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एन सी ई आर टी
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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

It is an accepted fact that education is a dynamic process. The changes it witnesses may be in the form of curriculum, the teaching-learning process, assessment, roles and responsibilities of teachers, student behaviour, the needs of community or society and their involvement, and so on. We have been witnessing these changes through different schemes and programmes initiated by the Government, and in fact, these schemes and programmes are meant for the ultimate aim of improving the quality of our education system. But in spite of all these programmes, we have been criticised for our inability to accept the changes and implement it in the right direction with committed efforts. The teacher, the student, and the community being the three decisive stakeholders involved in the process of education, they need to be proactive in order to ensure qualitative changes in our education system. This issue of the *Journal of Indian Education* discusses aspects such as pedagogy, assessment, the learning process, community involvement, Information Communication Technology, leadership and so on. It contains a broad spectrum of papers covering the different themes mentioned above. Some of the papers provide solutions to the challenges faced by the system, based on empirical evidences collected from different stakeholders. There are theoretical papers written by the practitioners based on their experiences and reflections.

Positive Education—that is blending the academic learning with the well-being and mental health of the pupil has been discussed by all policies and programmes of education. The first article in this issue by Meenakshi Girdhar explores the concept of Positive Education and shows the importance of inculcating the Positive Education Approach in the Teacher Education programme. Bushra Sumaiya and Aejaz Masih in their article discuss why and how students' learning engagement can be considered as an integral part in the process of ensuring quality in education. They point out that students' learning engagement should be made an essential component of the enacted school curriculum. A. Ananda Kumar and K. Chellamani talk about the importance of preparing quality teachers through self-regulation practices in Teachers' Education programme. The paper delineates the scientific factors involved in the construction of self-regulated behaviours between student and teachers.

Kashyapi Awasthi deliberates on the idea of Continuous Professional Development (CPD) which can make teachers responsible and aware about their own professional development. The paper also looks into the idea of developing teachers as reflective practitioners through the formation of Professional Learning Communities (PLCs). Priya Srivastava's article talks

about the importance of including entrepreneurship education in mainstream education. Her idea is that through entrepreneurship education, one can nurture creativity, a spirit of innovation, motivation to find better alternatives, responsiveness for advancement and growth.

An empirical paper by Manisha Yadav and Mansi Aneja explores the dilemmas and challenges faced by school teachers in their everyday professional life. The study reveals that a teacher's job is extremely stressful, involves critical decision making on a daily basis, and is often a non-rewarding endeavour. Innovation in teaching and assessment has been considered as an important characteristic of a classroom practitioner. Animesh Kumar Mohapatra and Anirban Roy report the result of a study, in which they used drawing skill and mental images as an assessment and learning tool for Class X students for teaching the anatomy of the human digestive system.

Manoj Praveen G. and Liji M., in their study point towards students experiencing tension, nervousness and shyness due to English language anxiety. The study reports that there is significant difference amongst the students in determining English language anxiety. Hem Raj and Fatma Gausiya focus on understanding the teacher-taught relation at the elementary school level. They point out that the teacher-taught relationship is important for children to achieve better academic results in their study. The paper by Deepty Gupta and Gaurav Singh studies the competency of Teacher Educators and student teachers to use various E-learning tools during transaction. The study reveals the sorry picture of the situation that most of the Teacher Educators and student teachers lack the requisite competency in using the different E-learning tools available. Preeti Priyadarshinee and Gowramma I.P in their empirical paper examine the effectiveness of School Management and Development Committee (SMDC) by assessing the awareness level of SMDC members regarding their roles and responsibilities. The study highlights the importance of organising orientation and capacity building programmes for the SMDC members.

We hope that our readers would be able to relate their personal experiences with the issues and concerns discussed by the authors of these articles and research papers presented in the current issue. We look forward to your suggestions and comments on the different issues of *JIE*. We also look forward to your contribution in the journal by sharing your knowledge in the form of articles, action research reports, theoretical papers, book reviews, etc.

Academic Editor

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Teacher Education within the Peripherals of Positive Education

Meenakshi Girdhar*

Abstract

Positive education has a mandate for academic skill development, complemented with approaches that nurture well-being and promote good mental health. It is an added boon in the field of education which aims to churn out a healthy society, procuring the well-being of all its citizens. In the present paper, the author has set out to uncover the threefold aspect, discussed as follows.

- *To explore the concept of positive education*
- *To strengthen the justification and need of imbibing positive Teacher Education in teacher education programme, and*
- *To explore out sub-dimensions of positive Teacher Education (influenced from Geelong Grammar School's Model of Positive Education) with a purpose to get a pilot project done in the field of Teacher Education in India.*

Introduction

With an increased access to resources, along with an abundance of knowledge, the sources of stress and tension have also risen all around, raising the anxiety level among the human population. With the passage of time, and development in areas such as technical, corporate, business, crafts and medicine, the human species has succeeded in gaining control on most aspects of a rich and lavish living. However, we can see destruction too—manufacturing of new weapons, the prevalence of fear and insecurity among masses throughout the world. Could one think about the development of human species in such an environment?

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Can one really talk of growth of individual in such unpleasant circumstances?

The goal seems to be challenging but not impossible to achieve, courtesy the youngest branch of psychology namely, positive psychology and its application in the field of education, popularised with the nomenclature of 'Positive Education'. Even the National Policy of Education (1986) asserts keeping in mind the challenges of the future generations—'life in the coming decades is likely to bring new tensions together with unprecedented opportunities. To enable the people to benefit in the new environment will require new designs of human source development...They have to be imbued with a strong commitment to humane values and to social justice' (p. 4).

Positive Psychology

It is well-recognised that in the current scenario, sound health and wholesome development is not limited up to the old rubric walls of the developed notion of absence of pathology and illness only, but adds more dimensions to its wings (Keyes 2006). Now, the presence of well being is not discussed in relation to the absence of illness, but evolution of a scientific inquiry, trekking out the optimal functioning of human being (Rusk & Waters 2013). Since the developmental studies point towards an increased level of mental health difficulties in the period of adolescence and transition to adulthood (Sawyer et al. 2000), what should be the action plan for the implementation of these practices among the masses and in particular, the young generation?

Initially, Applied Psychology was introduced with a focus on exploring, diagnosing, and providing preventive remedies for human suffering, ailments, and developmental psychopathologies (Masten & Cicchetti 2010). Although the findings produced in accordance with psychological enquiry have been largely appreciated for their significant works, yet, Seligman (2006) pointed it out as 'half-baked psychology', where 'curing the negatives did not produce the positives' and where relieving miseries and accommodating deficiencies was too often disconnected from 'find[ing] what is best in life and liv[ing] it accordingly (pp. i–ii). Since more than a decade and a half, the practitioners in Applied Psychology, the various scholars, and psychologists are trying to 'bake' the heretofore 'unbaked' aspect, and have explored out a newly dawned sub-system, namely, positive psychology, accounting for cultivation and promotion of human character strengths, all-round development, and well-being of the individual (Lopez & Snyder 2009).

Positive Education: An Added Wing to the Feather of Positive Psychology

Positive psychology focuses on the wholesome development and well-being of individuals through

some defined traits or characteristics in a very scientific approach. In the work done by Peterson and Seligman (2004), certain positive traits, namely, 'virtues' or/and 'character strengths' have been discussed, but are majorly adhered and concerned with the adult population of the society (Schreiner, Hulme, Hetzel & Lopez 2009). Subsequent to the work done for the adult section of the society, the psychologists from different fields (developmental, clinical, school, and educational) too focused to bring out similar positive traits or phenomenon among the young generation (Gilman, Huebner & Furlong 2009). According to Kirschman, Johnson, Bender and Roberts (2009), the various initiatives taken by positive psychologists under different themes, to say, strength-based approach programme, resilience study, positive youth development programme, somehow reflect a thematic overlap with a comprehensive and holistic emerged vision of positive psychology. This defends and lays out the positive development of adolescents in different sectors (cognitive, social, emotional, and behavioural functioning) across various stages of development (early childhood, later childhood, adolescence, adulthood) surrounding various developmental contexts (home, school, and community settings). To cater to the needs of the young generation of the society, a new sub-division of Applied Psychology, accounting for the practice and application of concepts of positive psychology in educational settings is emerged as 'Positive Education' (Green, Oades, Robinson & Spence 2011).

Defining Positive Education

Seligman (2011) defines Positive Education as traditional education focused on academic skill development, complemented with approaches that nurture well-being and promote good mental health. In addition, the significant and transformative contribution exerted by best practicing teaching and educational theories could be acknowledged in the process of applying principles of positive psychology in educational contexts. Thus, Positive Education could more be completely described as bringing together the science of Positive Psychology with best teaching practices to encourage and support schools and individuals within their communities, to flourish.

Park and Peterson (2009) assert that 'most character education programmes focus on rules, per se (what to do or not to do) and not on students who are urged to follow these rules' (p. 66). To cast optimal growth of the human and to promote it, flourishing is the key hold focal point of Positive Education in school settings along with best teaching-learning paradigms and educational practices.

The fundamental goal of Positive Education is to promote flourishing or positive mental health, aiming

for a quality life within the school community. Exploration of what it means to live a quality life is frequently characterised as being constant with one of the following two philosophical traditions: the hedonic approach and the eudemonic approach (Deci & Ryan 2008). The theoretical background of the hedonic philosophy surrounds the principle of maximum pleasure. Hedonism is a philosophical school of thought that focuses on feelings and experiences (Keyes & Annas 2009), and is often associated with the maximisation of pleasure and the minimisation of pain (Ryan & Deci 2001). From this point of view, a quality life is one where an individual frequently experiences positive emotions, and feelings of happiness and satisfaction. Eudaimonia as a philosophical tradition posits that happiness results from the actualisation of individual potential and from fulfilling one's *daimon* or true nature (Deci & Ryan 2008). Where hedonic philosophy focuses on how an individual feels, eudemonic philosophy focuses on what the individual does, how one acts, and makes the choices (Keyes & Annas 2009). The eudemonic philosophy states that an individual's psychological health incorporates more than feeling of happygoing, and encompasses the virtues of personal growth, ethical values and social contribution (Ryff & Singer 2008).

Recently, it has been recognised that for a sound psychological health, both hedonic and eudemonic philosophies are equally significant (Keyes & Annas 2009). Therefore, in contemporary literature, flourishing has been defined as a combination of hedonic and eudemonic elements to create a comprehensive and holistic approach. For example, Keyes (2002) defines flourishing as comprising three components: emotional (hedonic) well-being or having positive feelings about oneself and life; social well-being, which inculcates the feelings of being connected to others and valued by community; and psychological (eudemonic) well-being that focuses on functioning well. Seligman (2011) proposes five elements of optimal well-being: positive emotions, positive engagement, positive relationships, positive meaning, and positive achievement. Similarly Diener et al. (2010) define flourishing as a psychological construct that includes having rewarding and positive relationships, feeling competent and confident, and believing that life is meaningful and purposeful.

While each of the above definitions takes a slightly different approach, the common element among all stated elaboration is the recent conceptualisation of flourishing, which recognises that optimal well-being is a multidimensional and holistic component. It includes both hedonic (positive emotions and emotional stability) and eudemonic (self-esteem, growth, meaning) approach. Both these components are well reflected in the Geelong Grammar School Model of Positive

Education, where flourishing is seen to characterise both 'feeling good' and 'doing well' (Huppert & So 2013).

Justification of Inclusion of Flourishing in Academic Settings

Schools are one of the basic and central units to students' overall development (cognitive, conative, and affective); therefore a whole school vision, approach and commitment is imperative to cherish and nurture an enriching environment for cultivating the individual's well-being. The curricula prevalent in schools is a blueprint of the future society and it is one of the best platforms to churn out the dream social paradigm while nurturing, and moulding the vision of tomorrow. Suldo, Thalji, and Ferron (2011) assert that the young adolescents who seemed to be having no diagnosable disorder may nevertheless not be functioning at their optimal level. Laying out a strong foundation of well-being, and optimising both physical and mental immunity of the individual against the problems and alarming issues at an early stage of development is the need of the hour.

Of all the stages of development, adolescence is a crucial stage, since it shoulders and projects the individual's future lifestyle or 'art of living'. The importance of focusing on flourishing is also important because adolescence is the threshold for the individual's functioning over lifetime. Paus, Keshavan, and Giedd's (2008) findings reveal that adolescence is the onset stage of depression; shifting from adulthood (Weissman 1987 & Lewinsohn et al. 1993), and stage of emergence for mental illness, and the frequency of mental health problems, especially, anxiety and depression are reported to be consistently higher in adolescents (Sawyer et al. 2000).

The students having greater well-being have positive results in academics and achieve higher scores. The findings of a longitudinal study state that such learners have minimum rate of school absences (Suldo et al. 2011). In another study done by Howell (2009), it was indicated that flourishing learners have reflected better scores, higher self-control and lower procrastination in comparison to the ones with moderate mental health or languishing. Individuals with positive emotions reflect broad, open-mindedness and creative thinking whereas persons with negative emotions are restricted to focussed and narrow attention (Fredrickson 2001; Fredrickson & Branigan 2005). In addition to the above, individuals using their strengths are reported with higher grades of vitality and subjective and psychological well-being (Govindji & Linley 2007, Linley et al. 2010), enhancement in progression rate towards their goals (Linley et al. 2010), and increased resiliency after successful events (Peterson & Seligman 2004). Studies from the concerned literature also show a strong association between children's practice of their strengths,

and their well-being and healthy development (Park & Peterson 2009). Hence, flourishing can be thought of in terms of a complementary agent rather than of a competing one in an individual's growth.

Well-being is synergistic with better learning. Increase in well-being is likely to bring about more learning, which is the traditional goal of education. Also, a positive mood produces broader attention (Fredrickson 1998; Bolte et al. 2003, Fredrickson & Branigan, 2005, Rowe et al. 2007), and enhances creativity (Isen et al. 1991, Kuhl 2000).

Need of Imbibing Positive Education in Teacher Education

According to the National Policy of Education (1986), ' … a human being is a positive asset and a precious national resource, which needs to be cherished, nurtured, and developed with tenderness, and care, coupled with dynamism' (p. 2). Also, the Right to Education (2009), vide section 29(2), emphasises the 'all round development of the child'. But the question is—what are the means to achieve this aim?

To answer the above, the NPE (1986) mentions that 'the status of the teacher reflects the socio-cultural ethos of the society; it is said that no people can rise above the level of its teachers' (p. 31). Teachers play the important role of transmitters, inspirers, and promoters of man's eternal quest for knowledge. It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity, and teacher motivation (NCFTE 2010, p. 1). This role expectation be not taken as a rhetoric but as a goal to be constantly striven for (NCFTE 2010, p. iii).

The special intergovernmental conferences, convened by the United Nations Educational, Scientific and Cultural Organization (UNESCO), in cooperation with the International Labour Organisation, Paris, 5th October, 1966 proposes a solution for the upgrade of the teachers, which is penned down as follows.

- It should be recognised that advance in education depends largely on the qualifications and ability of the teaching staff in general and on the human, pedagogical, and technical abilities of the individual teachers.
- Teachers' organisations should be recognised as a force which can contribute greatly to educational advance.

The importance of the role of the teacher as an agent of change and as a facilitator to promote social acceptance, understanding and tolerance, has never been more significant than in the contemporary scenario. The need for shift, from the boundaries of narrow nationalism to universalisation, from ethnic and cultural prejudice to tolerance, understanding and pluralism, and from autocracy to democracy in its various manifestations places enormous responsibilities on teachers

who participate in the moulding of the characters and minds of the new generation.

With a clear notion of the teacher being the important catalyst in human development along with the occurred changes in social and cultural norms, the role and responsibilities of today's teachers also require modifications. Even the National Curriculum Framework of Teacher Education (2010) claims that 'the expectation of the school system from a teacher. changes from time to time, responding to the broader, social, economic, and political changes taking place in the society' (p. 2). Therefore the current pedagogy for teacher training must also be equipped to tune up with the paramount shifts.

In the above line of action, the NCFTE (2010) opens with the very statement of 'developing professional and humane teachers', along with few other assertions as follows.

- Teachers need to be prepared to build a better world, …, and zeal for social construction (p. 20).
- Every child needs to be aware of the importance of healthy living … It is suggested that comprehensive, systematic, and scientific approaches to health education and health awareness be included in teacher education curricula. The context proposed include: personal and environmental hygiene, family and school system …. Mental health … (p. 29).

With the recommendations and viewpoints of different scholars, policy documents and commission reports, one can summarise that teachers hold the centre stage to attain the wholesome development of the human being, and it is high time to upgrade them with desired moderations. Along with the aforesaid role of teachers in building tomorrow's society, the teacher's personality makeup plays an important role in the student's overall growth and development. Singh and Walia (2004) in one of their research work found that a teacher with poor mental health not only tends to incapacitate himself for the performance of his multifarious duties in the school but also creates difficulties and problems for the students.

In one of their works, Dongxian, Shufen, and Guoliang (2008) stated that the individual factors related to teachers influence their work and also bring out deep and everlasting impacts on the learners' development. The psyche of the teacher impedes one's cognitive, emotive, and behaviour systems as well as imposes direct and indirect influence on students too. Teachers play a unique and important role in addressing and augmenting students' mental health in and across the formal classrooms. Being a teacher is a challenging task, especially in the context of rapidly changing scenarios. With an increased number of mental disorders among youth, it is high time that the educators command the situation and

address the issue in and beyond the classrooms. Teachers are the most influential and significant agents contributing to the behaviour of students, further indicating towards increased responsibilities of teachers to shoulder emotional stability and a healthy attitude towards life (Panchaiyappan & Raj 2014).

Producing 'Flourished Teachers' through Positive Teacher Education Programme

Understanding the need to conceive a healthy society, a model of 'Positive Teacher Education' can be initiated following the framework of 'Positive Education' being practised successfully since the last decade in Geelong Grammar School (hereafter GGS), Australia. GGS, the founder institute of Positive Education proposed a model in 2008 under the supervision of Dr. Martin Seligman and his team stating a three-tier procedure of 'live it', 'teach it', and 'embed it'. The above programme of action in positive Teacher Education through character strengths is embedded in a way that the core objectives of Teacher Education are accomplished in integration with promotion of culture and well-being across the school community.

The proposed six domains of positive Teacher Education have been discussed briefly as follows.

