assures the interpretive and evaluative validity.

Results

Before the start of the study, all selected experimental and control group students were given a civic test containing 13 multiple choice questions. The questions in questionnaire were such that they could test the then civic knowledge, skills and dispositions of the students, were deemed appropriate for their school level and were based on the syllabus. All responses were graded and a final score was calculated for each student. A t-test was run to evaluate whether there are any differences between control and experimental group students. The t-test was not significant ($p > .05$) indicating that there was no difference in civic knowledge between experiment and control group students pre intervention. On average, control group students scored 4.03 out of 13 and intervention group students scored 4.93 out of 13.

From the data collected for qualitative analysis, civic knowledge, skills, dispositions and impact emerged as principal codes in codebook. The sub-codes in each main code captured further nuances of responses. Responses of control and experimental group students portray some qualitative differences and few similarities as depicted in Table 2.

Table 2

Frequently appearing codes in the codebook	Prevalent among Control group n=79 (C1-48,C2-31)	Prevalent among Experimental group n=71 (E1-43,E2-28)
Civic knowledge		
Approaching councillor as a first step to solve the issue	n=30 (C1-18,C2-12)	n=20 (E1-15, E2-5)
Approaching municipal corporation as a first step to solve the issue	n=16 (C1-9,C2-7)	n=16 (E1-13, E2-3)
Approaching sanitary inspector of ward office at municipal corporation as a first step to solve the issue	-n=1 (C1-1,C2-0)	n=20 (E1-2, E2-17)
Reference to the Constitution	n=0 (C1-0,C2-0)	n=20 (E1-10, E2-10)
Knowledge of civic rights	n=4 (C1-1,C2-3)	n=22 (E1-20, E2-2)
Civic skills		
Use of written communication methods to address the issue with authorities	n=23 (C1-18,C2-5)	n=56 (E1-30, E2-26)
Use of non-written communication methods to address the issue with authorities	n=48 (C1-34,C2-14)	n=16 (E1-14, E2-2)
Desk research on the issue	n=0 (C1-0,C2-0)	n=49 (E1-23, E2-26)
Field research on the issue	n=0 (C1-0,C2-0)	n=52 (E1-27, E2-23)
Application supported by evidence	n=0 (C1-0,C2-0)	n=16 (E1-3, E2-13)
Maintaining records for follow up	n=0 (C1-0,C2-0)	n=9 (E1-0, E2-9)
Keeping councilor in loop on the action	n=0 (C1-0,C2-0)	n=10 (E1-0, E2-10)
Civic dispositions		
Holding authorities accountable	n=8 (C1-5,C2-3)	-n=6 (E1-1, E2-5)
Less faith in authorities	n=12 (C1-10,C2-2)	-n=6 (E1-1, E2-5)
Solving the issue themselves and raising funds for solution	n=9 (C1-5,C2-4)	n=7 (E1-6, E2-1)
Impact of the issue on different aspects of life	n=47 (C1-32,C2-15)	n=22 (E1-15, E2-7)

Following quotes are some representative responses of control and experimental group students. The quotes are typed verbatim.

Approaching councillor as a first step: "In order to solve this issue, I will ask for help from the councillor of this area. And I will explain the issue that near the footpath outside our school, there is an open drainage."

Approaching municipal corporation as a first step: "There is an open drainage near the footpath outside my school. In order to repair it, I will write a letter to municipal corporation. If they do not repair the drainage and children fall sick because of the drainage, then I will write a letter again and inform municipal corporation that children are falling sick, do the work at earliest."

Knowledge of civic rights: "The reason for writing this application is that clean environment is related to our right to life; we are submitting this application after research and discussion."

Reference to the Constitution: "In order to solve this issue, we will firstly see the concerned right from the Constitution and will look for the laws made for these rights."

Written form of communication: "We will write an application to the sanitary inspector of that area. In that application, we will write about the work which we have done regarding this issue and as evidence we will attach the copies of citizen interviews."

Non written form of communication: "We will tell the councillor that outside our school, there is an open drainage near the footpath and the foul odour is spreading in our school because of that. This should be cleaned. This is my request."

Discussions around preliminary research before approaching the authority: "Firstly, we will try to understand whether citizens and students are suffering from this. We will take interviews of citizens in neighbourhood, students and teachers. Through interviews we will come to know about the trouble caused by this open drainage."

"In order to solve this issue, we will firstly see the concerned right from the Constitution and will look for the laws made for these rights."

Application supported by evidence: "We will meet the Commissioner of the municipal corporation and tell then about this issue and we will also inform then about the information like laws, rules and duties of municipal corporation that we have gathered about the issue. With all these papers, we will write one request asking then to address the issue."

Holding authorities accountable for their duties: "If the councillor does not listen to us, then I and we all living there, will not vote for then. of they don't do our work then what makes them our councillor."

Less faith in authorities: "We will go to the municipal corporation

office and we will register a complaint and we will watch if they make note of our complaint or not. If they do not accept our complaint, then we, all the students of the school will collect money and we will get the drainage work done."

Solving the issue themselves: "We all citizens should clean the drainage so that the surrounding of our school will remain clean and hence school children will not fall sick."

Impact on different aspects of civic life:"The drainage is outside the school premise. Because of this, the foul odour is spreading in our school. Children coming to school can fall sick because of this."

Discussion

This study evaluated a novel approach to teach political science to 9th grade students using a quasi experimental study design. Our results show that experimental group students who underwent CAP intervention, gained more civic knowledge, skills and experience than control group students who did not undertake CAP.

As indicated in Table- 2, experimental group students focused predominantly on procedural part of civic action. Control group students wrote elaborately about the impact of the issue on their lives. They also mentioned about approaching the authorities to solve the issue, but lacked in writing out details of how they would do it.