Positive emotions

Being high in positive emotions intends one's capability to anticipate, initiate, experience, and prolong the experiences of joy, hope, gratitude, and inspiration. The Broaden and Build theory given by Fredrickson (2001, 2004) explicates how future success is associated with positive emotions, with the help of two different but related hypotheses. The premier, broaden hypothesis states that positive emotions broaden attention, and the build hypothesis affirms that increased attention accelerates the engagement with the environment, catalysing resource procuring over the time. Fredrickson (2001, 2004) hypothesises that negative emotions are perceived to be threatening in nature leading to a narrowed attention and assisting individuals towards repelling, fleeing, or attacking. Whereas, in contrast to above, positive emotions help in widening focus and directing to creative, broad, and flexible thinking (Fredrickson & Branigan 2005, Isen, Daubman & Nowicki 1987). The second hypothesis of the theory talks about increased interaction with the environment, further leading to augmented capacity to flourish, cope with challenges, capitalize on opportunities, and deal with adversity (Fredrickson 2009). Lyubomirsky, King and Diener (2005) in their study found that positive emotions have benefits for the individual's mental and physical health, psychological well-being and social relationships.

Fredrickson (2004) supports the necessity of experiencing all emotions for human well-being, without

suppressing negative emotions. As Held (2004) proposes the notion that experiencing positive emotions continuously may lead to development and maintenance of positive moods without sensing out the natural occurrence of variation in human's emotional experiences. According to Ben-Shahar (2007), individuals must be set free to experience the whole gamut of human emotions. Adhering to the idea, Fredrickson (2009) proposes that one should not stick to positive states too tightly, but instead, to build up the frequency of positive emotions throughout the day, through savouring (Bryant 2003, Quiodbach et al. 2010) and gratitude (Wood, Froh & Geraghty 2010).

To delve out positive emotions in the proposed plan of action, the teacher trainee may keep a memoir of the following activities on a regular basis along with their other scholastic and co-scholastic commitments.

- Mapping out one's own emotions (both positive and negative) in the last twenty four hours and penning them down
- Categorising the emotions they would like to foster more in their lives
- Fostering the activities or experiences which evoke positive emotions

Positive engagement

Being positively engaged implies leading a life rich with interest, absorption, curiosity, and pursuing one's goals with all vigour and determination. Engaged individuals are perceived to be highly curious (Kashdan, Rose & Fincham 2004), interested (Hunter & Csikszentmihalyi 2003), and passionate about worthwhile pursuits (Vallerand et al. 2003). According to Shernoff et al. (2003), engagement consists of three clauses: concentration, interest, and enjoyment. Another concurrent concept related to positive engagement is 'flow', elaborated as intense absorption in facing intrinsically motivated challenges, matching to individual skill level and task complexity. Bakker (2005) defines flow as a peak experience of engagement when individual is fully immersed, energised, and focused.

However, it is worthwhile to consider that activities being carried out must have beneficial and worth-while outcome while fostering student engagement, as one may experience concentration, interest, and enjoyment in detrimental activities as well. Keeping the same notion, Vallerand et al. (2003) have outlined adaptive (evoking harmonious passion) and detrimental (evoking obsessive passion) activities.

Bakker (2005) found that teachers' experiences of flow, engagement, and intrinsic motivation are well associated with students' engagement, absorption, and enjoyment. To promote teachers' positive engagement,

Csikszentmihalyi et al. (1997) have proposed the following three strategies.

- Encouraging teachers to nurture their interests and passions
- Imbibing the habits of intrinsic rewards (satisfaction) in comparison to extrinsic rewards (grades)
- Giving a learning feedback rather than a performance feedback

Leading a life engulfed with engagement, interest, and absorption is itself a worthy goal (Nakamura & Csikszentmihalyi 2005). Studies have proved that positive engagement has important causal relationship with well-being (Froh et al., 2010), academic performance (Shernoff et al. 2003; Schueller & Seligman 2010), and mental health (Kasser & Ryan 1996).

Positive accomplishment

It is stated in terms of the individual's potential through attaining meaningful outcomes, while being proactive in value-oriented goals. It seeks for never ending motivation to face challenges and setbacks, and craves for competence and success in life domains. The significant key feature in positive accomplishment is one's orientation towards meaningful goals. As stated by Lopez et al. (2004), a goal is 'anything that an individual desires to experience, create, get, do, or become' (p. 38). Goals could be short term (accomplishing daily-chores), as well as long term (succeeding in career). Goals are perceived to be highly powerful motivators since goals work as a catalyst in self-regulation, effective planning, and mobilisation of resources (Covington 2000). And the salient features of highly motivating goals are often embedded with mnemonic 'SMART'; specific, measurable, attractive, realistic, and timely (Hassed 2008). Goals are perceived to be integral to the positive accomplishment, providing mental signs which guide sustained cognitive and behavioural efforts (Covington 2000).

To cultivate positive accomplishment, the literature of Positive Education being practised in Geelong Grammar School suggests the following activities—

- assist in developing self-concordant goals.
- help nurture mastery goals and growth mindset. For example, if a teacher fails to deliver an efficient lesson plan at an occasion, this failure must not restrict her to a fixated mindset of inability to perform adequately. She/he must understand that setbacks and challenges are an unavoidable part of life and one must be persistent in continuing one's efforts towards mastery goals.
- nurture hope, being excited about future outcomes.

Goals are highly payable in terms of motivation, when goals are self-concordant and are parallel to individual's intrinsic belief system (Sheldon & Elliot 1999). Positive

accomplishment is closely in sync with Dweck's (2006) theory of intelligence, and Snyder's theory of hope, leading the individual to counter the challenges boldly. It is perceived that through nurturing hope in individuals, element of prudency is introduced among them, further helping them to accept challenges and setbacks as integral part of life, and developing grit and resilience, when times are tough (Snyder et al. 1997).

Positive purpose

Having positive purpose in life induces an understanding of serving something greater than your own self and being involved in activities voluntarily for the good of others. Hill et al. (2010) define purpose as a prosocial or altruistic orientation with a commitment and zeal to help others. There is a strong knit between having a purpose and having a meaning in life (Steger et al. 2008). Altruism, spirituality, and kindness are also important dimensions of a purposeful life and a significant platform for individuals' engagement.

The innate feature of contributing to the society lays down a strong rationale for introducing 'positive purpose' in the positive teacher education plan of action. Learning individuals to engage with prosocial behaviour develops a sense of community service, beneficial to them as well as the society at large (Thoits & Hewitt 2001). The positive purpose defined in the domain of positive Teacher Education stresses that flourishing in life comprises more than feeling good but also engaging in service beyond oneself that is, the eudemonic approach.

Positive relationships

Exploring the dimension of positive relationships in the model of positive Teacher Education includes strong socio-emotional skills, leading to production and promotion of strong relations with the self as well as others. An individual does not grow in isolation; a social context bears a mandatory impact on his or her upbringing (Bronfenbrenner 2005).

Social isolation is seen to be influencing depression, suicide, substance use, and other symptoms of mental disorder (Hassed 2008), whereas social support is seen to be acting as a mediator in stressful and adverse life events (the buffering hypothesis), thus contributing to coping and resilience (Cohen & Wills 1985). Family and social bonding works as a guard in times of one's distress, violent behaviours, and suicidal thoughts (Resnick et al. 1997). The supportive relations in one's society predict individual's subjective well-being (Myers 2000), and meaning in life (Hicks & King 2009). In addition to the aforesaid, healthy social relationships work as a catalyst in promoting physical health (Uchino et al. 1996).

Under the umbrella of positive Teacher Education, the following

skills have been perceived to nurture teachers' relationships:

- Emotional and social intelligence
- Active constructive responding—a response to others' good news with active, authentic, and supportive interest in order to build strong relations (Gable et al. 2006)
- Gratitude
- Forgiveness
- Self-compassion

The Teacher Education institutes can cultivate and nurture positive relationships by introducing an environment of inclusion, tolerance, and mutual respect (Osterman 2000), by inculcating the following aspects.

- Self-awareness and understanding one's emotions, values, and strengths
- Self-management of emotions and impulses, and expressing emotions accurately
- Effective communication, listening, and conflict resolution skills
- Responsible decision making and considering the consequences of one's actions

Positive health

In recent times, the focus has shifted to holistic health, where the individual is an integrated and interconnected entity (Hassed 2008). The holistic approach of health defines it as optimal physical and psychological well-being by practising sustainable habits. Positive health has a significant role to play—firstly to live an energetic, vital and resilient life, which is a must to flourishing, the ultimate goal of positive teacher education. Second, the relevance related to promoting positive health is easily marked by increased rates of anxiety, depression, and other mental problems in the population in general (Sawyer et al. 2000). Third, as most of the defined health conditions are preventable, the wider goal is to assist individuals to develop healthy behaviours that influence their life span.

Research indicates that mindfulness, optimism, resilience, and general health behaviours such as nutrition, exercise, and sleep contribute to one's positive health.

Mindfulness has been stated as devoting non-judgmental attention consciously to one's own experience at present (Melbourne Academic Mindfulness Interest Group 2006). Though the mind has a natural inclination towards future worries or disappointments of the past, but mindfulness stresses on the present, experiencing the current sensory moments, and accepting the same (Kabat-Zinn 2003).

Optimism has been defined as people's expectation about the future (Seligman 2006). It is linked with persistence in the times of failure, and resilience during disappointments (Seligman 2011). As a teacher, care has to be taken to cultivate realistic optimism, self-worth, and promising future.

Reivich et al. (2010) define resilience as the ability to thrive and bloom in case of challenges and bounce back from adversity. It enables the individual to opt for calculated risks and capitalise on opportunities.

In addition to the above stated sub-dimensions to positive health, it consists of general preventive behaviours leading to healthy growth and development. The general health behaviours include, but are not limited to nutrition, sleep, sexual health, exercise, and stress management.

Conclusion and Discussion

The notion fundamental to the concept of positive Teacher Education is to cherish the teachers for further churning out the youth of the society, since the various policy documents, reports and scholars' viewpoints indicate the importance of teachers in catering to wider audiences, thereby moving closer towards mentally and physically thriving individuals, communities, and societies. The Positive Education Model adopted by Geelong Grammar School provides a flexible framework, cultivating a holistic approach involving explicit and implicit learning in the classroom, and positive practices integrated throughout school life. It lays down the blueprint for 'humane development' within an approach towards continuous growth of all. Teachers must be first taught to experience the discussed positive strengths before transacting it in the classrooms as the teachers' community is a resource pool to channelise these traits in the larger domain of society.

Keeping the notion in mind, a pilot project may be initiated in Teacher Education in India within the framework provided by Positive Education facilitating the planning, implementation, and evaluation of knowledge derived from Positive Psychology within academic settings, providing a sustainable and flexible framework for moving towards flourishing communities.

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Searching the Missing Link for Assuring the Quality of Enacted School Curriculum

Bushra Sumaiya* and Aejaz Masih**

Abstract

Today's fast-paced globalisation has put schools under extreme pressure to transform learners into an efficient workforce and to deliver quality education and quality learning outcomes. Although rigorous efforts have been made to ensure educational quality and students' learning by prescribing an elaborate curriculum for general school education, wide gaps exist between the prescribed curriculum and how it has been enacted in schools that is, what has been stated in the face of prescribed curriculum is yet to be implemented in the true sense of the word. Although the schools and stakeholders in education are investing so much in terms of time, effort, and resources to assure the quality of enacted school curriculum, they are still in search of the missing link for assuring the educational quality. Their major concern is what more could be done to assure the quality of enacted school curriculum? The present paper proposes that the quality of enacted school curriculum could be assured by making the students' learning engagement an integral component of the learning process. Students' learning engagement is the active involvement and participation of students in learning activities of the school. It is a crucial academic construct which has great potentiality to assure educational quality and to deeply engage students in the cognitive and co-cognitive activities of the school. However, the potentiality of this construct is often overlooked during curricular transactions in the classroom. In this regard, the present paper puts forth a theoretical model for assuring the quality of enacted school curriculum through students' learning engagement.

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Introduction

Education is the process of learning and knowing, which is not merely limited to the academic curriculum. It is an ongoing process which incorporates the mutual necessities and demands of the person, the society, and the country. It is a holistic endeavour which continues throughout the individual's life and is successfully passed on to further generations through knowledge and experience. In a broader sense, education is characterised by the intellectual, moral, and spiritual development of an individual or what is rightly said as the all round development of an individual. It would not be an exaggeration to say that the existence of human beings would be worthless without education.

In the past few years, the educational scenario of our country has changed for the better. Our country has recognised education as one of the core objectives which needs to be accomplished successfully for the overall development of the nation. Rigorous efforts are in progress to expand the periphery of education, to improve educational quality, and to ensure equity and equality in providing access to educational opportunities to all the individuals in the society, irrespective of caste, class, region, religion, or race. All these efforts are majorly directed towards strengthening the foundations of education at the grassroot level that is, at the school education level.

General School Education

The education imparted during the first ten years of school has been envisaged in the national curriculum of our country as 'general education'. The aim of general education is to provide an opportunity to the students to study all the basic subjects so that they acquire knowledge and awareness of the disciplines essential for their overall development. This will help build a base for their further education as well as enable them to become mentally, spiritually, physically, and socially efficient members of the society. The structure of general education in our country is as follows.

- *Primary school*—Five years duration from standard first to fifth (for six- to ten-year-olds)
- *Middle school/upper primary school*—Three years duration from standard sixth to eighth (for 11- to 14-year-olds)
- *Secondary school*—Two years duration for standards ninth and tenth (for 14- to 16-year-olds)
- The objective of primary school is to impart an adequate level of knowledge and learning to students so that they successfully proceed from primary to middle school level. It aims to provide academic literacy (reading, writing, arithmetic) to students, develop their thinking ability, and work towards their mental, spiritual, and physical development, which is essential for their future learning.

- The objective of middle school is to acquaint students with various aspects related to the physical and living components of nature and of the society. It aims towards spiritual and moral development of students and makes them competent and skilful enough to successfully transit from middle school to high school.
- The objective of high school is to enrich the knowledge that students have acquired over the previous years of education and enhance their skills and competencies so that they either choose to continue education at the senior secondary level or move to an institute of professional education.

Quality in Education

Quality is the utmost and highly anticipated aim in any human enterprise including the field of education. Mukhopadhyay (2005) states from various authors that, quality is an optimistic thought, that can be strategically realised with meaningful investment. The Quality Council of India Report quotes from an author that quality is 'meeting, exceeding and delighting customer's needs and expectations with the recognition that these needs and desires will change over time'. Winder (1993) says that 'quality is the ongoing process of building and sustaining relationships by assessing, anticipating, and fulfilling stated and implied needs'. Mukhopadhyay (2005) states from another author that quality being an optimistic thought, has indefinite potentialities to evolve and expand while making a progressive journey, with the aim of manifesting itself in every realm of human pursuit through clearly stated goals and plans, rather than marching towards reaching a hypothetical destination that is, perfection.

In the past two decades, 'quality' has become the epicentre of the field of education and a catchphrase for every stakeholder who aims to provide better educational services. It has transfused into almost every aspect of education, ranging from quality teaching-learning process to quality learning experiences and outcomes to total quality management (Riley 1994). One of the major concerns of the present education system is that all children, irrespective of their caste, class, region or place in the society be provided with education of a comparable quality. The immediate demands and expectations of the society, its values, beliefs, and the community concerns determine the aims of education and these aims have a deep impact on the quality of education. In terms of quality, schools aim to prepare students who aspire for higher education and successful careers, who become deep learners with the ability to transfer competencies and skills from one learning domain to another, who have exceptional reading and writing skills, who can speak eloquently, reason out things based on evidence, and can come up with novel ideas

and solutions to face challenges and complexities.

Although quality is a buzzword in the field of education, it is a relative term which lacks agreement, is difficult to be defined in few words, and is highly convoluted when aimed to be measured (Bhat 2006). Riley (1994) also states from an Organisation for Economic Cooperation and Development (OECD) report on schools and quality that rather than outlining a single definition of quality in education, the need is to understand what role contextual factors such as school community, material and human resources, curriculum, pedagogical strategies and techniques, and evaluation and assessment of students, play in improving and sustaining the quality of education. Hence, it is elusive to reach a consensus when trying to state what makes an education 'quality education'.

The United Nations International Children's Emergency Fund (UNICEF 2000), states that quality education is a complex and multidimensional concept which includes:

- 'learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
- content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;
- processes through which trained teachers use child-centred teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities; and
- outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society'.

Programmes and Interventions for Assuring Quality in School Education

Education has since long been recognised as a 'fundamental human right' which supports the enactment of all other human rights. The Universal Declaration of Human Rights, 1948 lays down in Article 26(1) that every individual has the right to education. Since then, the right to education has been given an important place in the constitutions of different nations, various conventions across the globe, and development plans.

The founding members of our Constituent Assembly also recognised the importance and significance of the right to education and placed it under the Indian Constitution. The aim of universalising elementary education was acknowledged in the

true sense of the word when the Right of Children to Free and Compulsory Education (RTE) Act, 2009 was enacted giving every child between 6–14 years of age, the right to gain admission in school to receive eight years of elementary education. The Right to Education Act, 2009 states that 'the State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine' (MHRD website).

The Central and State Governments of India have initiated a series of programmes and interventions to ensure that children receive quality education at the elementary and secondary levels of education and become better learners. These programmes aim to make school communities more inclusive and student-friendly, cater to diverse needs of each child and enhance student learning outcomes. Some of the programmes and interventions are as follows.

- A flagship programme for the universalisation of elementary education, the '*Sarva Shiksha Abhiyan*' (SSA) has been initiated with the aim to provide elementary education of a comparable quality for eight years to every child upto the age of 14 years, focusing mainly on providing quality education to the disadvantaged groups and girls. The primary interventions supported by the SSA to infuse quality in elementary education include: to revive the curriculum in accordance with the National Curriculum Framework 2005; to provide free textbooks to students from Standards I to VIII; to introduce and implement continuous and comprehensive evaluation (CCE); to facilitate teaching-learning process with the efficient use of information and communication technology (ICT); to increase the availability of teaching staff; to enhance skills and competencies of teachers through in-service training; to orient head teachers for better management of academic, financial and human resources; to establish Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs) to provide training and supervision to teachers, and to design learning enrichment programmes for improving and enhancing student learning (NUEPA 2014).
- Another flagship programme, the '*Rashtriya Madhyamik Shiksha Abhiyan*' (RMSA) has been launched with the aim to expand the accessibility to secondary education, to improve the quality of secondary education, and to ensure equity. Its vision is to assure the availability, accessibility and affordability of quality education to every young individual in the age group of 14–18 years. One of the key objectives that RMSA is working towards is 'to improve the quality of education being imparted at secondary level by making all

secondary schools conform to prescribed norms.' The primary interventions supported by RMSA to accomplish this objective include: to upgrade upper primary schools to secondary schools; to strengthen the existing government secondary schools; to open new secondary schools in areas with a majority of SC/ST/Minority population; to ensure the availability of better infrastructural facilities in schools; to recruit post graduate teachers, particularly female teachers; to provide in-service training to teachers and head teachers; to facilitate efficient use of ICT in teaching-learning; to introduce and implement continuous and comprehensive evaluation (CCE); to make certain curricular reforms, and; to provide hostel facilities for teachers in remote and hilly areas (NUEPA 2014).

Existing Gaps between Prescribed Curriculum and Enacted Curriculum of General School Education

The National Curriculum Framework, 2005 was put forward with the vision to bring uniformity in the education system of our country, work towards improving the quality of education, and cater to the diverse needs of the learners and the society. It aims to establish a 'secular, egalitarian and pluralistic society' by reforming the school curriculum to:

- 'connect knowledge to life outside the school,
- ensure that learning is shifted away from rote methods,
- enrich the curriculum to provide for overall development of children rather than remain textbook-centric,
- make examinations more flexible and integrated into classroom life, and
- nurture an over-riding identity informed by caring concerns within the democratic polity of the country' (NCF 2005, p. 5) .

Even after so many years of enactment of the National Curriculum Framework, 2005, wide gaps exist between what is prescribed in the curriculum for general school education and how it has been enacted in schools. The vision of NCF 2005 to reorient the perception towards 'learners and learning' and to follow a holistic approach towards their development seems to have been realised only partially. The curriculum also talked about experiential learning in which a teacher would only facilitate students' learning by actively engaging them in the process of knowledge construction and encourage their creativity. However, still in most of the schools, teachers play the conventional role of communicating textbook information to the students and students are expected to simply memorize it and reproduce it in their exams. Many other aims such as

reformation of assessment system, emphasis towards development of 21st century skills and competencies among students, effective use of ICT and other learning resources, etc., have also been accomplished only to some extent.

Thus, the vision of the framework is yet to be achieved to its fullest form because the focus of education in schools is still more on rote memorization than knowledge construction.

Searching the Missing Link for Assuring the Quality of Enacted School Curriculum

An ever-changing society has led to transformations in the kind of skills and efficacies required by today's workforce. This has posed a massive demand on schools to transform students into a group of skilled individuals who are efficient to perform diverse tasks. Schools need to prepare students not merely to acquire readymade tidbits of knowledge, but to become analysers, synthesizers, and appliers of that knowledge in real-life situations so that they become capable and confident to face the challenges and generate novel ideas and solutions to deal with them effectively.

For the production of an efficient manpower, schools need to rethink the curricular and pedagogic strategies and techniques to emphasise upon the inculcation of skill-based competencies. In this respect, the stakeholders of education around the globe are striving towards renovating education at the curricular and assessment level to gear up students to become critical reflectors of knowledge rather than rote learners. Schools are now focusing on providing diverse learning experiences to students. These experiences are more engaging, more problem- and discovery-based, more interdisciplinary, and more productive to develop skills, attributes, a critical and reflective mindset, a strong character and value system among students so that they can achieve success in every sphere of life and become life-long learners.

Although schools and stake-holders of education are investing a great deal of time, effort, and resources to assure the quality of education, they are still in search of that 'missing link'. Their major concern is 'what more could be done to assure the quality of enacted school curriculum?' The present paper proposes that the quality of enacted school curriculum could be assured by making the students' learning engagement an integral component of the learning process.

Students' Learning Engagement

Engagement in learning pertains to the ways in which students associate with the academic and social dimensions of learning. Engagement in learning has been denoted by a wide range of terms such as ' "*student engagement*", "*school engagement*", "*academic*

engagement", "*educational engagement*", "*engaged time*", "*student learning engagement*", "*student engaged learning*", "*academic responding*", "*engagement in class*", "*engagement in school work*"', etc. (Fredricks et al. 2011). Cooper and Jacobs (2011) state that a positive educational engagement encompasses the complete range of social, emotional, and behavioural operations pertaining to learning and development. This involves creating a school and classroom environment that facilitates the state of emotional well-being, nurturing cognitive skills for efficient organisation and interpretation of information, cultivating favourable social relationships and inculcating positive self respect.

The Glossary of Education Reform (2014) defines student engagement as 'students' attentiveness, inquisitiveness, and curiosity'. Wellborn (1991) defines engagement as 'the extent of a student's lively participation in a learning activity'. The term 'learning activity' may denote engagement in a short-term task or a long-term event, as the learning activity may occur for a short span of time (such as classroom activities) or over some months or years (such as a specific course). Reschly and Christenson (2012) refer to engagement as the 'energized, directed, and sustained action, or the observable qualities of students' actual interactions with academic tasks'. Thus, students' learning engagement is the active involvement and participation of students in learning activities.

Students' learning engagement supports students' voluntary and active involvement in curricular and co-curricular learning by providing them conducive learning environment and appropriate presentation of the contents. This is done so that they develop positive relationships with teachers and peers and learn to work together respecting and representing each other's thoughts, which in the broadest sense may improve the quality systems of the institution and quality of education at large (Dunne and Owen 2013).

Dimensions of Students' Learning Engagement

Fredricks et al. (2004) and Reschly & Christenson (2006) consider engagement as a 'multidimensional construct' which is highly influenced by the interventions of contexts such as teachers, families, peers, etc. They recognise students' learning engagement as a pathway to desired learning outcomes across the cognitive and co-cognitive domains. They characterise engagement into three types as listed below.

Behavioural Engagement

It denotes student's participation in academic and social activities of the institution. It is an important factor to achieve desirable academic outcomes and prevents dropout.

Emotional Engagement

It relates to student's behaviour towards teachers, peers, and the institution, and denotes a sense of belonging towards the institution and willingness to fulfill its requirements for better performance.

Cognitive Engagement

It points towards student's personal investment in learning, incorporating thoughtfulness, self-regulation strategies, competence, and willingness to master advance learning skills and comprehend complex ideas.

Skinner et al. (2008) have found that the behavioural, emotional, and cognitive aspects of students' learning engagement significantly affect each other and magnify themselves over time. Also the multidimensionality of 'students' learning engagement' lies in the fact that students' behaviour, emotions, or cognition are not water-tight compartments and are insufficient indicators of student's learning engagement in themselves. Li & Lerner (2013) justify the interrelationship between the three dimensions of students' learning engagement by giving examples that a student may show active participation in learning in terms of regular attendance, spending adequate time on learning tasks, and putting rigorous efforts to accomplish the academic goals, all of which indicate student's behavioural engagement. However, they do not represent the extent of student's personal investment and commitment to learning (cognitive engagement) and their emotions and feelings attached to various contexts of learning as well as willingness to learn (emotional engagement). Also, a student who likes and enjoys coming to school and behaves amicably with teachers and peers may be regarded as an 'emotionally engaged' student, but nothing could be said about their level of concentration and meaningful effort invested in learning (cognitive engagement) as well as the determination to achieve desirable learning outcomes (behavioural engagement). Mere participation in learning activities of the school cannot alone be taken to describe all the three dimensions of students' learning engagement. Thus, it could be inferred that a student can only be said to be deeply engaged in learning when the behavioural, emotional, and cognitive components of engagement come into play simultaneously.

Several studies have also found significant relationships between the behavioural, emotional, and cognitive dimensions of students' learning engagement. Emotional engagement has been found to significantly contribute to the behavioural aspect of students' learning engagement (Skinner et al. 2008, Li et al. 2010). Students who show positive emotions and liking towards school tend to exhibit appropriate behaviour while participating in the learning activities of the school. Li & Lerner

(2013) also report from various authors that significant relationships exist between students' positive emotions (emotional engagement) and their increased well-being, effective coping, creative thinking and enhanced thought process, all of which are indicators of cognitive engagement. Studies also suggest that the emotional engagement may be considered as the initiating point which in its utmost capacity facilitates students' behaviours and actions (behavioural engagement) and their meaningful efforts and deeper commitment to learning (cognitive engagement). In their study, Li & Lerner (2013) have found that early emotional engagement significantly predicted behavioural and cognitive engagement, and behavioural engagement was a significant predictor of later emotional and cognitive engagement. They have further reported that bi-directional relationships exist between behavioural and emotional engagement and between emotional and cognitive engagement.

Students' Learning Engagement: A Missing Link for Assuring the Quality of Enacted School Curriculum

'Students' learning engagement is an appropriate predictor of students' behaviour in the teaching-learning process' and is an essential requirement for assuring the quality of education and achieving the desired learning outcomes (Sumaiya & Masih 2016). It constitutes psychological events which may be observable (for example, active presence in class) and unobservable (for example, commitment to learning) and it links the student with the school, home, parents, and peers (Reschly & Christenson 2012) .

In the past few years, the goal of education has shifted from the prevention of dropout to high school completion, and the aim of successful school completion has broadened to meet the cognitive, affective, and behavioural standards of schooling so that success in school paves way for accessibility to post secondary enrolment options (Reschly & Christenson 2012). Students' institutional success could be ensured only when students are actively engaged in learning—such an engagement could be observed when they participate in learning activities with keen interest, put rigorous efforts towards task accomplishment, and maintain sound interpersonal relationships at school.

Students' learning engagement is a crucial academic construct which has great potentiality to assure the quality of enacted school curriculum and to deeply engage students in the cognitive and co-cognitive activities of the school. However, the potentiality of this construct is often overlooked during the curricular transactions in the classroom. Students' learning engagement needs to be made an integral component of the enacted

school curriculum. More emphasis needs to be laid upon providing engaging activities and meaningful interactions to students that promote their active engagement in both cognitive and co-cognitive activities of the enacted curriculum. Engagement activities include, but are not limited to academic effort, higher-order thinking skills, academic integration, diversity-related experiences and practical experiences such as academic challenge, learning through collaboration, student-teacher interaction, and student effort (Kearsley and Shneiderman 1998)

In the light of the aforementioned concerns, the present paper proposes a theoretical model for assuring the quality of enacted school curriculum by making students' learning engagement an integral component of the learning process (Figure 1). In this model, 'students' learning engagement' is conceived as students' active participation and involvement in learning, and is constituted by three essential components viz., the learner, the school, and the teacher. In facilitating learning engagement in teaching-learning process—

- the role of a learner is to actively participate in teaching-learning activities by collaborating with co-learners (peers and teachers); coordinating with them to co-create a common meaning out of individualised meanings; demonstrating leadership skills while working in groups; and maintaining sound interpersonal relationships with peers and staffs.
- the role of a teacher is to design a suitable plan to transmit the curricular contents in a way that benefits every learner; use innovative pedagogical practices and strategies to make learning a joyful experience for the students; adopt appropriate assessment and evaluation techniques that rightly measure students' learning rather than their memorization; and provide motivating feedback to them so that they learn from their mistakes and grow as better learners.
- the role of a school is to formulate plans, programmes, strategies, and interventions which best cater to students' individualized needs; implement them in day-to-day teaching-learning situations, orient teachers and students to benefit most out of them, make frequent transitions across various plans and strategies to sustain better teaching-learning, and judiciously invest in student learning in terms of human and material resources. All these efforts should be directed towards achieving the goals of student retention, their persistence in teaching-learning process, and achievement of desired learning outcomes.

The learners are the central entity in the domain of education around whom all the efforts of the teachers and the schools are directed. It is for

their benefit that schools are investing so much in terms of physical and human resources. Teachers and other stakeholders of education are striving hard to create a conducive learning environment where the students can learn efficiently and achieve desirable learning outcomes which eventually would lead to enhanced quality of education. Hence, in the model (Figure 1), the role of the learner is placed at the centre and the roles of the teacher and school are placed on either sides suggesting that their roles and responsibilities are directed towards enhanced learning and well-being of the learners.

The model proposes that the quality of enacted school curriculum could be assured by renovating certain aspects of students' learning in relation to the three dimensions of students' learning engagement.

Behavioural Engagement

The behavioural aspect of students' learning engagement could be improved by providing a physically and psychologically conducive learning environment to the students. This would include proper infrastructural facilities and sufficient learning resources, creating engaging learning activities to provide hands-on experience of the theoretical contents, regularly monitoring students' learning through appropriate assessment, and motivating them to achieve the desired learning goals.

Emotional Engagement

The emotional aspect of students' learning engagement could be improved by providing learning experiences to the students which have more scope for active participation and interaction; developing a sense of belonging in students so that they feel an important part of the school community and share cordial relationships with its members; and engaging them in learning activities with a positive outlook towards goal completion.

Cognitive Engagement

The cognitive aspect of students' learning engagement could be improved by efficiently linking students' previous knowledge and experiences to new curricular content for better acquisition of new knowledge. This could also be done by creating activities which facilitate activity-based learning among students to effectively relate theory to practice, acknowledging students' constructive skills and encouraging them to engage in individualised meaning-making process by giving autonomy for knowledge construction, and teaching through interdisciplinary approach to help students transfer learning from one discipline to another and to develop advanced learning skills like critical thinking and problem solving.

Since all the three dimensions of students' learning engagement are related to each other, simultaneous efforts must be made to improve all

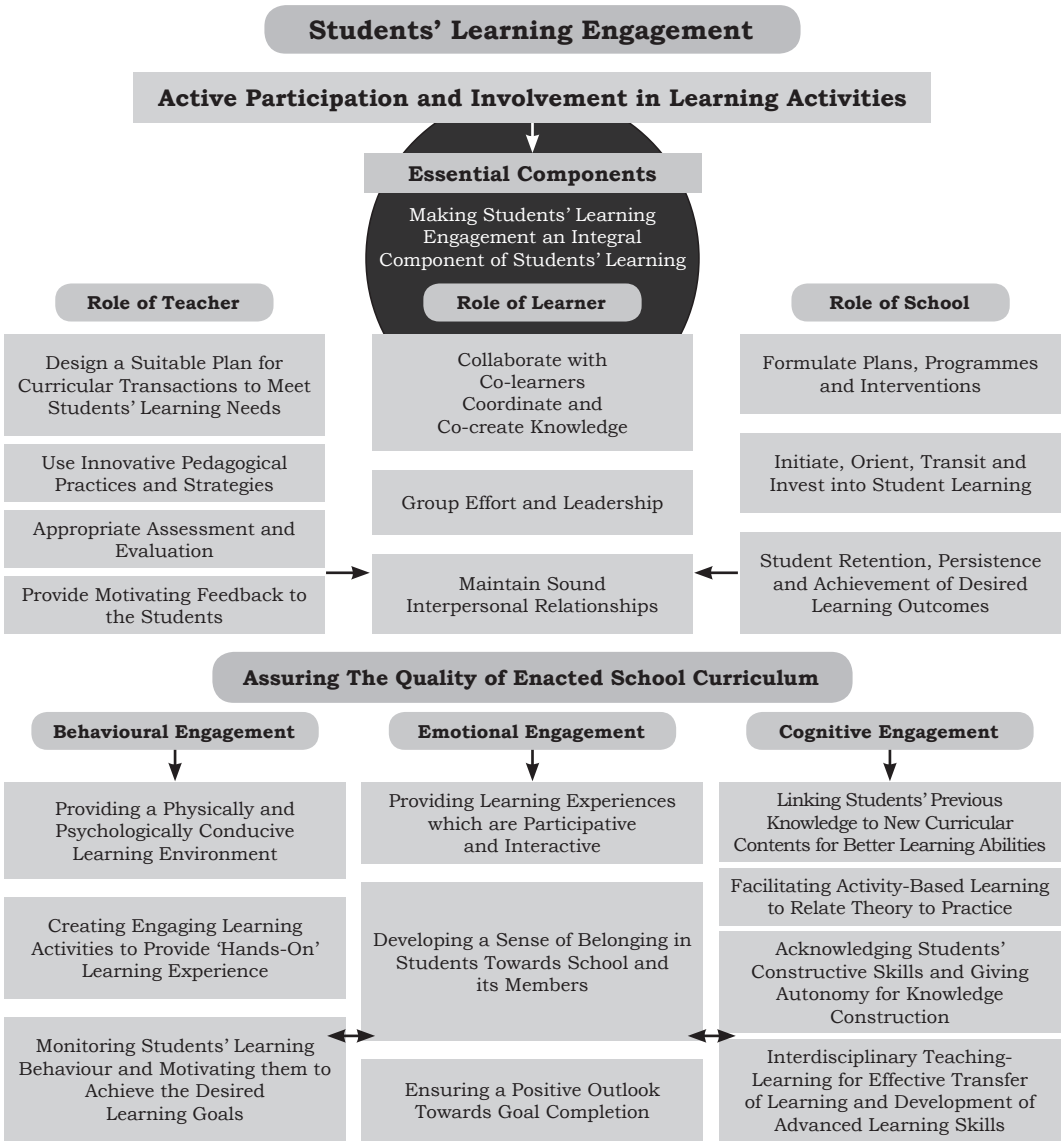

Figure 1. Assuring the Quality of Enacted School Curriculum through Students' Learning Engagement—A Theoretical Model

the three dimensions to facilitate students' efficient learning which would ultimately assure the quality of enacted school curriculum.

The proposed theoretical model holds value to academicians, educational policymakers, and educational administrators to reform curricular and pedagogical strategies for assuring the quality of enacted school curriculum.

Conclusion

Today's learners need to be thoroughly engaged in learning. Institutions that strive to provide quality education facilitate student learning by designing and supporting meaningful activities that cause deep engagement frequently. By means of quality education, the need is to instill such skills and competencies in students that are coherent with the demands of the dynamically progressive society. The emphasis of education needs to be on transforming the learners from 'passive absorbers of information' to 'active constructors of meaning' (Janosz 2012) . The need is to acknowledge students' learning engagement as a potential academic construct which can facilitate quality learning. Lastly, for enhancing the quality of enacted school curriculum, the mundane classroom teaching-learning process needs to be alchemised into a meaning-making process that would actively engage learners in the ongoing learning tasks, direct them to utilise their on-task experiences to transform a piece of information into individualised meanings, facilitate them to merge 'hands-on' with 'minds-on' experiences to develop their own knowledge, and give them opportunities to explore the functionality of that knowledge.