The hypothetical issue presented to the students points out gaps in the implementation of the duties of municipal corporation – the urban local governance unit.The executive arm of the municipal corporation and the elected representative that is councillors are the key authorities responsible for issue redressal. However, their roles are different when it comes solving such issues. It is expected that for such issues, students approach the concerned executive authority at the municipal corporation and keep the councillor of their ward informed on the same. However, the students lacked the nuanced understanding of different roles and responsibilities undertaken by the authorities. It could be attributed to the factor that a councillor is part of the ward with possibility of their office being in neighbourhood and is often accessible for multiple issues as compared to the municipal corporation which is a structured institution with several departments under it.

A written communication with government authorities surely has an edge over an informal way of communicating. Written application when drafted well is a structured document that clearly states the issue, is addressed to the exact authority and also sets out the expectation on the possible action to be taken by the authorities. Experimental group students have preferred to use written mode of communication while control group students have stuck to non-

written communication methods. Thus, experimental group students displayed understanding of the importance of written communication as compared to control group students.

Furthermore, experimental group students also extensively discussed field and desk research as a part of filing a written application. Advantages of research activities are multi-fold. Field research gives a good insight into the opinions of other citizens about the issue and can possibly create room to engage them in the action. In addition, the field research can serve as an evidence of existence and implications of the issue. In desk research, finding out laws, rules and other government documents concerning the issue bears lot of significance. An action based on information can give citizens an added advantage while working with the authorities. However, undertaking research based activities appears to be almost non-existent among responses of control group students.

The Constitution is a foundation of any civic action. Therefore, reference to the Indian Constitution is indispensable. Experimental group students made references to Constitution in ways like mentioning about violation of Article 21 that is right to life. They were also more aware about the civic rights they possess and were able to connect the violation of rights with the hypothetical issue presented to them. Control group students have neither perceived the issue in light of civic rights nor have they mentioned about the Constitution. This particular trend of control group students raises an important concern. Especially considering the fact that 9th grade students had topics like Constitution of India and fundamental rights to study as part of political science curriculum.

There is a spectrum of dispositions that has got reflected in the responses. Despite the awareness of civic rights and civic procedures, it appears that attitude of holding government accountable is yet to get nurtured among the experimental group students. While control group students did not depict much knowledge of civil rights, a small number of students (n=8) wrote about holding authorities accountable. This shows that these students have the required dispositions to solve the issue however it requires to be substantiated by the essential knowledge and skills.

On the contrary, some control group students wrote about solving the issue themselves (n=9) or raising funds for it (n=7). While taking ownership for actions like these is appreciative, there is a clear deviation from the ideal role of citizenry where citizens claim their rights with the state. Alarmingly, some control group students (n=12) also wrote about having less faith in authorities with regards to issue redressal.

The data for experimental groups was further analysed to find out the differences among E1 and E2 group. As Table 2 indicates, E2 group students wrote about contacting sanitary inspector of the ward office. They are is the same authority that E2 group students had worked with during their CAP project on waste management. This particular aspect hence stands as a limitation for this part of the study. E1 group students rarely mentioned about contacting sanitary inspector.

Further, E1 group students linked hypothetical issue to violation of civil rights whereas E2 group students did not focus on civil rights. Under civic skills, among E2 group, good number of students wrote about taking up steps like supporting application by evidence, maintenance of records for future follow up and keeping councillor in loop to solve the issue. E1 group students have almost missed considering these steps in their civic action.

The responses of the experimental group students depict that they have been able to produce an action plan based on the activities they undertook during their CAP. Control group students depict the willingness and right attitude to solve the issue; however, they struggled with the necessary knowledge and skills to substantiate their civic actions. This indicates that CAP intervention increased students' civic capacities as compared to the control group students.

Interventions similar to CAP can combat the gap between 'ideal' stated in the textbooks and 'reality' of the world (George 2005, pp. 71-74). Evidence suggests that even a short intervention can bring about significant improvement in the civic knowledge, skills and public policy issue solving skills of the participant students (Root and Northup 2007, pp. 6–23). Although the implications of our study are tremendous in civic educational field, this study has some caveats. Ideally, the interventions in both the experimental groups should have been carried out exclusively by the associated teachers. In E2 group, the unavailability of the associated teacher compelled the investigators to carry out the intervention themselves. It is also imperative to measure the change in the capacities of teachers who facilitate such interventions which has been missed in current study. Thus, future research needs to also understand the role of the teacher to increase civic skills and knowledge among students. Our study used one of the most relevant civic issues faced by citizens on daily basis — waste management. The students not only learned about the civics and political structure of their cities but they also learned to effectively engage with the civic bodies. The intervention took place during school hours and without any additional financial or administrative impact to the school and the teachers.

Conclusion

Many studies suggest the importance of civic education and the challenges encountered by the teachers. In context of India, the most critical challenge for teachers has been to make civics interesting and a subject that has an application value. Current study shows that intervention like CAP can serve as an aid to teachers in contesting the above challenge in an organic manner. When planned in advance, CAP is highly feasible in a school setup. A well-resourced library, availability of infrastructure for use of Information and Communication Technology and few changes in the classroom sessions can enable schools conduct CAP smoothly. However, it is the capacity building of teachers and their willingness to experiment is what forms the prerequisite for its success.

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Exploring Differences in Student's Digital Usage Motivations in Kashmiri context

Wahid Ahmad Dar and Kounsar Jan*

Abstract

This study aims at standardising student's Digital Usage Motivation Scale (DUMS) for identifying various kinds of individual differences among students based on various demographic variables. It aims at understanding influence of gender, residential background and socio-economic status on digital usage motivations. The study is based on a sample of university students of Kashmir. Data was collected through an offline survey (n=704) in compliance with ethical principles of research on human subjects. Using SEM (Structural Equational Modeling), model fit was obtained between hypothesised model and observed data with seven first-order digital usage motives factors as education, capital enhancing, social exchange, self-presentation, self-expression, entertainment and diversion and three second order motive factors as instrumental, socialising and mood management. The study establishes the psychometric properties of DUMS. Study has shown that males and females differ significantly on first order motive factors of education, capital enhancing and self-presentation and second order motive factor socialising. It was evidenced that gender, residential background and socio-economic status significantly influence digital usage motivations. This scale can be useful in understanding individual and group level differences in digital usage motives for successful implementation of ICT in educational settings.

Introduction

Over since the dawn of ICT, our understanding of its relevance in education has been largely based on the notion that today's students are significantly different than their

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predecessors, not only in the styles of life but also in their psychological characteristics (Dede, 2005; Oblinger and Oblinger, 2005). Digital technologies have been integral part of young people's lives; particularly the present generation of university students is believed to have been drawn from the first generation of Digital Natives who grew up with the ICT (Prensky, 2001). Today's university students supposedly prefer rapidity and are adept in acquisition and processing of information; prefer multi-tasking and non-linear access to information; show an aversion for lectures; prefer active rather than passive learning, and rely heavily on communications technologies to access information and to carry out social and professional interactions. (Prensky 2001) However, recent research claims that most of these preconceptions about student's ICT related behaviour are based on speculative presuppositions, revolving around the concepts like Digital Natives, Net Generation and Millennials (Joines, Scherer, and Scheufele, 2003). Margaryan, Little Jhon & Vojt (2010) argue that such claims may not be true in reality; substantial research is needed to provide accurate portrayal of technology adoption among students. Prensky (2001) also proposes a monotonous understanding of Digital Natives. Although his propositions may be true to the extent that present day 'Net Generation' may be significantly different than their teachers, but it may not be in the fitness of things to underestimate the influence of psychological, social, cultural factors in producing individual differences among Digital Natives in terms of their preferences, styles, motivations, uses etc. (Kennedy, et al., 2010; Joines, Scherer, and Scheufele, 2003).

Presently, it is important for universities to ensure that decision making about how to enhance the learning experiences of students through the use of ICT is both evidence based and empirically informed. Although, digital transformation in educational system is inevitable, but it will be misleading to ground such changes on unverified notions about student's digital behaviour (Kennedy, et al., 2010). A comprehensive understanding of student's digital behaviour should be guided by the fact that there are individual differences in technology adoption, use and likeness. The popular understanding that technology integration will make learning interesting for students seems to have been propagated by big IT companies with a motive to maximise their marketing in educational sector (Bayne and Ross 2007). The successful implementations of ICT in education depends majorly on identifying motivations that underlie its usage (Hernandez, Montaner, Sese, and Urquizu, 2011). Understanding student's needs and motivations behind ICT usage could be key to effectively harness the potential of

ICT in educational landscape. Most educational programmes attuned to influence student's behaviour through various digital facilities often underestimate student's social and psychological dispositions. Consideration of student's needs and expected outcomes with digital technologies must be the first step towards building digitally enabled educational programmes. Identification of student needs and motivations with digital media will lay down the principles for construction of e-content. Therefore, primary goal of this study is to develop a tool for understanding individual differences in students ICT usage based on their underlying motivations.

Research on understanding individual differences in student's motives for ICT usage has gained momentum since the last few decades (Senkbeil, 2018). The rationale behind understanding differences in student's ICT usage fall within two larger theoretical frameworks. One framework which is more central to psychological research on ICT, focuses on identifying problematic ICT or internet usage behaviours for example internet addiction (Young, 1998; Chou, Condron and Belland, 2005; Wang et al. 2011;La Rose, Lin, and Eastin, 2003). Other is more sociological in nature and focuses on class, gender and social-economic differences in digital usage, which falls within the larger framework of digital divide (Larose, Mastro and Eastin, 2004; Hargittai and Hinnant, 2008). This entails the second goal of the study which relates to identification of various types of digital divides like gender digital divide and geographical divide.

On the sociological front not only access to technological artifact, but patterns of usage should also be considered when studying the social implications of technology. As technology has become more common among masses, it has become less important to look for mere demographic differences in terms of who is online and who is not. Rather there is a need to start looking for differences in terms of usages. We have to move from asking the question, "who is online?" to "what people are doing online?" (Hargitta, 2002). Verifying differences in use of digital technologies helps in understanding the second level of digital divide (Hargittai and Hinnant, 2008). For example, some scholars have tried to distinguish between people on the basis of their ability of 'capital enhancing' use of ICT, which refers to using internet for activities that can enhance one's life chances. Engaging in capital-enhancing activities is more likely to offer users opportunities for upward mobility than certain other types of online activities (e.g., checking sports scores, reading jokes) (DiMaggio and Hargittai, 2002). As it has been found that income can directly influence availability of physical access and attitudes for digital use (Warschauer 2002), people from high income

groups are more likely to use ICT for beneficial purposes (Hassani, 2006). Therefore, digital usage differences have serious implications in social reproduction of inequality (Warschauer, 2003).

Conceptualising motivation for ICT usage

Uses and gratifications theory (U and G) forms the most dominant approach for explaining individual differences in ICT usage. U and G theorists assert that whereas initial use of digital media may be a result of accidental exposure or curiosity, continuing use suggests there are underlying motivations driving repeated use. For example, if audiences were not receiving certain rewards or gratifications from using a mass medium, they would stop using that medium (Joines, Scherer, and Scheufele, 2003). U and G approach simply represents an attempt to explain the way in which individuals use media actively, among other resources in their environment, to satisfy their needs and to achieve their goals (Katz, Blumler, and Gurevitch, 1973; McQuail, Blumler, and Brown, 1972). U and G theory explains why psychological needs of users shape their motivation and decision to utilise a certain medium to obtain gratifications (Rubin, 1983). The theory has been criticised for the weaknesses of not being able to theoretically and methodologically distinguish between gratifications sought and gratifications obtained. The problem has been dealt to some extent by U and G theorists (Palmgreen, Wenner and Rayburn 1981). But the issue persists as gratification sought and obtained remain two different categories with one incomplete without the other. With frequent inability of U and G studies to explain the variance in media consumption and internet use, scholars have tried alternative approaches like social cogitative theory (SCT) of Bandura (1986) for getting insight into student's ICT usage (LaRose and Eastin 2004; Senkbeil, 2018). SCT states that individual's preference for a particular kind of media use is shaped by his expectations about the likely outcomes of future media (ICT in our case) consumption, which get continuously reformed through individual's experience and ability of forethought (Bandura, 1986). Logically, this appears to explain the relationship among gratifications sought, media behaviour, and gratifications obtained (Peters, et al., 2006; Palmgreen, 1985). According to LaRose et al. (2001), the outcome expectation construct parsimoniously fills the void between gratifications sought and gratifications obtained in U and G research (Peters et al., 2006). Instituting outcome expectations element within U and G model may augment the measurement of ICT usage and may improve the predictive validity of uses and gratifications research in general. This would bring greater consistency to the measurement of gratifications