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The Science behind Self-regulatory Behaviours of Student Teachers

A Neurocognitive Outlook

A. Ananda Kumar* and K.Chellamani**

Abstract

Teachers play a pivotal role in teaching-learning, societal and nation building. In this perspective, the teacher quality determines students' learning, societal and national development. The preparation of quality teachers is possible through self-regulation practices in the Teacher Education programme. Self-regulated teachers understand their accountability and the importance of their role. They perform well in preparing lesson plans, curricular designs, teaching aids, word choice, group building and in giving individual attention in teaching and learning. It also facilitates the teachers to sense their students' mood, body language and classroom environment in their teaching. Neurocognitive concepts explain how the self-regulation process occurs in one's brain in a scientific way. It also explains how the quality behaviours will emerge. The integration of neurocognitive ideas in the field of education promotes effective performance of teachers as well as the learners. This paper delineates the scientific factors involved in the construction of self-regulated behaviour of student teachers.

Introduction

The growth and development of a country is measured by its economic status. This economic status is achieved through quality of education; it depends upon the quality enhancement in the Teacher Education programme. The concept of quality in education has gained attention among policymakers,

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Teacher Educators, teachers, parents and students. A teacher is the most important catalytic agent of the society who influences the quality of education. Quality enhancement in Teacher Education improves the quality of education. The quality of teachers also directly influences the self-regulation process in a behavioural perspective.

Neuroscience is the scientific study dealing with the structure and function of the nervous system. The neuroscientific concepts explain how the process of self-regulation occurs in our brain. Proper application of neurocognitive concepts in the Teacher Education programme influences self-regulation among the student teachers. It helps develop the attitude, knowledge, skill and professional competencies of a teacher among the student teachers.

Self-regulation

Self-regulation refers to self-generated thoughts, the control of one's emotions that channelise the behaviour towards the attainment of personal goals. Self-regulated students consciously think and sensitise the internal and external circumstances and perform in a meaningful way. It enhances problem solving behaviour, motivation and decision making as well as the intention of systemic mindfulness of the students. The components of self-regulation include personal, behavioural and environmental factors. The behavioural self-regulation involves self-observing and strategically adjusting performance processes, such as one's method of learning. Environmental self-regulation involves observing and adjusting the environmental conditions or outcomes, and the covert or personal self-regulation involves monitoring and adjusting cognitive and affective states, such as imagery for remembering or relaxing. These three components interact and interlink with each other, whenever and wherever better adjustment and performance are required. Thus, self-regulation involves triadic processes that are proactively as well as reactively adapted for the attainment of personal goals.

Self-regulation allows people to make plans, choose from alternatives, control impulses, inhibit unwanted thoughts, and regulate appetitive behaviour (Heatherton 2011). Whereas poor self-control puts people at risk of various health and interpersonal problems, those who are best able to self-regulate their behaviours demonstrate better mental health (Duckworth & Seligman 2005, Tangney et al. 2004). Self-regulation proposes that a critical balance exists between the strength of an impulse and an individual's ability to inhibit either the desire itself or performance upon the desire.

Self-regulation and Self-regulatory Strength

Self-control or self-regulation is defined as the capacity to override natural and automatic tendencies, desires, or behaviours; to pursue

long-term goals, even at the expense of short-term attractions; and to follow socially prescribed norms and rules. In other words, self-regulation is the capacity to alter the self's responses, to achieve a desired state or outcome that would otherwise not arise naturally. Thus, the goal of self-control is to interrupt the self's tendency to operate on automatic pilot and to steer the behaviour consciously in a desired direction.

The construct of self-regulatory strength is relevant at the stage when a person has detected a discrepancy and is ready to initiate actions to reduce it. At this point, the person must have the inner psychological resources (that is, self-regulatory strength) necessary to alter behaviour in a way that will bring oneself closer to the internal standards or goals. This form of self-regulation is one important function of the executive system, which also subsumes other forms of volitional and active capabilities of the self, including planning and problem solving, goal-directed behaviour, decision making, as well as logical and intelligent thought.

Cognition in Self-regulation Formation

The four general phases of cognition involved in self-regulation are helpful in the formation of the individual. The first phase of forethought, planning and activation, stimulates the planning and goal setting as well as activation of perceptions and knowledge of the task and circumstance. It also enhances the self in relation to the task. The second phase is monitoring, which concerns various processes that represent the metacognitive awareness on different features of the self or the task and context. The third phase is the control which involves efforts to control and regulate different aspects of the self or the task and context. Finally, the fourth phase represents various kind of reactions and reflections on the self or the task and context.

The process of developing self-regulation engages different cognitive strategies. The cognitive strategy of cognitive planning and activation contains three general types of planning or activation: (i) target goal setting, (ii) activation of relevant prior content knowledge and (iii) activation of metacognitive knowledge. Target goal setting involves the setting of task-specific goals. Forethought and planning involves the activation of relevant prior knowledge. Activation of prior knowledge can and does happen automatically and without conscious thought. Students, who are self-regulating themselves more, can actively search their memory for relevant prior knowledge before they actually begin performing the task.

Cognitive control and regulation includes the cognitive and metacognitive activities of the students who engage in activities to adapt and change their cognition. The students attempt to control, regulate and change their cognition

according to the achievement of the goal and current progress towards the goal. One of the central aspects of the control and regulation of cognition is the actual selection and use of various cognitive strategies for memory, learning, reasoning, problem solving and thinking. The selection of appropriate cognitive strategies enables the students to have a positive influence on learning and performance.

The cognitive processes of reaction and reflection involve students' judgements and evaluations of their performance on the task as well as their aspirations for performance. The good self-regulated students do evaluate their performance; at the same occasion, students who avoid self-evaluation are not aware of the importance of self-evaluation in terms of the goals set for the task. Good self-regulators evaluate each and every action of theirs for better performance.

Self-regulation in the Brain

An understanding of the brain mechanisms underlying self-regulation can provide valuable insights into how students are able to regulate and control their thoughts, behaviours, and emotional states, and what happens on those occasions when they fail to do so. Though neuroscience has formed a relatively clear picture of the brain systems that give rise to reward motivation, the field has struggled to coalesce around a unified view of the control mechanisms that support self-regulation.

One commonly held view of self-regulation is that humans have evolved specific control systems, particularly within the prefrontal cortex (PFC), that permit superior planning and behavioural flexibility, perhaps owing to the disproportionate amount of cortical expansion in the human PFC (Rilling 2006). The PFC supports high-level cognitive abilities necessary for self-regulation, such as working memory, response inhibition, attentional filtering, decision making, and planning (Miller & Cohen 2001, Tranel et al. 1994). Anatomically, the PFC is the portion of the frontal lobe that lies anterior to the primary and secondary motor cortices. Researchers generally agree that the PFC can be divided into several distinct areas, although the precise anatomical boundaries separating sub-regions of the PFC are debatable. Three PFC sub-regions have been identified as important for self-regulation: the ventromedial PFC (vmPFC), the lateral PFC (including the dorsal and ventral convexities), and the anterior cingulate cortex (ACC).

Ventromedial Prefrontal Cortex

The exact anatomical boundaries between the vmPFC and OFC (Orbito Frontal Cortex) are coarsely defined, perhaps owing to the fact that the orbital PFC and vmPFC are cytoarchitectonically similar (Ongur & Price 2000). As a result, these terms are often used interchangeably when

referring to regions along the ventral medial wall of the PFC. The superior border of the vmPFC is considered to originate around the genu of the corpus callosum [including the medial aspect of Brodmann Areas (BAs) 11, 12, and 25 and the ventral portions of BAs 10 and 32], and the inferior border often overlaps the gyrus rectus and the middle orbital gryus. The vmPFC shares reciprocal connections with subcortical limbic structures such as the amygdala (Amaral & Price 1984) as well as regions typically associated with reward processing, such as the ventral striatum (Haber et al. 1995). Because of its interconnectedness with both the amygdala and ventral striatum, the vmPFC has been implicated in both emotion regulation (Quirk & Beer 2006) and self-regulation of social and appetitive behavior (Fehr & Camerer 2007, Hare et al. 2009, Lin et al. 2012).

Lateral Prefrontal Cortex

The lateral PFC is composed of both the dorsal and ventral convexities—specifically, BAs (Brodmann Areas) 8, 9, and 46 and 44, 45, and 47—and it receives highly processed sensory input from the dorsal and ventral visual streams (that is, the so-called what and where pathways) (Barbas 1988). It projects to secondary motor regions (Petrides & Pandya 1999), the basal ganglia (Nambu 2008), and the ACC and vmPFC (McDonald et al. 1996). The lateral PFC has been traditionally associated with language functions in the left hemisphere (BAs 44, 45, and 47) and more generally, with core executive processes such as working memory (Curtis & D'Esposito 2003, Smith & Jonides 1999), response selection (Thompson-Schill et al. 2005), and response inhibition (Garavan et al. 1999). As such, the lateral PFC may play a crucial role in supporting many of the complex cognitive operations needed for successful self-regulation (Cohen & Lieberman 2010).

Anterior Cingulate Cortex

The anterior cingulate is the agranular portion of the cingulate, incorporating both the mid cingulate and the anterior perigenual cingulate (BAs 24, 25, and 32). Although not strictly a part of the PFC, the anterior cingulate cortex (ACC) is widely associated with cognitive control and conflict monitoring. A functional dissociation along the dorsal and ventral aspects of the ACC has emerged from meta-analyses of neuroimaging studies reporting ACC activity (Bush et al. 2000). Specifically, activity in the dorsal ACC (dACC) often signals the occurrence of cognitive conflicts during a variety of tasks that encourage response competition (for example, the Stroop task), including those that involve the commission of errors (Botvinick et al. 2004, Carter et al. 1998, Kerns et al. 2004). By contrast, activity in the ventral ACC is more typically associated with social and emotional

processes (for example, Somerville et al. 2006, Whalen et al. 1998).

Successful self-regulation involves many executive functions, each of which may have a neural signature that differs, depending on specific task demands, (for example, controlling thoughts, reappraising emotion, or inhibiting prepotent responses during a Stroop task), and any one test of executive function may tap only one piece of a larger control system. Thus, a network-level approach may help delineate which systems are important for successful self-regulation.

Features of Self-regulation System

- Self-regulation system must be conscious, unlike automatic and implicit influences of sub cortical reward activity; effective self-regulation relies on conscious, ongoing attempts to regulate behavior (Baumeister & Masicampo 2010, Hofmann et al. 2009, Posner & Rothbart 1998). As a consequence, self-regulation is effortful and slow by comparison. Event-related neuroimaging studies hoping to glimpse momentary instances of self-regulation may fail to do so because a self-regulation system designed in this way would perpetually lose to the faster, automatic sub cortical systems. To compensate, a conscious, effortful self-regulation system must be tonically engaged to be ready in advance for incoming reward cues.
- Self-regulation system must understand time. An effective self-regulation system must be capable of understanding what the ventral striatum cannot—that short-term, immediate rewards can have negative long-term consequences. As such, a self-regulation system must be capable of long-term goal planning and goal maintenance to effectively regulate against impulses with long-term negative consequences and to promote behaviours with no short-term immediate reward (for example, exercising) that are intended to improve long-term well-being (Baumeister & Heatherton 1996).
- Self-regulation system must be configurable. Long-term goals change, and different situations necessitate regulation of different impulses. As cortical real estate is limited, the individuals are not likely to have an independent self-regulation system for each of their vices. An effective self-regulation system must therefore be domain general and capable of swapping and updating goal parameters as situations dictate.
- Self-regulation system must be anatomically positioned to interact with both processing and output systems. If self-regulation systems are domain general and configurable, then they must be interconnected with multiple

processing systems to exert control over impulses or motor plans that conflict with long-term goals.

Six Main Domains of Self-regulation Formation

Self-regulation of an individual involves developing one's own interpersonal and intrapersonal self-regulation, within one's conscious mind. The development of interpersonal and intrapersonal self-regulation processes takes place in six main domains: (i) self-awareness, (ii) managing one's own emotions, (iii) motivating oneself, (iv) recognising emotions in others, (v) handling relationships, and (vi) self-evaluation. While intrapersonal self-regulation includes self-awareness, managing one's own emotions and self-evaluation, the interpersonal self-regulation includes recogniing emotions in others and handling relationships. These six self-regulatory domains function in a meticulous way to interact with each other for the development and conscious maintenance of self-regulation.

1. *Self-awareness* is an 'awareness of both our mood and our thoughts about that mood', in the words of John Mayer (1993). It creates awareness of one's moods as one experiences them. When one gets into a bad mood, one does not ponder and obsess about it, and is able to get out of it sooner. In short, one's mindfulness helps manage one's emotions. Self-awareness represents an essential focus, one that attunes us to the subtle murmurs within, that can help guide our way through life. This inner radar holds the key to managing what we do, and just as important, what we do not do. This internal control mechanism makes quality teachers.

   There are two major streams of self-awareness — 'me', which builds the narrative about our past and future; and 'I', which brings us into the immediate present. The 'me', as we have seen, links together what we experience across time. The 'I', in stark contrast, exists only in the raw experience of our immediate moment (Daniel Goleman 2013).

   The mind deploys self-awareness to keep everything to do on track. Meta-cognition — thinking about thinking — lets us know how our mental operations are going, and adjust them as needed; meta-emotion does the same with regulating the flow of feeling and impulse. In the mind's design, self-awareness is built to regulate our own emotions, as well as sensing what others feel.
2. *Managing one's own emotions* is a sense of self-mastery to know their own emotions and control them in a manner to be able to express it in a meaningful way. The positive and negative emotions determine the sense of well-being. Positive emotions enhance good, self-

regulatory mechanism among the students. Managing one's own emotions reduces the emotional instability and activates the conscious act of thinking.

The process of self-regulation is closely connected with process of emotional regulation. Students apply different strategies in managing their emotions. The Process Model of Emotion Regulation (Gross and Thompson 2007) explains the five families of emotion regulation strategies. The first family is that of situation selection, where a person can control the appraisal process before it even begins by actively choosing to place oneself in particular contexts and not others. The second family of emotion regulation strategy—situation modification involves direct efforts to change the situation to modify its emotional impact. Once the particular context has been set, a third strategy may direct attention to the environmental cues that promote desired emotions, while ignoring cues that promote undesired emotions. Attentional deployment gates particular cues into the appraisal process, allowing some aspects of the situation to become the focus of attention, while excluding others from it. A fourth family of strategies, referred to as cognitive change, allows a person to modify the meaning of particular cues, once those cues have gained access to the appraisal process. The fifth family of emotion regulation strategy, response modulation, affects only the outputs of reappraisal process. Using this strategy, control processes can suppress or augment behavioural manifestations of one's emotional state, such as smiles, frowns, or tendencies to approach or withdraw.

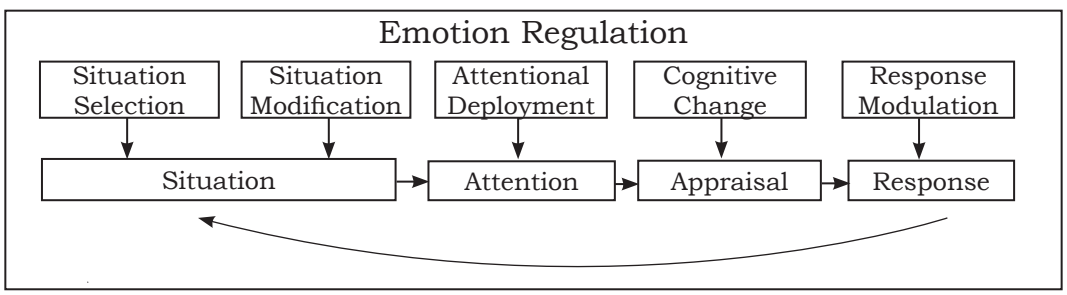

Figure 1. A process model of emotion regulation that highlights five families of emotion regulation strategies
Source: Gross and Thompson (2007). Copyright 2007 by The Guilford Press

Managing one's own emotions helps to regulate the self-management behaviour. Activating the well-balanced thinking and emotions of the individual

regulates ones self-management. Its function is to initiate plans and actions to achieve the desired goals. Self-management consists of the ability to effectively integrate the three components of self-regulation.

- Appropriately identify the problem, formulate an accurate mental representation of the event, and plan behaviour according to relevant information;
- Implement cognitive activity in a manner that will promote personal success and satisfaction; and
- Monitor and evaluate internal and external feedback to execute behaviour to meet obligations and duties (Sternberg 1988).

Self-management of the teacher enhances the desirable goal and controls the undesirable behaviour. Managing one's emotions facilitate the management of their own moods and develop self-management behaviour among teachers.

3. *Motivating oneself is* the marshalling of feelings of enthusiasm, zeal and confidence in achievement of the goal. It is one of the domains in the process of self-regulation. It energises the mind and body towards achieving a goal. Emotion and motivation are closely intertwined; emotions are often evoked when motives are achieved or thwarted, and thus, they can be indicators of an underlying motivational state. Conversely, emotions influence motives by activating approach or withdraw behaviours. For instance, a student who wants to graduate with high honors is highly motivated to study. After receiving a bad grade, however, the student's emotional response may lead to a behaviour that reduces the likelihood of attaining the goal (Dale Purves et al. 2008).

Students who are motivating oneself direct their behaviour towards the task, have judgements of competence to perform a task, task value beliefs and personal interest in the task. It enhances the effort, persistence, involvement, performance and learning aptitude among the students. Motivating oneself increases the self-regulation of personal interest to the attainment of the task. It also varies according to the situation and contextual features of the student. The students can control and regulate their own motivation according to their interest, need and satisfaction in job performance.

There are many different strategies that students apply to motivate themselves. They control their negative emotions and increase their positive emotions to the task. The strategies of self-efficacy, self-affirmation and self-worth and positive self-talk regulate the motivation to oneself. Intrinsic positive emotions of joy, interest, happiness and enthusiasm

regulate the motivation among the students.

Motivating oneself speaks to the more general sense, in which channelling emotions towards a productive end is a master aptitude. Whether it be in controlling impulse and putting off gratification, regulating our moods so they facilitate rather than impede thinking, motivating ourselves to persist and try, try again in the face of setbacks, or finding ways to enter flow and so, perform more effectively (Daniel Goleman 1996).