(or incentive categories, in social-cognitive terms) as well. Outcome expectations reflect current beliefs about the outcomes of prospective future behaviour, but are predicated on comparisons between expected incentives and incentives attained in the past (LaRose and Eastin 2004). Therefore, an individual response to the statment 'I use internet to chat with my friends' is based on his past experience and his vicarious future expectations. Therefore, outcome expectations provide incentives for enacting behaviour, while expectations of aversive outcomes provide disincentives (Bandura, 1986). Outcome expectations act as motivators of current behavior (Bandura, 1986), therefore, outcome expectations represent motivational incentives to satisfy certain needs, (so called ICT usage motives), such as self-presentation, or social interaction (Senkbeil, 2018).

into student's digital use motives. As underlined above for conceptualising Digital Usage Motivation Scale, U and G approach has been used through the lenses of SCT theory (Senkbeil, 2018; Peters et al., 2006; LaRose and Eastin, 2004). Gratification from ICT use has been operationalised as outcome expectations instead of typical uses.

Referring to Bandura's (1986) incentive categories LaRose and Eastin (2004), in his model of media attendance (MMA) conceptualised six motives for digital usage—novel outcomes, status outcomes, social outcomes, activity outcomes, monetary outcomes, self-reactive outcomes. Peters et al., 2006 standardised the LaRose (2004) model in European contexts with same, incentive categories. Following the same Senkbeil (2018) modified MMA to include not only web-based

Table 1a
Different Models Based on Sct Of Bandura

1	Larose, Mastro and Eastin	Novel outcomes, status outcomes, social outcomes, activity outcomes, monetary outcomes, self-reactive outcomes
2	peters et al., (2006)	No change
3	Senkbeil, (2018)	Information seeking, learn and work, social exchange, self-presentation, entertainment, escapism.
4	Present study	Education, capital enhancing, relationship, self-presentation, self-expression, entertainment and diversion.

Following LaRose and Eastin (2004), Senkbeil (2018) peters et al., (2006), we applied SCT to get an insight

applications but also to desktop applications such as word processing, spreadsheet, and presentation

software and standardised it to German settings with six motives which included information seeking, learn and work, social exchange, self-presentation, entertainment, escapism. In Senkbeil (2018), model three underlying second order latent factors were identified namely instrumental orientation, social interaction orientation and hedonic orientation.

We identified seven first order motives in SDUMS, namely education (academic and informational use of ICT; Selwyn, 2008), self-expression and self-presentation these are in line social identity expressiveness and self-identity expressiveness (Tosun, 2012; Thorbjørnsen, Pedersen and Nysveen, 2007; Bargh, McKenna, and Fitzsimons, 2002), relationship, diversion, entertainment and capital enhancing (activities which are likely to enhance one's life chances; DiMaggio and Hargittai, 2002). Monetary incentives in LaRose and Eastin (2004) and learning and working motives in Senkbeil (2018) were replaced by capital enhancing motive in the current study. Information motive was modified to education which not only included seeking information but also novel life skills. In accordance with previous research (Metzger and Flanagin, 2002) where in it has been argued that with new technologies it is worthy to distinguish between instrumental and other types relaxation and entertainment motives. Following Senkbeil (2018) and Senkbeil and Ihme, (2017), we conceptualised three second order factors to SDUMS. Instrumental motives include capital enhancing and education. Social orientation includes self-expression, self-presentation, and relationship motives. Mood management includes those motives which direct ICT use for diversionary motives such as entertainment, relaxation, or escapism (e.g., Metzger and Flanagin, 2002; Senkbeil and Ihme, 2017).

Research Goals and Hypotheses

1. To test how well the proposed model of SDUMS reproduces the observed data.
2. To test the psychometric properties of SDUMS on a Kashmiri student sample.
3. To study the gender differences in digital usage motivations.
4. To study differences in digital usage motivations in terms of residential background.
5. To study correlation between digital usage motivations and socio-economic status.

Hypotheses

H1a: Observed data will reproduce the SDUMS model with a significant model fit.

H1b: SDUMS will have reliable and valid psychometric properties.

H1c: With respect to SDUMS, measurement invariance shall be established with respect to gender and residential background.

H3. Male and female university students differ significantly in terms of their digital usage motivations.

H4. There are significant differences in digital usage motivations based on residential background.

H5. Socio-economic status significantly influences digital usage motivations. This would further mean that students with better socio-economic status would use ICT more instrumentally.

Methodology

Sampling and data collection procedure

This study was based on a cross-sectional survey conducted from 2017-2018 in three major universities of Indian administered Kashmir. The data was collected considering the ethical principles of research with human participants. A sample of 704 individuals was randomly selected. The sample constituted of 309 males and 395 females, 392 rural and 310 urban students. The participation in survey was voluntary. Written informed consent was obtained from the heads of all the participating institutions. The data collection usually started with an introduction by the researcher spilling out the aims of the study and instructions for filling the questionnaire and took place in regular classroom settings in presence of the researcher.

Instruments

A draft of around 30 questions was framed considering the theoretical model of the study. These questions represented various dimensions of SDUMS. The draft was evaluated by 6 experts independently from the disciplines of psychology, education, computer science, information and media studies. Little modifications were made in the questions considering the comments of the experts. After which the questionnaire was introduced for tryout. The 18 item SDUMS is in the form of seven point likert scale which has statements ranging from never to very frequently.

Data analysis

Data was analysed using SPSS AMOS 22.0.0. Using maximum likelihood method the model, fit of theoretical model with the observed data was tested.

Model fit with first-order confirmatory factor analysis

With respect to H1a hypothesis, a decent model fit was obtained with first order CFA. The output of the AMOS yielded a chi-square value of 220.963, with 113 degrees of freedom and a probability of less than 0.0001 ($p = 0.000$), with CMIN/DF = 1.955. Because the chi-square has been found to be too sensitive to an increase in sample size and to the number of observed variables (Hair et al., 2006), the ratio of chi-square to its degree of freedom (x2/df) was

used, with a range of not more than 3.0 being indicative of an acceptable fit between the hypothetical model and the observed data (Carmines and McIver, 1981).

CFI (comparative fit index) = 0.976; GFI (goodness of-fit index) = 0.968; AGFI (adjusted GFI) = 0.951; PGFI (parsimonious GFI) = 0.639; RMR (root mean square residual) = .111; TLI (Tucker and Lewis index) = 0.967; NFI (normed fit index) = 0.952; RFI (relative fit index) = 0.936; RMSEA (root mean square error of approximation) = 0.037; BIC (Bayesian information criterion) = 601.256. The values of the fit indices mentioned above indicate a reasonable fit of the measurement model with data (Byrne, 2001).

Model fit with second order confirmatory factor analysis

In order to build a more parsimonious model and provide an account for the correlations among the lower order factors a higher order CFA (second order in this research) was conducted. Higher order factors account for the correlations among the lower order factors. The output of the AMOS analysis yielded a chi-square value of 282.235, with 124 degrees of freedom and a probability

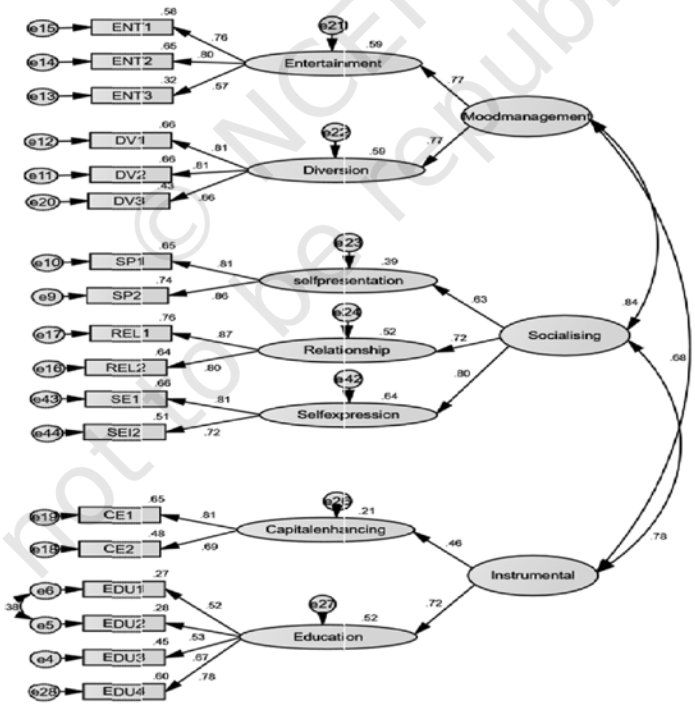

Figure 1 SEM of SDMS.

of less than 0.0001 (p = 0.000), CMIN/DF = 2.276; CFI = 0.965; GFI = 0.957; AGFI = 0.941; PGFI = 0.694; RMR = 0. 151; TLI = 0.957; NFI = 0.939; RFI = 0.925; RMSEA = 0.043. With respect to H1a the values of the fit indices mentioned above indicate a reasonable fit of the measurement model with data (Byrne, 2001).

Internal consistency

Satisfactory measures for internal consistency of SDMS were obtained. The scale has overall alpha score of .864 which is acceptable. The table 1 shows the reliability measures of the seven factors which are all above the cutoff score of .70 (Sax, 2001).

Convergent Validity

Anderson and Gerbing (1988) state that the convergent validity of a model can be accessed by determining whether the path estimates between the measurement items and their respective latent constructs are significant or not. In case of the AMOS output, the standardised estimates of all the measurement items were significant as shown in table 2. Each variable exhibits significant loadings which supports the convergent validity. Also, it could be seen that AVE for all the constructs is either greater than or close to .50 which confirms its convergent validity.

Table 1.
Reliability of Digital Usage Motive

S.no.	Factors	Mean	SD.	Cronbach's Alpha
1	Education	15.19	5.219	.780
2	Capital enhancing	4.17	3.397	.717
3	Relationship	7.85	3.573	.819
4	Self-presentation	4.53	3.715	.820
5	Self-expression.	6.56	3.347	.736
6	Diversion	10.1	4.960	.799
7	Entertainment	9.78	4.792	.751
	Overall	58.10	18.696	.864

Table 2
Standardised Regression Weights and AVE

Observed variable		Latent variable	Estimate	Squared Loadings	AVE
EDU3	<---	Education	.678	0.459684	
EDU2	<---		.542	0.293764	
EDU4	<---		.763	0.582169	
EDU1	<---		.532	0.283024	
SP2	<---	Self-presentation	.855	0.731025	
SP1	<---		.813	0.660969	

DV2	<---	Diversion	.813	0.660969	
DV3	<---		.810	0.6561	
DV1	<---		.657	0.431649	
ENT3	<---	Entertainment	.568	0.322624	
ENT2	<---		.803	0.644809	
ENT1	<---		.766	0.586756	
REL2	<---	Relationship	.789	0.622521	
REL1	<---		.879	0.772641	
CE2	<---	Capital enhancing	.715	0.511225	
CE1	<---		.781	0.609961	
SE2	<---	Self-expression	.724	0.524176	
SE1	<---		.803	0.644809	

Discriminant Validity

As proposed by Fornell and Larcker (1981), discriminant validity can be assessed by comparing the average variance (AVE) in indicators explained by the constructs and the corresponding inter-construct squared correlation estimates. For example, self-expression explains 58.44% of the total variability in the scale. The table 3 shows that the AVE's are greater than the inter-construct squared correlation estimates which supports discriminant validity. Therefore, with respect to the hypothesis H1b the factors of the Digital usage motivation scale have been found to be reliable and valid.