4. *Recognising emotions in others* is the ability of understanding others emotions through facial reading, tone of voice and the behavioural actions. It creates emotional self-awareness in the students to understand others feelings to maintain a good relationship with them. This makes them better at callings such as the caring professions, teaching and management. Recognizing emotions in others generates empathy towards them. It is a kind of self-regulation process to realise and recognise others feelings and moods. This understanding helps form strong interpersonal relationships with others. 'You need to understand your own feelings to understand the feelings of others' (Tania Singer 2010).

Supersensitive reading of emotional signals represents a zenith of cognitive empathy, one of the three main varieties of the ability to focus on what other people experience. This variety of empathy lets us take other people's perspective, comprehend their mental state, and at the same time, mange our own emotions while we take stock of others. This is a top-down mental operation to regulate our self-regulation to understand others.

In contrast, with emotional empathy we join the other person in their feelings along with them; our bodies resonate in whatever key of joy or sorrow that person may be going through. Such attunement tends to occur through automatic, spontaneous and bottom-up brain circuits. Emotional empathy recognises what another person thinks and resonates with their feelings.

It does not necessarily lead to sympathy, concern goes further—leading us to care about them, mobilising us to help, if need be. This compassionate attitude builds on bottom-up primal systems for caring and attachment deep down in the brain, through this mix with more reflective, top-down circuits that evaluate how much we value their well-being. Cognitive empathy gives the ability to understand another person's ways of seeing and thinking (Daniel Goleman 2013). The self-regulatory process of recognising emotions of others allows us to think about our own

thoughts and feelings. We need to apply the same reasoning to other people's mind. It enhances in reading a person's feelings, gets stronger and thus, paves the way for smoother social interactions.

5. *Handling relationships* is the skill of managing one's own emotions, and understanding others emotions. This type of self-regulation creates awareness about others feelings and thinking. It facilitates the individuals to understand their own behaviour and others behaviour for managing relationships better. Handling relationships triggers one's social sensitivity and social skill for better adjustment in the society.

To manifest such interpersonal power, students must first reach a benchmark of self-control, the beginnings of the capacity to damp down their own anger and distress, their impulses and excitement, even if that ability usually falters. Attunement to others demands a modicum of calm in oneself. Tentative signs of this ability to manage their own emotions emerge, when students control and regulate their cognition and emotions. Thus, handling emotions in someone else—the fine art of relationships requires the ripeness of two other emotional skills, self-management and empathy.

With this base, the 'students' skills' are to be developed. These are the social competencies that make for effectiveness in dealing with others; deficits here lead to ineptness in the social world or repeated interpersonal disasters. Indeed, it is precisely the lack of these skills that can cause even the intellectually brightest to be found in their relationships, coming off as arrogant, obnoxious or insensitive. These social abilities allow one to shape an encounter, to mobilize and inspire others, to thrive in intimate relationships, to persuade and influence, to put others at ease (Daniel Goleman 1996). Students who have this type of social competence perform well in classroom management as well as in institutional management.

6. *Self-evaluation* refers to comparing self-monitored information with a standard or goal, such as a sprinter judging the practice runs according to his or her best previous effort. There are four distinctive types of criteria that students use to evaluate themselves: mastery, previous performance, emotional adjustment and social sensitivity. Mastery level self-evaluation triggers the self-analysis of their mastery in subject as well as further improvement of the subject. Self-analysis of previous performance facilitates the students to know their own strength and weakness in each and every action. It also enhances the better adjustment and attitude of the students. Self-evaluation of emotional adjustment generates good management skill in managing and expressing

emotions. Social sensitivity stimulates the understanding and recognising ability of the need of others, need of the society and better social adjustment. This evaluation enhances the personal improvement on social consciousness. Self-evaluation makes the students indulge in a self-reflective practice. It allows the student teacher to evaluate their progress towards learning goals.

Activation of past memories of the individual regulates one's own self-evaluation. During this process, the individual controls his emotions and triggers his reflective memories. It refers to comparing self-monitored information with a standard or goal, such as a sprinter judging practice runs according to his or her best previous effort. There are four distinctive types of criteria the teacher needs to evaluate themselves: mastery, previous performance, social sensitivity, thoughts and actions.

1. The student teacher has to evaluate one's own mastery level of the present curriculum. One should know one's strength and weakness in mastery level. This self-evaluation enriches the content knowledge in the teacher trainee.
2. The student teacher has to evaluate one's own previous performance as well as the student performance based on the transactional competencies. It involves comparisons of current performance with earlier levels of one's behaviour, such as baseline or the previous performance.
3. The student teacher has to evaluate one's own social sensitivity to develop societal skills. One should analyse the existing social needs in the globalised world. Accordingly, the curriculum, method of teaching and method of learning gets changed. This social sensitivity triggers transactional competencies among teacher trainees.
4. The student teacher has to evaluate one's own thoughts and actions in classroom teaching and learning. They should evaluate where, when and how the thoughts and actions are used during the subject content transaction.

A self-regulated student teacher evaluates instructional effectiveness based on comparison with his previous performance. As a result of this evaluation process, one develops their behavioural, cognitive and affective responses.

Conclusion

Self-regulation is a process controlling one's own thoughts and feelings to achieve long-term goals. The self-regulated teachers improve their competencies through their thoughts and self-evaluation. This process meaningfully integrates the cognition and emotion of the trainees to think consciously and to take action in achieving their goals. Neurocognitive perception explains how neural

networks of the brain function during the self-regulation. It also creates awareness about the brain areas involved in the self-regulation process. The proper understanding of neurocognitive concepts in self-regulation formation among Teacher Educators enhances their awareness about neurocognition. It helps the Teacher Educator and teacher education programme to prepare quality teachers.

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Journey from Teaching to Learning through Professional Learning Communities

Role of School Leadership

Kashyapi Awasthi*

Abstract

Teacher Education in the country calls for revolutionary changes. The centrality of teacher and the need for Continuous Professional Development (CPD) has been the focus in many policy documents. However, the cry for quality teachers continues. Developing teacher capacity is critical; it requires a fine blend of pedagogical skills and competencies, knowledge, attitude, positive learning, organisational conditions and culture, and above all, a reflective dialogue leading to lifelong learning and passionate rendering. The author in this paper deliberates on the idea of Continuous Professional Development (CPD), making teachers responsible and aware about their own professional development and developing teachers as reflective practitioners through the formation of Professional Learning Communities (PLC). The paper also shares the role of heads of schools in initiating PLC in school, and amongst schools at the cluster level, thus empowering teachers through academic leadership, gradually moving towards whole school improvement.

Introduction

'If a doctor, lawyer, or dentist had 40 people in his office at one time, all of whom had different needs, and some of whom did not want to be there and were causing trouble, and the doctor, lawyer, or dentist, without assistance, had to treat them all with professional excellence for nine months, then they might have some

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conception of the classroom teacher's job' (Donald D. Quinn). Teaching is one of the most demanding vocations in the world. Excellence in schools depends upon its teachers (Education for National Development, Indian Education Commission 1964–66) and their individual and collective capacity, and its link with school-wide capacity for promoting pupils' learning. Educational systems the world over recognise the importance of teacher and teacher development. Capacity building in particular has been promoted in national flagship programmes like *Sarva Shiksha Abhiyan (SSA)* and *Rashtriya Madhyamik Shiksha Abhiyan (RMSA)*. The Rights of Children to Free and Compulsory Education Act, 2009 (RTE) has also emphasised the centrality of teachers and teacher development. Huge amounts of centralised funds to the tune of approximately 200–500 crores under RMSA and SSA respectively, are spent annually for teacher training (Annual Work Plan and Budget 2016–17). However, more than 15 years after the inception of the SSA and more than 10 years after the publication of the *National Curriculum Framework* (*NCF*) *2005*, its vision is still a long way from being translated into most classrooms. The question being, where did all the training go? What did the training actually train teachers in? Why do we find a gap between teacher training and its classroom implications?

The *Fourth Policy Forum Dialogue* (NCTE 2012) reports some of these lacunae in in-service Teacher Education and professional development.

- The current training approach is fragmented, often leading to a situation that teachers repeatedly attend the same training programme year after year. Consequently, training often does not lead to capacity enhancement or content enrichment, or result in enhancing motivation levels of teachers to bring about changes in classroom practices.
- It is so mechanistically determined and organised in a top-down cascade process, thus de-contextualising and raising issues on conceptualising pedagogy as a mere collection of skill sets or knowledge.
- It is not the lack of good intentions, efforts, investment on teacher training programmes; it is about teachers taking positive steps towards improving their professional practice through the analysis of educational outcomes, meaningful feedback, self-assessment and desire to be a community of lifelong learners.

A comprehensive teacher development programme analysing the complete lifecycle and development path of the teacher, right from initial teacher preparation, selection and induction to becoming a teacher is still missing. The policies for different stages of Teacher Education are

largely seen as individual entities. Pre-service and in-service institutions and educators are neither the same nor in a sustained dialogue so as to be able to establish some kind of parity. Thus, the issue of building an effective model/mechanism that would make teachers take charge of their own professional journey and provide them avenues for it still remains unresolved.

Put together, it calls for a need to collaborate for a common purpose, giving individuals, groups, and whole school communities and systems the power to get involved in and sustain learning over time. In the words of the Bordia Committee (2010), it would be based on the principle of centrality of teachers making them the key movers for their own development. Developing professional learning communities (PLCs) appears to hold considerable promise in this perspective, it is voluntary and totally governed by the community of professionals than by authorities of power.

From 'Preparing Teachers' to 'Becoming a Teacher': A Journey of Self Development

As a student, I struggled with lot of concepts in school and literally rote memorised them for exams. When I grew up to be a teacher, I learnt the same concepts on my own and wondered why I could not get something so simple as a child. On discussion with peers, I realised this was virtually true for all of us who were into teaching. This made it apparent that teaching is one of the ways of learning; in fact, a better way of learning. It also told me that as a teacher, it was my need to appeal to the minds of the learners, understand their perspective, match my frame of reference with theirs and think, plan and look at a concept from multiple views so as to be able to reach the minds of my students. This attitude of taking charge of one's learning and viewing a concept from multiple angles appeared to be a sure-shot method of learning. I realised that as a teacher, I had taken charge of my learning, out of my need to reach my learners, unlike what I did as a learner. Thus, in a way, I was able to deconstruct the idea of 'teaching' and 'teacher'. Pedagogy, now, was not a given set of tools and techniques but a process of discovering and rediscovering the self and its engagement with the content, so as to reach out to the children. If this is true for young learners, it has to be equally true for adult learners as well. Later as a Teacher Educator, I realised that the entire approach in teacher preparation from pre-service to in-service was very reductionist, top-down and in a way not engaging the teachers in their own developmental journey. I found that in schools, the tilt is towards content, and in Teacher Education, the tilt is towards pedagogy. But in both cases, the individual faculty of the learner somewhere got lost in the overemphasis on either of the aspects.

'Becoming a teacher', I learnt is self-transformatory as against preparing teachers. It is an intrapersonal engagement, engaging with oneself as an individual, as a pedagogue, a learner, and a content expert and questioning and self-examining. It is a journey, a process of reflection, reformation and authentication, as against teacher preparation which is more predicative.

This is where the idea of reflective practice assumes importance, entrusting teachers as professionals capable of working towards their own development through the practice of reflection and, thus, capable of making a large number of instructional and classroom management decisions. Even in circumstances where the level of teacher preparation is low, this perspective believes in the potential of the teacher to challenge the rigid prescriptions and design their own contextual models of change, though some scholars challenge the notion that teachers in developing countries, with minimal preparation and resources, can reflect on practice and make informed choices.

Batra (2012), in the India Infrastructure Report emphasised the need for teacher development and teacher support rather than teacher bashing and teacher accountability. She also emphasised the need for focusing on improving the provisions that prepare teachers and develop them as critical thinkers and lifelong learners rather than just focus on learning techniques of being effective with students.

Professional Learning Communities: Addressing Diverse Learning Needs

Considering the wide array of issues and challenges both in school and Teacher Education, it becomes imperative to engage and empower teachers through continuous professional development. The following are some of the many factors that establish the need and significance of Professional Learning Communities.

Diversity of Schools

Considering the diversity in location, size, boards, curriculum, contexts in which schools function and the resources available to the teacher, multiple models of pedagogic practices need to be generated. This means that a pedagogic requirement for addressing the large diversity in schools is an overarching challenge. A common model, approach or pedagogy in all kinds of schools and learning requirements will not suffice. Therefore, there is a need to devise multiple models, teaching practices and strategies, with flexibility in pedagogical arrangements and school cultures. Professional Learning Communities established at different levels can provide the required space for discussion, dialogue and reflection for evolving context-specific methodologies for teaching-learning in single teacher or two teacher

multi-grade schools, or in a double shift urban slum school, schools in conflict zones or those in extreme rural and tribal context.

Need-based Teacher Development

In India, the present practice of in-service education for teachers is largely characterised by a top-down model which is fund-driven rather than need- or outcome-driven. This approach is proving to be quite ineffective in bringing any visible improvements in school education. The teachers' professional development needs therefore have to be based on five types of assessment frameworks.

Students' assessment

Students achievement records should not just be used as their performance indicators, rather these should inform teachers on the common errors made by students, the learning difficulties, the hard spots in teaching or difficult teaching areas, the need for alternative pedagogies and above all answer deeper questions like—are we teaching what we intend to? What are students learning? Can there be better ways of teaching?

Schools could use the teacher-made achievement tests (internal tests of school) as also the standardised achievement tests (example: NAS, QMT) as a basis for identifying the teaching-learning gap and thereby gather input for professional development of teachers.

Teachers' assessment

Conducting learning rounds to make teachers a part of their own classroom observation, coupled with teachers' self-assessment can form a very important tool for identifying training needs. This would give a trend of the teaching-learning process in the school, thus bringing the teachers together as a community, through self-reflection and quiet time, unbiased observation, non-judgmental feedback and raising a lot of questions. It would help them identify their core strengths and limitations so as to work for improvement. Schools could also use the PINDICs (Performance Indicators for elementary school teachers) app for teachers developed by the NCERT.

Environmental assessment

This can include information on the school's work culture, environment, day-to-day organisation from teachers, students and administrative staff. While the leader of the school plays a very important role in developing the environment, it is the teachers and students who nurture it through their behaviours, classroom norms and practices.

Stakeholders' assessment

Focus group discussions with teachers, students, parents and School Management Committee (SMC) can be carried out to share mutual expectations and efforts required to meet the school's vision and goals. In this manner, all the efforts in

teacher development are not just for the individual, but in alignment with the school's needs and for collective and institutional development, thus making schools the units of change, and teachers, the change makers.

Overall school assessment in line with the school's vision, mission and goals

This includes mapping the school's progress with the help of School Self Assessment and School Development Plan (SDP), fixing responsibilities and setting accountability frameworks for objective assessment, and drawing synchrony between Personal Development Plan (PDP) and SDP. The Shala-siddhi framework developed by NIEPA (2015) is a comprehensive framework in this regards which covers seven key domains beginning from ensuring physical resources to teaching-learning processes, student achievement, teacher professional development, school leadership, inclusion and community participation. Perhaps, if schools actually use this comprehensive data to map the school needs and subsequently teacher needs, and collectively chalk out the path towards improvement, there is no reason they cannot be transformed into organisations of learning.

Ownership and Empowerment

Researches across the globe have sufficiently proved that it is the learners taking charge of their own learning which makes learning sustainable and continuous. An integrated, holistic and comprehensive teacher development policy with a strategic implementation plan that recognises professional development as a lifelong process and empowers teachers for their own development is required. It recognises the importance of creating teacher networks primarily aimed at helping teachers facilitate change in the classroom. It would not just be about training, but about continuum of opportunities for teachers to improve their classroom practice; thus be responsible and accountable for developing themselves and others. This framework is based on the premise of assessment as learning and assessment for learning, and puts the heads of schools and teachers as key players in their own development.

PLCs: The Communities of Continuous Inquiry and Improvement

There is no universal definition of Professional Learning Communities (PLCs). PLCs may have shades of interpretation in different contexts but there appears to be broad international consensus that it suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way (Mitchell & Sackney 2000; Toole & Louis 2002); operating as a collective enterprise (King & Newmann 2001).

Hord (1997) blends the process and anticipated outcomes and defines

PLC as one in which the teachers in a school, and its administrators continuously seek and share learning and act on their learning. Their goal is to enhance effectiveness as professionals for the students' benefit. Thus, these could also be termed as communities of continuous inquiry and improvement. The notion therefore emphasises the potential of the community of professionals based inside or outside a school to mutually enhance each other's and pupils' learning as well as overall school development.

Seashore, Anderson and Riedel (2003) elaborate that by using the term PLC we signify our interest not only in discrete acts of teacher sharing, but in the establishment of a school-wide culture that makes collaboration expected, inclusive, genuine, ongoing and focused on critically examining practice to improve student outcomes. The hypothesis is—what teachers do outside the classroom can be as important as what they do inside in affecting school restructuring, teachers' professional development and student learning.

Professional Learning Communities: The Context in India

In India, the idea of having PLC was first mooted out in the Indian Education Commission (1964–66) and later reiterated in the National Policy on Education (1986) through establishment of school complexes. The Central Board of Secondary Education (CBSE) in 1987 brought the concept of 'freedom to learn and freedom to grow through *Sahodaya* School Complexes (SSCs)' which characterised SSCs as a voluntary association of schools in a given area, who through mutual choices, have agreed to come together for a systematic system-wide renewal of education process. In other words, as '*sahodaya*' signifies rising together, it identified six areas, to begin with, for collaboration amongst schools of its complex.

1. Educative Management
2. Evaluation
3. Human Resource Mobilisation
4. Professional Growth of Teachers
5. Value-oriented School Climate
6. Vocationalisation of Education

Through positive promotional efforts, the Board has helped schools come together and form an interactive and sharing relationship. At present, there are 260 such Complexes which are active throughout the country, and share and care for each other; particularly those which are in close physical proximity.

There has been a historical tendency in India (as in many other countries) to create sound policy and then either not implement it effectively (see, for example, Dyer 2000 on the problems of Operation Blackboard) or to neglect it at all (see, for instance, Juneja 2005 on RTE). A careful and systematic attention to meeting the needs of all kind and sizes of schools, and teachers and students

therein is therefore required in terms of both policy development and accompanying resource allocation for any policy to actually percolate in totality to the actual beneficiaries.