Measurement Invariance

Measurement invariance is the statistical property of a measurement which indicates that the same underlying construct is measured across the groups. Or, supports the statement that same hypothesis holds true across the groups (Cheung and Rensvold, 2002). There are essentially four levels of measurement invariance and each of these levels builds upon the previous by introducing additional equality constraints on model parameters to achieve stronger forms of invariance (Sass, 2011). As each set of new parameters is tested, the parameters known to be invariant from previous

Table 3
Showing Squared Inter-construct Correlation

Variable		Variable	Inter construct correlation	Squared correlations
Education	<-->	Self-presentation	0.257	0.066049
Education	<-->	Diversion	0.347	0.120409
Education	<-->	Entertainment	0.445	0.198025

Education	<-->	Relationship	0.501	0.251001
Education	<-->	Capital enhancing	0.333	0.110889
Education	<-->	Expression	0.411	0.168921
Self-presentation	<-->	Diversion	0.44	0.1936
Self-presentation	<-->	Entertainment	0.41	0.1681
Self-presentation	<-->	Relationship	0.384	0.147456
Self-presentation	<-->	Capital enhancing	0.303	0.091809
Self-presentation	<-->	Self-expression	0.566	0.320356
Diversion	<-->	Entertainment	0.594	0.352836
Diversion	<-->	Relationship	0.478	0.228484
Diversion	<-->	Capital enhancing	0.199	0.039601
Diversion	<-->	Self-expression	0.507	0.257049
Entertainment	<-->	Relationship	0.491	0.241081
Entertainment	<-->	Capital enhancing	0.222	0.049284
Entertainment	<-->	Self-expression	0.462	0.213444
Relationship	<-->	Capital enhancing	0.155	0.024025
Relationship	<-->	Self-expression	0.574	0.329476
Capital enhancing	<-->	Self-expression	0.38	0.1444

levels are constrained. Thus, the process of assessing measurement invariance is essentially the testing of a series of increasingly restrictive hypotheses (Byrne, 2001). We tested for invariance by gender using the male (n= 309) and female (n=395) subsamples, and by educational backgrounds with rural (n=392) and urban (n=225) and semi-urban (n=87) subsamples.

With respect to H1c, measurement invariance has been established with respect to gender and residential background. Table 4 and 5 shows the results from the analysis of measurement invariance by gender and residential background. It shows the various kinds of models that have been compared. Table 4 and 5 indicates satisfactory measures for establishment of metric invariance with regard to both variables suggest the same construct is measured across groups and that the units of the scale are the same. Thus, the relations between the factors can be compared across groups (Sass, 2011).

Table 4
Measurement Invariance Test Results with regard to Gender

Model	df	x2	Model comparison	Δ df	Δ x2	CFI	ΔCFI
M1 (Configural)	248	433.258				.959	
M2 (first order factor invariance)	259	447.627	M2-M1	11	14.369	.958	-.001
M3 (Metric)	263	451.900	M3-M2	4	4.273	.958	.000
M4 (Scalar)	269	458.487	M4-M3	6	6.587	.958	.000
M5 (residual).	276	474.612	M5-M4	7	16.125**	.956	.-002
M6 (Measurement residuals)	295	501.483	M6-M5	19	26.871	.955	-.001

Table 5
Measurement Invariance Test Results with regard to Residential Background.

Model	df	x2	Model comparison.	Δ df	Δ x2	CFI	ΔCFI
M1 (Configural)	419	644.866				.950	
M2 (first order factor loadings)	430	659.864	M2-M1	11	14.998	.949	-.001
M3 (Metric)	434	662.171	M3-M2	4	2.203	.950	.001
M4 (Scalar)	440	669.263	M4-M3	6	7.092	.950	.000
M5 (residual).	447	683.964	M5-M4	7	14.701**	.948	-.002
Measurement residuals	466	707.175	M6-M5	19	123.211	.947	-.001

Gender Differences in SDUMS

Table 6 show gender differences in ICT usage. Males and females differ on first order motive factors of 'capital enhancing', 'self-presentation' and education; also on second order motive factors of socialising. It can be concluded from mean scores of males and females that males prefer 'capital enhancing', 'self-presentation' and 'socialising' use of ICT as compared to females. Whereas females prefer using ICT for educational purposes. Therefore, the hypothesis H3 stands.

Table 6
Results of the Independent Samples t-tests carried out to determine Gender Differences in terms of the Student uses and motives for ICT

	Gender	N	Mean	SD.	t.
Capital-enhancing	Male	309	4.6019	3.41218	2.961**
	Female	395	3.8405	3.35200	

Self-presentation	Male	309	5.6742	3.47204	7.529**
	Female	395	3.6413	3.65888	
Education	Male	309	14.4660	5.12091	-3.286**
	Female	395	15.7595	5.23172	
Socialising	Male	309	20.2477	8.05774	3.762**
	Female	395	17.9249	8.22317	

Rural-urban Differences in SDUMS

Residential background forms an important context in understanding ICT related behaviour in Indian society. There is huge digital divide between rural and urban areas in India. Table 7 indicates that there is a significant difference between ICT usage motives of rural, urban and semi urban students. Urban students are more like to use ICT for instrumental and mood managing functions. No significant difference was found in socialising motives. Therefore, H4 stands.