The fate of the concept of school complexes and PLCs as pronounced by Kothari Commission and NPE, 1986 also remained sealed; it however to a larger extent demonstrated good results through the functioning of the *Sahodaya* Complexes in CBSE schools in some parts of the country.

The *Rashtriya Avishkar Abhiyan (RAA)*, MHRD also has recommended the formation of 'Teacher Circles' for improving the teaching of science and mathematics. Teachers of science and mathematics in schools could be grouped by mentoring institutions in Teacher Circles at decentralised levels on a voluntary basis. The mentor institutions would endeavour to develop teacher capacities for teaching science and mathematics in new and empowering ways so as to render the experience of science and mathematics teaching in an engaging manner for children. Mentoring institutions would try to engage teachers as a community, with the depths and intricacies of specific subject details (science and mathematics) to propagate a culture of doing and creating knowledge through problem solving, programme and demonstration.

Revised *SSA* framework (2009) based on RTE clearly defines the roles of Block Resource Centre (BRC) and Cluster Resource Centre (CRC) coordinators in academically supporting and strengthening schools in the block and cluster through regular academic supervision, monthly academic meetings and monitoring of school-based improvement. It also clearly defines the roles of DIETs in capacity building of the BRC Coordinators (BRCCs) and CRC Coordinators (CRCCs) in the district, providing pedagogical and content knowledge, connecting and collaborating with colleges of Teacher Education in the vicinity as also the existing administrative structures existing at the block and district level. The Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching has initiated grants to different Teacher Education departments and other institutes of higher education for improving the quality of teachers and teaching through effective teacher networks and study circles, the results for which are awaited.

Developing a Professional Learning Community

There is an organic link between teacher development and school development. However, in the Indian scenario, teacher development is seen as an independent act executed largely by the Teacher Education institutes that more often than not work in isolation. Once a trainee becomes a certified teacher, there is hardly any connection that the colleges of teacher education or university departments have with the

in-service teachers or schools, except for the DIETs and State Councils of Educational Research and Training (SCERTs), that too, precisely with teachers in elementary schools. Thus, the teachers in the secondary and senior secondary schools are practically left out and live with a notion that being the senior most in the hierarchy, one does not require any exposure to learning. For developing schools as learning organisations, it is inevitable that each school challenges this compartmentalisation and hierarchy amongst levels and grades, and views school education holistically. Only then can we have the entire school community come together and learn from the practice of the other, through observation and reflection. It has been a common practice in the medical profession for a surgeon to be accompanied and assisted by colleague doctors and it is equally normal for a senior advocate or judge to be accompanied by other professionally novice lawyers and thus, master the art of the profession through careful observation and discussion of the practice of seniors. Such inquiry of practice is considered to be a professional norm which refines the practice of the seniors while giving substantial field expertise to the learners. Teaching seems to be the only profession where the professionals feel challenged in the presence of peers or fellow practitioners and find it derogatory to be questioned on one's practice thus leading to privacy of practice. Somehow learning as equals, and the art of being non-judgmental in approach has not been established in the profession, leading to an environment of insecurity, lack of trust and fear of being rated or judged. This leads to isolation amongst the teaching communities. Richard Elmore, a leadership expert at the Centre for Learning at Harvard University states, 'Privacy of practice leads to isolation, and isolation is an enemy of improvement'.

The first step therefore towards the creation of a PLC is breaking this isolation. The head of the institution plays a key role in creating such an environment that breaks the professional silence and isolation, and nurtures a democratic and transparent culture. Further, build a climate of trust where practitioners feel comfortable in sharing and accepting their shortcomings and grey areas, and take charge of their own development.

PLC: The NCSL Experience

The National Centre for School Leadership (NCSL, NIEPA) works with principals from schools across the country in building capacities so as to transform functional managers into academic leaders. The design used for the programme is shown in Figure 1.

In this structure, the team from NCSL, through a ten-day residential capacity building programme handholds the school head through a process of personal transformation,

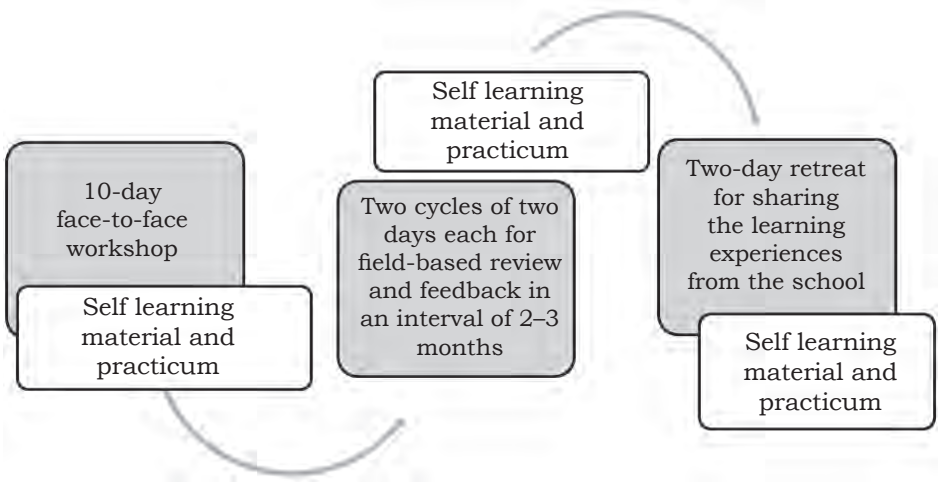


Figure 1. One-year learning engagement cycle

thus being able to lead in each of the fundamental roles of the head of a school. It begins from leading the self, the teaching-learning processes, leading innovation and change, teams and partnerships, and at the end, the overall organisational leadership. At the end of this ten-day residential workshop, every school head leaves with a transformative agenda and a draft School Development Plan which would be vetted with the stakeholders, thus developing ownership and collective commitment towards transforming schools.

Here the review and feedback workshops form the basis for understanding the role of each member of the community of professionals for their collective development. It brings people together, and motivates consecutive and consistent sharing. It also develops a feeling of trust and breaks the isolation gradually. This eventually develops a democratic culture necessary for learning.

In the first review after three months, all school principals bring their experiences of what works, what does not, what was initiated and what was stopped, what was learnt and what was unlearnt and many other minute aspects. This is shared in a two-day extensive review through presentations and exhibition. This group of school principals is connected through a Google and WhatsApp group, and also meets frequently that is, weekly or fortnightly in their districts, thus continuing the learning cycle.

Such cycles of review are conducted every three months, apart from the online networking. While not all school principals that receive training become a part of the

learning community, those who join, bring a lot of learning experience and motivation. PLCs are thus voluntary communities, and it is the enthusiasm and passion to do, share and learn that drives the professionals.

Professional Learning Community: A Case Study of Katrain, Kullu, Himachal Pradesh

The School Leadership Workshop coupled with the intrinsic motivation of the principals of the Cluster, the Deputy Director (Kullu district), and the passionate drive and academic guidance of the then District Commissioner, Kullu, intensified the leadership capacity building across the district and continued with regular district-wide monthly meetings of the school principals. This momentum gradually got picked up by the school principals of senior secondary schools across the Blocks and Clusters in Kullu. One such case is that of Shri Ghanshyam Kapur, Principal, Government Senior Secondary School, Katrain.

There are 17 Clusters in the district of Kullu, of which, Katrain is one. It has 17 schools, of which five are senior secondary schools, six are high schools and six are middle schools.

A careful study of the operation of this PLC brought to the fore the following observations that give an insight into the development and sustainance of PLCs. These could also be called the characteristics of PLCs.

Passionate and Unrelenting Pursuance and Leadership

While NCSL initiated the community of principals into a democratic dialogue, demonstrating the process and practice of PLCs, it would not have been without the initiative and effort of the Cluster and school leadership that nurtured and sustained it. Of the 60 school heads trained at the State level from the 13 districts of Himachal Pradesh, not all responded equally. Only 38 joined for the consecutive meetings and few Blocks and Clusters of the districts like Kullu, Mandi, Bilaspur and Hamirpur continued later without any outside intervention for their own development through passionate leadership in their Block or Cluster.

Shared Values and Vision

Having a shared value and vision is found to be centrally important to a PLC (Andrews and Louis 2007) because individual autonomy is seen as potentially reducing teacher effectiveness. For schools to function as PLCs, it is necessary to develop shared values and vision as a school community and also a community of learners which would bring coherence in the team. All the schools in Katrain Cluster came together with a common vision of improving learning for students as well as teachers.

Strong Focus on Instructional Culture

Improving learning for all was agreed upon by all Heads of Schools

(HoS) across the Cluster. To weave PLC around developing a strong instructional culture, Mr. Kapur began by conducting staff meetings in his school around teaching-learning gaps in different subjects and helped teachers decide targets for improvement in the next semester assessments. This eventually brought all the discussions focused around instructions and achievement data. This gradually continued to the Cluster meetings as well and all 17 schools eventually developed strong focus around instructions.

Use of Data for Sharing Observations, Feedback and Reflections

Schools are sopping with data in an era of data as a policy lever and a key deciding factor for most of the central funding. The chief question therefore is, should this data be limited to meet the purpose of external agencies or could it be more effectively used to develop an instructional focus and improve the quality of teaching-learning. The Katrain Cluster used the subject-wise data, the student-wise data, books and infrastructural data, parental participation data and much more to develop focused discussions and arrive at an action plan for each school which would then be followed up in the subsequent meetings.

Bringing all Stakeholders on-board for Whole School Improvement

Literature on PLC broadly agrees on the collective responsibility for student learning (King & Newman 2001; Kruse, Louis & Bryk 1995; Leithwood & Louis 1998). It helps to sustain commitment, puts peer pressure and accountability on those who do not do their fair share, and eases isolation (Newmann & Wehlage 1995).

Mr Kapur not only conducted meetings with the school staff and students, around the data but also with parents, some of whom only had degrees in primary or upper primary level and being a rich horticulture belt, they had actually engaged their children in the fields for economic benefits. These parents were sensitised through data on the efforts made by teachers during regular teaching hours and extra classes, the attendance records of their children, time devoted and their performance, promised to support the school in its efforts. This motivation became a learning for all schools in the Cluster. Stakeholder engagement which was erstwhile understood to be burdensome because of the strained relationship now attained new meaning because of ownership and collaborative relationship.

Reflective Professional Inquiry

Reflective dialogue (Louis et al. 1995), conversations on educational issues or problems involving the application

of new knowledge; de-privatization of practice (Louis et al. 1995), frequent mutual observation and case analysis, joint planning and curriculum development; seeking new knowledge all of these practices became the cornerstone of PLC at Katrain. Tacit knowledge of practitioners eventually started getting converted into shared knowledge through interaction (Fullan 2001) and applying new ideas and information to problem solving formed an essential character of professional exchange in PLCs. It also became non-negotiable for sustaining and thriving PLCs (Hord 1997).

Collaboration

This concerns staff involvement in developmental activities with consequences for several people, going beyond superficial exchanges of help, support or assistance (Louis et al. 1995) for example, monthly review and feedback at Cluster level. Feelings of interdependence are central to such collaboration—a goal of better teaching practices would be considered unachievable without collaboration. This does not deny the existence of micro-politics, but conflicts are managed more effectively (Hargreaves 2003).

During the Cluster meetings initially, it was observed that the degree of participation of all Heads of Schools and teachers was varied. A strategy was worked out wherein the conduct of the monthly Cluster meetings would happen in each of the seventeen schools of the Cluster. The school in which the meeting

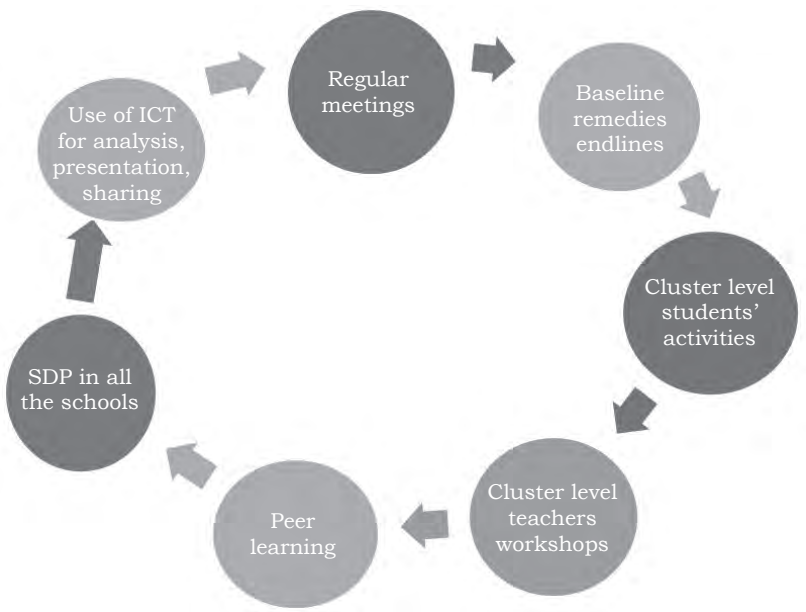


Figure 2. Strategy developed and used by the cluster for PLC with instructional focus

was held made arrangements for all the logistics, and the focus of the discussion for the day would particularly emphasise the quality in that school. In a way this structure compelled the participation of all, which eventually became motivating.

Thus, developing transparent mechanisms for sharing and reflecting would ensure building collective responsibility, where establishing one above the other or talking in binaries of right and wrong or good and bad is not important. What matters the most is how do we as the teaching community move ahead from where we are stuck.

Group as well as Individual Learning is Promoted

Professional self-renewal is a collective rather than a solitary happening. Collective learning is also evident through collective knowledge creation (Louis et al. 1995), whereby the school learning community interacts, engages in serious dialogue and deliberates on data, interpreting it commonly for all. In a nut shell, the school faculty, working as a PLC share a common understanding of how to go about getting to that vision.

When schools get organised into a professional community, the team sets higher expectations, improves pedagogy and relationships and performs significantly better (Louis and Marks 1998). The following was observed in Katrain Cluster as well.

- ***The teachers and head teachers set higher expectations for student achievement***
  It was observed that teachers in Katrain conducted target-setting workshops with students, took them through their achievement data and helped them establish realistic goals for themselves. Initially, neither the teachers nor the students could achieve the goals or make them realistic but gradually they learnt through experience.
- ***The quality of classroom pedagogy changes considerably***
  Schools in the Cluster changed the classroom arrangement from a column and row style (which compels the teacher to go on with the lecture and assume a more active and dominant role), to a cafeteria and seminar room arrangement where all are equal and have equal freedom to speak. This arrangement entails a change in the lesson plans and a more facilitative role on the teachers' side.
- ***The teacher-student relationship improves***
  This happened as students get more chance to interact with the teachers and the cafeteria arrangement and group rotation system brought a cohesive feeling thus, supporting peers and teachers as well in achieving ambitious learning goals.

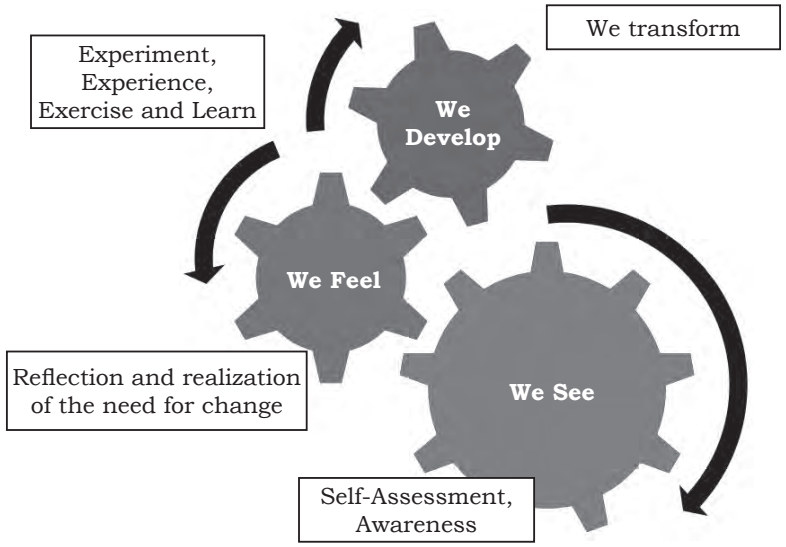


Figure 3. The Theory of Change / Process of Transforming into a Learning Community
Source: Adapted from Kotter, J. (2006). Our Iceberg is Melting: Changing and Succeeding under Any Conditions

- ***Achievement levels get significantly better***
  The schools significantly improved not only in the board results but it also conducted baseline and end-line at all levels and studied the overall school improvement.

Thus, the purpose itself becomes the outcome. As John Kotter in his book *Our Iceberg is Melting* mentions—for change to happen, people should be able to see, feel and only then they transform to develop. In Katrain Cluster too, the frequent meetings around data, teacher and student workshops on target setting, analysing and studying the gaps, reflections and collaborative commitment is something that led to transformed conditions.

Leading Professional Learning Communities: Role of Teachers, Principals and other Functionaries

It is very difficult to see a PLC develop in a school without the active support of leadership at all levels. Leadership is therefore an important resource in terms of head teacher/principal commitment and shared leadership (Mulford & Silins 2003).

School improvement and change literatures identify different phases of change (Fullan 2001; Mile 1998). Studying the change process that PLCs go through, researchers saw a progression from initiation to implementation to institutionalisation, as a means

of reflecting the growth in schools seeking to become PLCs (Huffman & Hipp 2003).

During initiation, the focus is on espoused values and norms; developing shared values and vision. Moving to implementation, there is a shift to developing a more transparent culture, reflective and non-judgmental feedback and focusing on high expectations. Institutionalisation actually is a result of members taking pride in their practice and committed to the shared vision and mission so as to pursue it consistently.

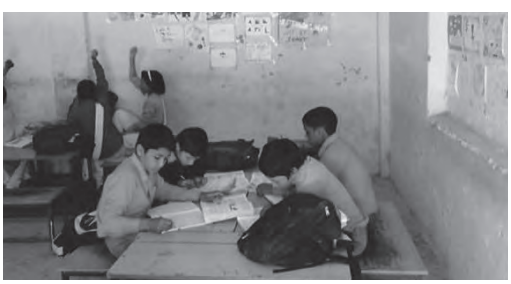
Conclusion and Recommendations

Schools in Katrain Cluster of district Kullu in Himachal Pradesh demonstrated the impact of collaborative learning amongst the community of teachers and heads of schools. It also pointed to the fact that teachers when put in charge of their own development, deliver better commitment and results. This entails policy reform in teacher professional development which includes the following.

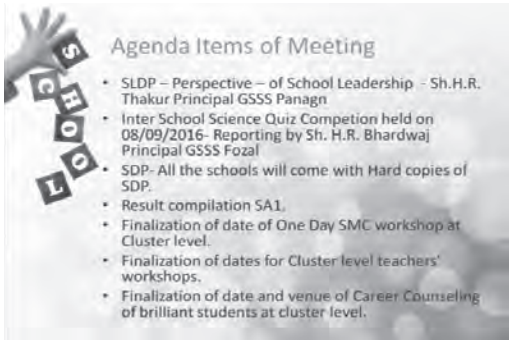
- Teachers in charge of their own professional and life-long development
- Exposure and opportunities to learn from other contexts and practices
- Decentralised, outcome-oriented capacity building programmes which have school contexts and needs in focus
- Linking Professional Development Plans of teachers with School Development Plans
- Creating platforms, teacher forums, networks for exchange of ideas within and outside schools through newsletters, wallpapers, school, Cluster, Block and District level magazines.
- Using overall school assessment data for development and professional motivation

These measures would go a long way in developing and nurturing the school-based human resource and sustain a collaborative and accountable professional community.

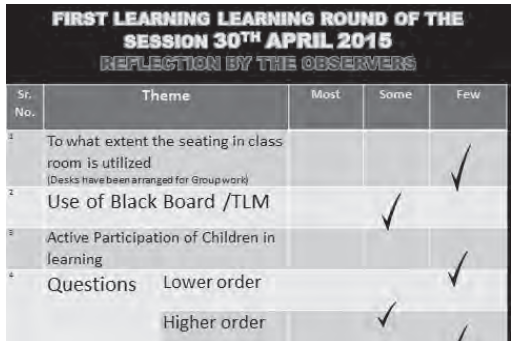
Faculty meeting around achievement data at GSSS, Katrain



Peer Group Learning at GSSS, Bagipul



Discussion on agenda in one of the cluster meetings



First Learning Round at GSSS, Katrain, Kullu

Monthly meeting with students at GSSS, Bagipul

Counselling students on target setting

Figure 4

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Fostering Entrepreneurial Skills through Education

Priya Srivastava*

Abstract

Over the years, entrepreneurial mindsets have shown to be in the foundation of every vibrant society; a society which has seen inclusive growth without sacrificing any geographical region and improved the standard of living of all its members.

While education lies in the foundation of all human development, entrepreneurship is not given the same kind of attention in education as other core subjects. Perhaps entrepreneurship is viewed through a narrow slit of scepticism which equates it with money matters alone, and societies the world over have stressed upon the need to keep 'students away from money to avoid its corrupting influence'.

What is ignored in this approach towards entrepreneurship is the fact that successful entrepreneurs are not the kind of people who are obsessed with acquisition of money, by hook or by crook. But they are people with such personal qualities, which if imbibed by others, can help take their careers or businesses to greater levels of success. These qualities include creativity, sense of initiative, spirit of innovation, challenging the status quo to find better alternatives, drive for advancement and growth, perseverance and courage to face challenging situations, managing and being responsible, ethical, etc.

It is therefore the need of the hour to include entrepreneurship education in mainstream education.

Introduction

The word entrepreneurship is most commonly used in the context of persons starting out in their new business ventures, fighting against the established players and finding a

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niche for themselves in the market. But the word means much more than what it is commonly believed to mean. It implies the general attitude which includes taking initiative, leadership, risk-taking, a strong sense of ownership and responsibility of successes and failures alike, doughty grit and perseverance, and an indomitable spirit to fight against the odds. They struggle till they emerge winners. The people who have entrepreneurial mindset almost always move up in business or career, family or social life.

Education for Entrepreneurship

Often, it is asked whether one can be trained to be an entrepreneur? It is easy to guess why such a sceptical question is asked. It is because in the foundation of entrepreneurship lies the entrepreneurial thought, which, it is generally believed, cannot be taught. It is said that entrepreneurship is an innate talent which cannot be learnt. One has to be born an entrepreneur.

Another doubt expressed about education for entrepreneurship is whether the academics are the right choice to impart knowledge to, about entrepreneurship? Would it not make more sense that entrepreneurship be taught by entrepreneurs themselves? Who would share their vast experiences about what they went through and how they overcame those obstacles?

While these arguments do hold ground, there are certain aspects which can definitely be taught, and those with innate flair for entrepreneurship would excel with this knowledge. Others would do well in their careers as professionals due to the awareness about the skills and competencies which characterise entrepreneurship.

The approach towards teaching entrepreneurship has evolved with two distinct lines of treatment—one which deals with the skills and personal qualities which make a successful entrepreneur, and the second, which deals with the specifics of establishing a new business, making the students aware about the possibility and potential of taking up business as an occupation instead of becoming an employee.

Mainstream Education and Entrepreneurship

The conventional teaching which is imparted to learners stresses almost exclusively on making students conform to the standards, being able to learn what is taught and write the exams accordingly. Or as is quite often said in corporate training, learning to colour within the lines. Entrepreneurship, on the contrary, thrives on challenging the status quo and thinking differently. It is a very well known fact that entrepreneurs think differently. They question conventional wisdom and seek creative solutions to problems. In fact, creativity and divergent thinking are two crucial ingredients for successful entrepreneurship.

A study by George Land, the author of *Breakpoint and Beyond: Mastering the Future Today* involving over one thousand children was conducted. These children were tested for their divergent thinking using a test (similar to the one conducted by National Aeronautics and Space Administration (NASA) to identify creative engineers and scientists) at the ages of five, ten and fifteen years. The results showed that the ability to think divergently actually dropped with age. While the five-year-olds scored 98 per cent, the ten-year-olds scored 30 per cent and the fifteen-year-olds scored the least at 12 per cent. When the same test was administered to adults, they scored an abysmal 2 per cent. Clearly the conventional schooling which stresses on following instructions based upon a prescribed curriculum throttles the capability to think creatively.

Teaching Entrepreneurship

Creativity skills are learned by doing and not by learning theory in a classroom, by experiencing and applying creative thought process to innovate and discover newer answers, all the while using imagination and inquisitive questioning. This kind of free flowing thought process is stifled by conventional school education.

Saraswathy S. while studying the cognitive process of entrepreneurs found out that they used different reasoning while making decisions about their businesses. According to her, 'Entrepreneurs are entrepreneurial as differentiated from managerial or strategic, because they think effectually: they believe in a yet-to-be-made future that can substantially be shaped by human action'. It is the *effectual* thinking of entrepreneurs, as against the *causal* thinking of others. Causal thinking tries to find the optimal resources and means to achieve a predefined goal. In contrast to this approach is the effectual thinking employed by the entrepreneurs which begins with the given set of resources and constraints and follows the goals which emerge from the effort. In fact, the goals keep evolving over time and better ways to achieve them keep emerging too.

At the desirable level, teaching entrepreneurship to young learners would include:

- encouraging the development of personal qualities which are fundamental to being a successful entrepreneur, including creative thinking, taking initiative, risk taking abilities and ownership (or being responsible) of the actions—successes or failures.
- equipping the students with managerial tools and techniques which specifically help them in setting up their own ventures; things such as market research, business planning, sales, negotiation techniques, customer focus, quality consciousness, financial and accounting practices, etc.

Fostering Entrepreneurship through Education

Entrepreneurship can be merged with the conventional, mainstream curriculum at all the levels of learning. Focus must be on enhancing creativity, initiative, responsibility, ownership, etc. At the levels of higher secondary education, specialised subjects pertaining to entrepreneurship can be offered as electives, supplementing the core subjects. In this way, a good foundation can be laid during the early years of education. Subsequently, a more specialised business-related knowledge can be imparted.

This approach towards fostering entrepreneurship through mainstream education entails alteration in pedagogy. This by no means is a small course correction. In fact, it is nothing short of a paradigm shift. From treating entrepreneurship and business studies as extra-curricular appendages to a part of the mainstream curriculum requires a total change in the mindset of both teachers and learners alike. The features of such a programme must include the following.

- A qualitatively superior exposure to the students, to the 'entrepreneurial way' so that they develop a strong sense of the usefulness of the programme
- Make them aware about the skills needed to become a successful entrepreneur.
- Offer them the opportunity to acquire experiential learning so as to make the learning long lasting as well as fostering a sense of accomplishment, leading to enhanced self-confidence.
- Challenge the students to come out with innovative ideas, action plans and solutions to reach their goals and improvise them as the need arises.
- Make them responsible, take ownership, drive the outcomes, align them with predefined business objectives and stand up in the face of stiff competition.
- Introduce them to the concepts of business planning, sales, customer service, quality management, accounting, communication, leading teams and driving business results.

Why to Integrate Mainstream Education with the Development of Entrepreneurship?

Education is one of the most crucial components in a nation's development. In fact, it enables the creation of competent human resource, so crucial for creating the growth infrastructure. It develops the dignity of individuals and labour. In the absence of education, there would be no technological advancements or proper utilisation of natural and human resources, no economic growth, no food security and no advancement in healthcare.

Education opens up the whole world for people to learn from, to exchange knowledge and learn from

each others' experiences of success and failures. It motivates people to change and evolve into better societies. It ignites their imagination and drives them to aspire for higher achievements. This aspiration leads to chain reactions of development of several allied fields, whereby millions of people earn better and have higher standard of living. As many new opportunities open up, entrepreneurship blossoms too.

Education, therefore, is the life force of every society, and it is logical to connect every aspect of the development of human resource, including entrepreneurship with it.

Where is Entrepreneurship Education today?

Entrepreneurship education is not treated at par with the core subjects of the prescribed curriculum. It is typically treated as an add-on activity and is therefore confined to the fringes of mainstream education.

The Government of India has started giving a lot of emphasis to make entrepreneurship a huge factor in providing answer to large scale unemployment in India. But despite this, it is still a distant object as far as getting it into mainstream curriculum of secondary and higher secondary schooling concerned.

All training and entrepreneurship development programmes are designed as stand-alone interventions, which at best can be treated as slightly detailed awareness sessions. They cannot be substitutes for a sustained education, spread over several years, addressing each aspect of not just specifics of business but also the personal capability aspects of individuals as well.

In the absence of a systematic entrepreneurship education progra mme, the schools or colleges where some attempts are made to teach this, have to depend upon private players of one of the Non-governmental organisations (NGOs) for the inputs on latest trends and practices in the market/industry.

There are however, advanced courses available in almost all the business schools where entrepreneurship is taught to students of management, but of course these are postgraduate programmes.

How can the System be Improved to Impart Quality Entrepreneurship Education?

- It has to start at the national policy planning level. A consensus needs to be established between the Union Government and the State Governments to make this transition from purely academic-oriented education to the one which includes real life subjects too. The ministries of human resources, commerce, industries and labour to name a few, must pool in their ideas and evolve a comprehensive education policy which addresses the issues being faced in entrepreneurship education.

- The next critical item in the list is the availability of trained teachers. Teachers need to be trained in the new concepts which are related to entrepreneurship education.
- Adequate knowledge resources in the form of textbooks, workbooks, interactive content along with holistic assessment system which ensures the delivery of right learning outcomes.
- Since entrepreneurship is all about business and industry, there must be a systematic approach to facilitate a robust and meaningful interaction between the schools and business.
- Every geographical location has its own local trade and commerce which specialises in some specific products, commodities or services. Therefore, it is in order that the schools be included in the overall policy of local or regional development authorities.

Entrepreneurship in Primary and Secondary Schools

In order to teach entrepreneurship in schools, the course content which is appropriate to the age of pupils must be designed. This should cover all aspects such as knowledge, attitudes and skills, etc. The personal qualities including the ability to take initiative, independent action, being responsible, creativity, innovation, etc., should be developed which will help in developing entrepreneurial attitude. This will not only enable those students who set up their own ventures later on, but also those who opt for employment in organisations. Active and autonomous forms of learning, coupled with knowledge gained through interaction with businesses will enable them to better appreciate the role of entrepreneurs in society, which will in turn prepare them to become one if they so choose.

Early Vocational Training at the Secondary Level of Education

Vocational training imparted at this level is very effective because of the age and intellectual development of students. They can appreciate entrepreneurship in a much better way and are also eager to learn more. Their curiosity about career options and anxiety about their future provide the most conducive learning environment. Such vocational training can also be aligned to provide them the skills to perform in the local or regional markets.

This will be in contrast with the current practices in vocational trainings where only the technical aspects of the trade are dealt with, making them skilled workers but completely ignoring the entrepreneurial side, which would enable them to become self-employed.

Learning by doing and mini enterprises

Hands-on experiential learning must be a significant part of the course content along with theoretical studies. It becomes very easy to learn

and retain the learning if practice exercises emulate entrepreneurial environment.

Many institutions encourage students to participate in earn-while-you-learn schemes. This exposure is the closest to being an entrepreneur.

Training of Teachers on the Subject of Entrepreneurship

Since teachers play a vital role as an agent of change in the society, we should focus on the training of teachers in this regard. Teachers maybe taught about entrepreneurial teaching as part of the regular curriculum of their teacher training course for the new joinees. For the existing batches of teachers, workshops and seminars can be organised to enable them to come up to the required level. The purpose of their training is—

- To create an awareness of the need and importance of entrepreneurship
- To impart knowledge and develop skills in diverse training methods in imparting training to students
- To plan curriculum that can imbibe the skills and competencies to achieve goals directed by values, have a positive attitude and have the ability to cope with the changing times
- To develop teachers with the entrepreneurial and professional mindset
- To make them aware about the promotional, financial and regulating scheme of MSME
- To guide them for the techniques of preparation of feasible and viable project
- To provide exposure to small enterprise market survey techniques and tools of market survey

Entrepreneurship has very little to do with money. It is instead an attitude, a way of thinking. It focuses beyond simply starting a company. In other words, not all people who start their own organisation can necessarily be categorised as entrepreneurs. Entrepreneurs challenge assumptions, recognise opportunities in a period of change, reveal patterns where others see chaos and mobilise limited resource to achieve an objective.

However, what must be emphasised is that the teachers appreciate the need and usefulness of entrepreneurial teaching; it is essential for their being motivated to teach the subject well. Trainers and instructors from the business and industry along with the successful entrepreneurs, can be brought to train the teachers in this field.

Summary

Entrepreneurship education affords the students to carve out for themselves more successful careers, irrespective of whether they set up their own businesses or opt to become an entrepreneurial worker

in someone else's organisation. The qualities defining the entrepreneurial mindset make them more productive of all workers. So it is a win-win for everyone.

For instance, efficient networking and communication skills are two very important attributes of persons who excel in their career. These qualities can be learned during the schooling as students go through entrepreneurship education. Students can gain these type of simple but crucial techniques, which are the desirable traits of an effective future employee or business person, through entrepreneurship education.

It is also well known that students perform better academically when the learning environment comes close to their personal locus of control, because they can engage more effectively in their studies. Moreover, entrepreneurship education affords the students the opportunity to develop skills which are in demand in the marketplaces of today.

While every year thousands of start-ups are set up, only 10 per cent survive their first year of existence. Of these survivors, hardly 2 per cent make it to their fifth birthday. The problems these enterprises face are very common. They include low revenues, stagnant growth, limited access to capital and human resources. But one common thread which runs through all the still born businesses is the limited availability of specialised training and the absence of a long family history of business ownership. Since they did not learn how to run a business in their families, they fail to run the one they set up.

Since the new entrepreneurs did not have the opportunity to learn the nitty-gritty of running a business at the dining table, they should be given the opportunity to learn about it in schools or colleges. This is the philosophy behind fostering entrepreneurship through education.

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Everyday Dilemmas and Challenges of a School Teacher

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Abstract

It is often a popular perception to consider a school teacher's job as unchallenging, monotonous and repetitive. The authors, using the framework of Berlak and Berlak (1981), found out that in the perceptions of teachers themselves, their job is extremely stressful, involves critical decision-making and resolution of dilemmas on a daily basis, and it is often a non-rewarding endeavour. The majority of teachers' dilemmas centered on the issues of control mechanisms, curriculum transaction and societal concerns.

The present study explores four research questions: (1) what are the daily dilemmas faced by the teachers while transacting curriculum, (2) what are the underlying reasons for the most stated dilemmas from the perspectives of teachers, (3) besides teaching the prescribed content, what are the expectations and responsibilities from the teachers, (4) how do teachers perceive their role as agents of change and transformation in a school? The sample of the study comprises 30 teachers from two government schools and two private schools teaching the middle grades. The data has been collected through semi-structured interviews and focus group discussions over a course of two months.

Introduction

As Teacher Educators, it has been the authors' common observation that many teaching aspirants join Teacher Education programmes (such as B.Ed., B.El.Ed, D.El.Ed) with certain perceptions and assumptions about the teaching profession.

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Some of them include—to teach is to learn certain skills to deliver the content of the textbooks; teaching till elementary grades is a simple and non-challenging task; teaching young children is 'fun' as they do not ask and question; the teaching profession is ideal for young women as it is a half-day job; once a school teacher, one does not need to read any more as the same content will be repeated every year. However, for those who are practising teachers or associated with the education system, the act of teaching is not as simplistic, but instead, is full of challenges and dilemmas on an everyday basis. The authors attempt to contextualise a few of these dilemmas arising out of the hierarchies in a school system, such as the status of a teacher in decision-making, the voice and agency of a teacher and interface of educational policies, and everyday practices of teaching and learning.

Many scholars perceive teaching as an art, science and craft. It is representing a metaphor to understand the complexity of the teaching and gain insights into the nature of teaching.

> *The metaphor of 'art' emphasizes the affective and creative aspects of teaching and learning as well as use of intuition in forming judgments. The 'science' of teaching conjures an image of the application of tested knowledge, whilst emphasis on the teachers 'craft' affirms the particular significance of practical experience* (Pollard et al. 2014, p. 12).

Teaching is also perceived as an intricate and multifaceted activity by many scholars, which requires teachers to utilise their judgment in deciding how to act. Teacher's professional expertise is required for quality teaching and learning. It requires teachers' personal and professional knowledge and skills for taking the daily classroom decisions. Moyles (2007, quoted in Marsh) refers to the desirable personal attributes such as empathy with the students, respect for individuals, positive outlook and attitude, approachability and sense of humorThe professional attributes that are desirable include good organisational skills, professional relationships with the staff, parents and students, and appreciating others' skills.