Table 7

Differences in ICT usage motivations by Residential Background

	ANOVA					Post Hoc (LSD)		
	Group	N	Mean	SD.	F	Group	Group	Sig
Education	Rural	392	14.5561	5.35272	7.839**	Rural	Urban	000
	Urban	225	16.2667	5.08060			Semi-urban	.240
	Semi-urban	87	15.2759	4.50759		Urban	Semi-urban	.129
Entertainment	Rural	392	9.1352	4.59173	10.185**	Rural	Urban	.000
	Urban	225	10.9200	4.84794			Semi-urban	.303
	Semi-urban	87	9.7126	5.02993		Urban	Semi-urban	.044
Instrumental	Rural	392	18.9133	7.23360	3.216**	Rural	Urban	.014
	Urban	225	20.3200	6.58697			Semi-urban	.971
	Semi-urban	87	18.9425	5.49282		Urban	Semi-urban	.111

Mood-management	Rural	392	19.0658	8.38463	4.462**	Rural	Urban	.003
	Urban	225	21.1422	8.33170			Semi-urban	.632
	Semi-urban	87	19.5402	8.24876		Urban	Semi-urban	.129

Socio-economic status and SDUMS

Table 8 shows correlation between variables of the study. It indicates that parental education and economic status are significantly correlated with ICT usage motivation for education, entertainment, and relationship. This high correlation supports the hypothesis that socio-economic status plays an important role in ICT usage motivation. As the socio-economic status improves people tend to use ICT more instrumentally.

Table 8
Correlations between ICT usage motivation Variables and Socio-economic Status.

		1	2	3	4	5	6	7	8	9	10	11	12
1.	Education	1	.324**	.233**	.186**	.263**	.290**	.876**	.340**	.377**	.404**	.182**	.172**
2.	Entertainment		1	.172**	.345**	.481**	.348**	.332**	.855**	.457**	.367**	.168**	.165**
3.	Capital enhancing			1	.232**	.147**	.286**	.673**	.185**	.275**	.125**	-.042	.063
4.	Self-presentation				1	.356**	.442**	.257**	.407**	.768**	.315**	.030	.054
5.	Diversion					1	.384**	.273**	.866**	.492**	.404**	.053	.021
6.	Self-expression						1	.362**	.426**	.798**	.442**	.042	.032
7.	Instrumental							1	.351**	.423**	.369**	.120**	.163**
8.	Mood management								1	.552**	.449**	.126**	.105*
9.	Socialising									1	.756**	.076	.075
10.	Relationship										1	.107*	.088*
11.	Parental education											1	.580**
12.	Economic status												1

Correlation is significant at the 0.01 level (2-tailed).
Correlation is significant at the 0.05 level (2-tailed).

Discussion and Conclusion

As ICT use motivation vary from culture to culture, it has been observed that most of the research conducted on ICT use motivations has been restricted to western societies (Roy, 2009). As use profile is influenced by culture gender and ICT development index (ITU, 2016), ICT use profile of Indian users needed to be properly researched (Roy, 2009). Given, the lack of research in Indian context this study aims to fill this gap. The study presents psychometric properties of SDUMS in Kashmiri Indian context. This scale will help in identifying individual differences in students ICT related behaviour. With the current

magnitude of ICT adoption among students population it becomes increasingly important to accurately portray individual differences in ICT related behaviour. The scale has been observed to have good psychometric properties like reliability and validity.

Taking clue from social cognitive and U and G approaches the scale has seven first order factors with sound reliability measures as education, capital enhancing, relationship, self-presentation, self-expression, diversion and entertainment. The scale has three second order factors as instrumental, socialising and mood management. The final scale has a total of 18 questions with seven point like rt scale ranging from never to very frequently.

Establishment of configural, metric and scalar invariance with regard to gender and residential background suggest the same construct is measured across groups and that the units of the scale are the same. Based on these results, the relations between the factors can be compared across groups (Vandenberg and Lance, 2000; Sass, 2011).

ICT in developing countries like India can bridge socio-economic divides and empower the marginalised, including women and minority groups (Khan, and Ghadially, 2010). However, a successful utilisation of the ICT depends upon the assumptions that digital technologies are designed and set up in ways that are supportive of gender and cultural differences. Without regard to the social context in which ICTs are expected to operate, they can amplify the existing economic, political and social inequalities. Awareness of the gender dimension of access, need and use of information technologies is also crucial for an effective deployment of new technologies to ensure that girls and boys benefit equally from the tremendous potential of the ICT (Best and Maier, 2007).While initially the focus of research was to understand the difference in the magnitude of online behaviour based on gender (Bimber, 2000) now research suggests that such difference in terms of magnitude may no longer exist (Ono and Zavodny, 2003). Therefore, researchers (see Wasserman, and Richmond-Abbott, 2005; Imhof, Vollmeyer, and Beierlein, 2007) started looking into variety of use in ICT. In this connection, this study distinguishes between ICT usage motivation between males and females. Males use ICT more for self-presentation and capital enhancing whereas females use ICT more for educational purposes (Selwyn, 2008). We also found that females use ICT less for socialising than do males. These findings further add to earlier studies like Weiser's (2000) found that women use it mainly for interpersonal communication and educational assistance.

With technologies becoming cheaper, ICT at present is being widely used for various purposes in developing countries like India, despite the urban-rural digital

divide. Although, some studies claim that ICT penetration is increasing rapidly in India and the influence of demographic variables like residential background on ICT behaviour of students has significantly diminished (Kumar, 2012). But, India ranked low at 138th in 2016 and 135th spot in 2015 on IDI (ICT development index) out of 175 countries according to an international ITU report (ITU, 2016). Despite low IDI, people in India have shown increasing dependence on internet resources from last decade, computer technology in India has become an almost integral part of college and university education (Kumar, 2012). India being a country dominated by a major rural population, rural urban divide forms an important context while discussing ICT related issues in Indian society (see also Sampat Kumar, and Basavaraja, 2016; Rao, 2005).Therefore, it becomes increasingly essential to explore and understand ICT usage motivations of rural and urban students to effectively cater to their ICT related needs. The study evidenced that there are rural urban differences in ICT usage motives. People from urban students have been distinguished from their rural and semi-urban counterparts by their more pronounced use of ICT for instrumental and entertainment purposes.

Socio-economic status which was calculated based on economic and educational status of parents positively correlated with ICT usage motivation for education, capital enhancing and entertainment. Whereas it was not significantly correlated with other ICT usage motivations. It could be understood that as socio-economic status improves students tend to use ICT more instrumentally. As it has been earlier established that there are social class differences in ICT usage motivations. These differences widen the definition of digital divide as a particular kind of ICT usage or attitude put people at a relative advantage or disadvantage than others (DiMaggio and Hargittai, 2002; Hargittai, 2008). Using ICT more instrumentally is a kind of culture capital shared by people with better socio-economic status, which puts them at relative advantage than those from lower ranks (Selwyn, 2004; Tondeur, Sinnaeve, Van Houtte and van Braak, 2011). If this form of digital divide goes unattended in educational settings, it will significantly accentuate the hitherto social distinctions. If the differences in expected outcomes are not taken into consideration, the problems of social and digital inequity may worsen by creating unequitable educational conditions.

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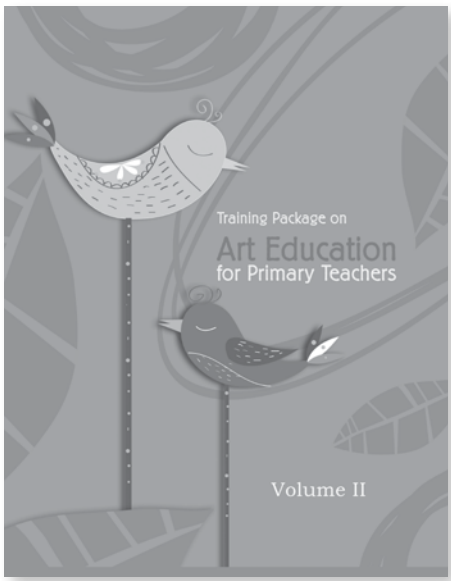
Annexure 1 SDUMS

Label	Statement	Never	Almost never	Very rarely	Rarely	Often	Frequently	Very frequently
	I use ICT.....							
	Instrumental usage							
EDU1	to find information related to my course.							
EDU2	to find information related to current events and happenings.							
EDU3	to finish my classroom assignments & projects.							
EDU4	to learn new things.							
CE1	to seek information from government offices related to the working of public policies, schemes and programmes.							

CE2	to communicate with job providers for my better job placement.							
	Socialising							
REL1	to communicate, chat and maintain relationship with friends and classmates							
REL2	to communicate, chat and maintain relationship with close relatives, kins etc.							
SP1	to upload and share my personal activities, photos/videos etc.							
SP2	for posting and updating information about myself on social networking portals.							
SE1	to share information, videos, images, texts which I consider important.							
SE2	to share information/videos/images for public awareness.							
	mood management							
DV1	to engage myself with internet when I feel emotionally disturbed.							
DV2	to engage myself with internet when I feel lonely.							
DV3	to release stress							
ENT1	for downloading and watching music / videos/ movies.							
ENT2	to entertain myself.							
ENT3	to play games.							

**All* items are positive with never =0 and very frequently =6



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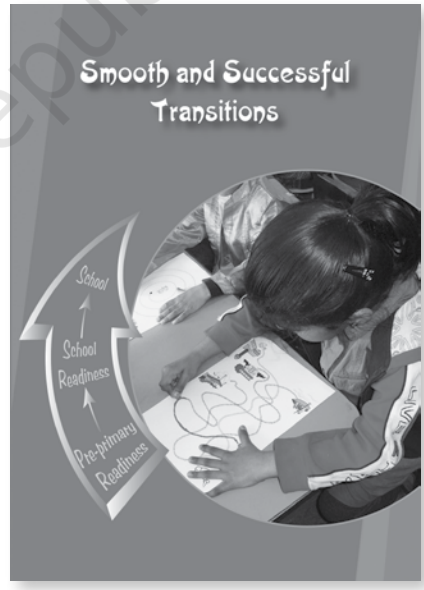

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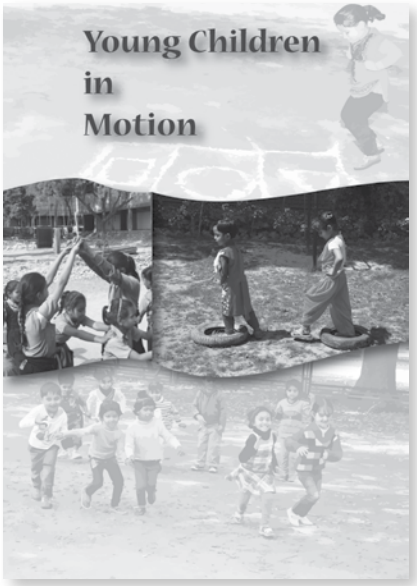

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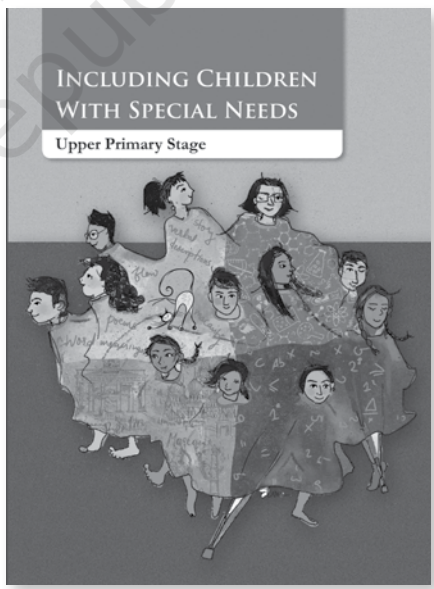

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