Berlak and Berlak (1981) have given a powerful framework to represent the difficult dilemmas that teachers face in a school. They have taken into consideration the 'micro' and as well as 'mega' world. The 'micro world' is a classroom whereas the 'mega world' comprises the major factors, beliefs and influences in society as a whole. These factors give rise to teachers' dilemmas, ultimately putting an impact on the actions, choices and decisions of the teachers. They identified sixteen dilemmas of teaching practice which represent the complexity of teacher's actions. They have divided them into three sets—control, curriculum and societal. The 'control' set represents the tension over the locus and extent of control

over students; the 'curriculum' set represents the contradictions and controversies over transmission of knowledge and the ways of knowing and learning whereas the 'societal' set focuses on contradictions in schooling patterns related to equality, justice and social relations between ages, sexes, ethnic and racial groups. These dilemmas are briefly discussed as follows.

Control Dilemmas

- *Whole child vs. child as student:* It refers to the realms where the teacher has a dilemma over the responsibility of the child. A teacher with whole child emphasis feels that she has the responsibility of children's aesthetics, intellectual, social, emotional, physical and moral development, whereas a teacher with child as a student emphasis focuses only on the intellectual and cognitive areas.
- *Teacher vs. child control of time:* It refers to the dilemmas capturing the control given to students or teachers for the initiation of activity and duration of activities in the teaching-learning process.
- *Teacher vs. child control of operations:* It refers to the control that the teacher exerts on the student's behaviour in the various curricular domains, whereas child control means that the child is exercising control over one's behaviour.
- *Teacher vs. child control of standards:* It refers to the dilemma over the monitoring of teaching standards that is, whether it should be done by a teacher or a student.

Curriculum Dilemmas

- *Knowledge as public vs. personal:* Teachers also often face the dilemma on whether to emphasise the experiential knowledge that is useful to learners or to focus on knowledge that has evolved with time as a part of the culture.
- *Knowledge is product vs. process:* This dilemma is regarding the take on knowledge that is, whether to view knowledge as a fixed, organised body of information, facts, theories and generalisations, or to view it as the process of thinking, reasoning, and testing to establish the truth of the body of knowledge.
- *Knowledge as given vs. problematical:* It refers to the dilemma whether to consider knowledge as given by the teacher that is, to perceive it to be thetruth which is present out there or to understand knowledge as being constructed by the learners, taking into consideration their social, cultural and political influences.
- *Intrinsic vs. extrinsic motivation:* It refers to the dilemma on motivation that is, whether the motivation to learn comes from the student (intrinsic) or from teacher action (extrinsic).

- *Learning is holistic vs. molecular:* When we are taking learning as holistic, then the learners arrange the bits of information into a whole giving meaning to the elements; whereas learning as being molecular means that the learner has mastered over the carefully sequenced bits of information and ultimately, automatically grasped the whole.
- *Each child is unique vs. the member of a category:* The dilemma is to choose students' interest or society's perceptions that is, what the society expects the students to learn for the formulation of curriculum.
- *Learning is social vs. individual:* It shows whether the learning takes place between the child and the subject matter or the child and teacher. Learning as social refers to the interactions and discussion among learners for effective learning.
- *Learner as person vs. client:* Learner as a person means the teacher is treating the learner as a fellow human being whereas learner as a client means the receiver of needed professional services.

Societal Dilemmas

- *Childhood is continuous vs. unique and separate:* It refers to the dilemmas of treating childhood, that is, whether to treat childhood as a time to prepare for adulthood or a time to treasure and set aside.
- *Equal vs. differential allocation of time, materials and resources:* It represents the dilemma over time, materials and resources that is, how should the teacher distribute the mentioned resources, whether equally or differentially among learners.
- *Equal justice under the law vs. ad hoc application of the rules:* It shows the dilemmas over the implementation of rules and regulations in the school that is, whether rules should be the same for all or there should be flexibility in it according to the situation.
- *Common culture or sub-group consciousness:* It portrays the dilemmas on the development of a shared culture or the culture of sub-groups among students.

The authors have used this framework and the dilemma language to construct the open ended interview questions and cues for the focus group discussion in the discussed research study.

Research Methodology

Research Design

The present study is exploratory in nature as our aim is to achieve insights into the chosen subject. Here, the researchers start with a general idea and use research as a tool to identify the issues that could be the focus for further research. It provides an opportunity for clarifying and defining the nature of the problem.

Statement of the Problem

To understand and contextualise the dilemmas of teachers in the everyday life of a school

Research Questions

The present study explores four research questions.

1. What are the daily dilemmas faced by the teachers while transacting curriculum?
2. What are the underlying reasons for the most-stated dilemmas from the perspectives of teachers?
3. Besides teaching the prescribed content, what are the expectations and responsibilities from the teachers?
4. How do teachers perceive their role as agents of change and transformation in a school?

Sample

Thirty teachers from two government and two private schools teaching the middle grades were included in the sample of this study. The teachers were selected on the basis of their willingness and availability to participate in the research study. Teachers from different subject areas and type of schools (private and government) were chosen to normalise any bias introduced due to the subject area of the teacher and to explore the dilemmas in the wider dimension of the education system.

Tools of Data Collection

The most common sources of data collection in qualitative research are interviews, observations and review of documents. The present study makes use of semi-structured individual interviews and focus group discussions done over a course of two months.

The preferred method for collection of data is to record the interview if the interviewee allows; otherwise, the interviewer must maintain notes simultaneously and expand on them immediately after the interview, as the information is still fresh in the interviewer's mind. Patton (quoted in Best and Khan 2006) observed that 'the quality of the information obtained during an interview is largely dependent on the interviewer' (p. 341). Patton (2000) in the book Qualitative Education and Research Methods" explains the strengths and weaknesses of semi-structured interview. The semi-structured interview consisted of open-ended questions. Its purpose was to access the perspectives of the person being interviewed. The questions for the interview were developed, drawing inspiration from the framework of Berlak and Berlak. Some questions which were asked included—how would you describe the children you are teaching, how should students behave in the classroom and why, whether the curriculum allows you to incorporate students experience in the teaching-learning process or not, do you find any difficulty in such incorporation, can you share some ways or activities that you use in your teaching besides chalk and talk, what are the issues involved in it,

can the answers given by students be included in the notebook/exam work, why or why not, etc.

Powell, Single and Llyod (1996) define a 'focus group' as 'a group of individuals selected and assembled by researchers to discuss and comment from personal experience, on the topic that is the subject of the research'. In it, an interactive environment has been built where participants are free to talk to each other. The researcher can take notes or record it as per the convenience of the participants. However, the researcher has to be cautious regarding the selection of participants of the group for effective responses. For the study, focus group discussions were carried out by giving few hints and eliciting responses from the teachers. Some of the hints given to teachers were—what are the issues/challenges that you face the most while teaching? Who takes the decisions related to structure, organisation and pacing of the curriculum? Define/locate your role in these decisions. How is your interaction with the higher authorities, peers, students and parents like? How do you resolve the issues of behaviour, irregularity and non-participation by the students? Do you think these issues should be your responsibility—why or why not? What are your aspirations and expectations from your students? What is the non-teaching/administrative work you do in the school? To what extent is this work justified, etc.

During the focus group discussion, one of the authors used to keep a written record of the discussion. These notes were later systematically written and organised.

Data Analysis

Based on the responses given by the interviewed teachers, the data has been analysed under the following discussed themes:

The Burden of Non-teaching Work

Almost all the fifteen teachers interviewed from the private schools stressed that besides regular teaching, participation in the administrative, extra-curricular and bus/recess duties took most of their time in the school. In the words of a young teacher, 'I have morning duty at the foyer to check students' uniforms, recess duty in the school corridor to make sure students are not running and hurting themselves, and bus duty when the school closes. This leaves me with no time to know my students very well or interact with my peers. I feel like a guard or watchman with the duty of disciplining and minding the students'. Krishna Kumar (2011) also argues that teaching, as part of government service carried with it considerable clerical work, such as maintaining records of admission, attendance, examination and expenditure, making the teacher a meek subordinate. The situation was no different for the government school teachers who were involved in the distribution of Mid-Day

Meal, textbooks, uniforms, notices, forms, medicines and sanitary napkins. They were also involved in election duties, for conducting any government survey and opening of bank accounts for the students. Section 27 of The Right of Children to Free and Compulsory Education Act, 2009 prohibits the deployment of teachers for non-educational purposes. Section 27 states that 'No teacher shall be deployed for any non-educational purposes other than the decennial population census, disaster relief duties or duties relating to elections to the local authority or the State Legislatures or Parliament, as the case may be' (p. 8).

> I have to reach school before 7:40 AM or else I am not able to sign the attendance register on time. For this, I catch the school bus at 6:45 AM and my official duty starts while taking attendance for the students travelling on that bus route. Out of eight teaching periods, I have five periods on a daily basis and I am given one or two substitution periods depending upon the number of absent teachers. Besides that, I have recess duties and afternoon bus duties. We also have two staybacks in a week, and let us not forget the countless notebooks to check. I feel numb, tired and mechanical at the end of the day. Teaching is just a job where I try to finish the prescribed syllabus as I have no energy left for anything else.
>
> *– Jaya, middle grade teacher in a private school*

Agency and Voice of Teachers

All the interviewed teachers stressed that they have been excluded from the decisions regarding the content, organisation and pace of the syllabus. Also, the decisions regarding the methodology of teaching and teaching-learning materials are taken by the people who have never entered the teacher's classes or interacted with the children studying there. For instance, reflecting on such dilemmatic decisions about her class, a private school teacher shared that there are times when she wants to spend more than the 'prescribed' time on a given topic, as students find it interesting or it is more difficult but she cannot do it because the dates for exams and assessment are prefixed.

Poonam Batra (2005) in the article 'Voice and Agency of Teacher-Missing Link in the National Curriculum Framework 2005' stresses the need to acknowledge the crucial role of agency of the teacher in Indian classrooms to attain NCF's vision of schools as site of social transformation. It is important to recognise teachers as more than the dispensers of knowledge and acknowledge them as independent, rational and critical thinking beings who can address the issues of marginalisation, inclusion, multiple identities and diversity with the children. These concerns, if addressed in accordance with popular perceptions and personal

beliefs of the teachers can lead to the formation of biased partial views of social reality. Hence, there is urgent need to equip teachers with multiple perspectives to bridge the gap between the existing realities and proposed possibilities.

Many government school teachers praised the recent government policies and schemes which are aimed at curbing the dropout rate of students and improving the quality of education, with special focus on students weaker in studies. However, they also criticised that such crucial decisions are implemented on a very short notice and with a sense of urgency. Many a times, the schemes have such unrealistic and impractical targets that it becomes very stressful for the teachers to achieve their aims.

> We are expected to do creative reading and writing with children when they can barely recognise letters; we are not blaming the children as it is not their fault and many of them are first generation learners. But to expect that we can do wonders in school when we have enormous administrative and non-teaching duties is unrealistic. On top of it, there is never an incentive and appreciation by the higher authorities. The learning level of children is judged by filling up of answer sheets which are not true representation of children's learning.
>
> *– Maya, middle grade teacher in a government school*

> It was anticipated by the government that the teachers mapped and identified weaker students on the basis of their intellectual ability and scores. Students were then divided into three groups — *Pratibha*, *Nishtha* and *Vishwas* in the time span of two months only. It was expected from the teachers to develop the basic reading, writing and speaking skills till 14th November 2016 that is, within a period of four months and it was a burden on us to turn the non-readers into readers in a short span of time.
>
> *– Jyoti, middle grade teacher in a government school*

Giroux (2004) stresses on making teachers as 'Transformative Intellectuals', which means that the teachers act as a change agent by making the pedagogical more political and the political more pedagogical. Making the pedagogical more political means to overcome economic, political and social injustices by developing critical reflection in the teachers and to further humanise themselves as part of this struggle. Making the political more pedagogical means utilising those forms of pedagogy that embody political interests that are emancipatory in nature that treat teachers as critical agents, utilise critical and affirming dialogue and make the case for struggling for a qualitatively better world for all people. It helps the students to develop into active citizens and engage in social change.

Status of a Teacher in the Hierarchy of a School System

The authors found contrasting views about hierarchies in different school set- ups. The concept of hierarchy was very prominent in everyday decisions to be taken by the private school teachers. Issues such as misbehaviour, physical fights, non-completion of homework, student absenteeism, etc., have to be immediately reported to the higher authority. The teacher does not have the liberty to take any action on her own. Even students and parents are aware about the position of teachers in such a hierarchy, and they use this understanding to complain against the concerned teacher on matters of syllabus completion, notebook checking, engagement with the children, etc. There is always a fear of losing the job among the private school teachers if they are not able to work upto the expected levels or there are continuous complaints about their behaviour, professionalism and teaching style by parents or students. Padma Sarangapani (2003) also asserts that in her observed school, 'the headmaster exercised authority over all the teachers. Among the teachers, there was no institutional hierarchy' (p. 104).

The government school teachers shared that although, they have the freedom to take decisions on their own about the routine activities such as non-completion of homework, low academic performance, long absenteeism, etc., but they have to consult the higher authority for the major issues such as extreme physical fights, aggression, suicidal tendency, eve teasing, etc.

Krishna Kumar in his book *Political Agenda of Education* highlights that many aspects of the education system are derived from colonial legacy; the teacher can no longer decide on one's own, or on the basis of one's convention what to teach and how to teach. The colonial education system has drastically changed the status of the teacher where the teacher has become a mere functionary of the state, working for the salary. The prescribed syllabus, textbooks, and impersonal examination meant that no teacher could pace his pedagogy to suit his pupils. It became the responsibility of the 'subject experts' and 'external examiners' to educate and assess the students.

Interface between Policies and Ethical Concerns

Policies are implemented at the government level with the intent of improving the quality of education system. But various aspects of the policies make it difficult to be implemented in the classroom and thus, create a stress on teachers. We will see how the ethical dilemmas are arising among teachers w.r.t implementation of policies.

Section 16 of the RTE Act (2009) states that 'no child admitted in the school shall be held back in any class or expelled from school till the completion of elementary education' (p. 6). This section of the RTE Act has raised

many eyebrows of both government and private school teachers who have shared their concerns about the children's actual learning level and their ability to perform in the teaching-learning process.

> With the introduction of Non-Detention Policy, there is a difficulty in maintaining discipline in the classroom, and children have non-serious attitude towards studies as students are very well aware that they will not get failed till Class VIII.
>
> *– Rekha, middle grade teacher in a private school*
>
> When students come in Class IX, they are not able to cope with the academic pressure because they are not in the habit of continuous habit. They end up repeating or dropping out of the ninth or tenth grade.
>
> *– Sudha, middle grade teacher in a private school*
>
> How do you expect us to pass a student when she is submitting a blank answer sheet with incorrect spellings of even her name. We end up filling the answer sheets ourselves so as to pass them…
>
> *– Pooja, middle grade teacher in a government school*
>
> We also write answers to the questions asked in the examination so that students can "copy" them and are able to pass the examination, otherwise also we cannot fail them.
>
> *– Uma, middle grade teacher in a government school*

Section 17(1) of Right of Children to Free and Compulsory Educcation Act (2009) prohibits the use of physical punishment or mental harassment. Studies have found consistently high levels of reporting of corporal punishment by children in schools with little difference between private, state government and central government schools (Portela and Pells 2015).

Representation of Knowledge in Classroom

All government school teachers emphasised that the 'textbook is the only source of knowledge in the classroom'. Behavioristic approach is mostly followed in the classroom, where student is seen as the entity where change is expected in terms of memorisation of the content. Mostly, information is getting transmitted in the classroom. The teachers also shared the lack of resources and strength of students in the classroom as major obstacles in the effective transaction of content. Although many initiatives have been taken at the governmental level for the inclusion of experiences of students in the teaching-learning process like the '*Pragati*' project which was started with the vision of 'learning from experience', but it created little ripples among students. Students consider such workbook as 'extra' or 'supplementary' due to which they are not actively engaged in the teaching-learning process.

Private school teachers have a scope of including many strategies and approaches such as exploration, use of activities, technology, peer work, field trips, educational excursions, etc., for the active engagement of the child's mind in the process of transmitting knowledge. But many teachers also shared that it does not comes naturally. Various workshops have been organised in the school setting which equip them with such skills but it is a time consuming task as the schools increase their working hours for participating in the same. There is expectation from the teachers to exhibit innovation in various aspects of the school system like pedagogy, assessment strategies, classroom environment, etc., along with all routine work in the system.

Conclusion

From the conducted research, it is quite evident that teachers are not mere dispensers of knowledge, and a conducive work environment can act as a crucial catalyst for social transformation. Teachers have to be empowered for making judgments best suited to their teaching contexts and catering to the individual learning requirements of the children. The teachers do not perceive the act of teaching as monotonous and routine, but feel that it is full of challenges, dilemmas and decision making on an everyday basis. The challenges and dilemmas while teaching arise due to the multidimensional and pervasive concerns and responsibilities of teachers. The concerns shared by the interviewed teachers range from defining the objectives and aims of teaching duties, choices and freedom to exercise autonomy in the existing hierarchies and the effect of government policies and schemes on the teaching-learning environment of their classrooms. Some of the dilemmas were common to both the private and government school teachers like non-teaching work vs. teaching work, lack of choice and freedom to take decisions by the teachers, government rules/policies vs. ethical concerns. However they did differ in their dilemmas about their voice and agency in the school hierarchy. The private school teachers depended on higher authorities for even trivial decisions.

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Exploring Drawing Skills and Mental Images of Secondary Students on Human Digestive System through Hand Drawing

Animesh Kumar Mohapatra* and Anirban Roy**

Abstract

In consideration of the potential of drawing as an assessment and learning tool, we explored how the secondary students used it to communicate their understanding of the human digestive system—a chapter in Class X. Six schools in Bhubaneswar—three affiliated to the CBSE, two to the Odisha State Board and one to the West Bengal State Board, were randomly selected. 478 students of Class X of these schools were used for the study. They were asked to draw and label the human digestive system and respond to a close-ended questionnaire. The results revealed that the drawing skills of majority of students were poor and not monitored by the teacher for assessing the understanding level of students on the human digestive system. Several misconceptions are prevailing in the mind of the students, related to the position, shape, size and colour of various digestive organs.

Introduction

Biology is the study of life which requires careful observation and description. One excellent way to describe an object is to draw it. Drawing, as a skill, is one of the basic science process skills which has not received due emphasis and yet, is very

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fundamental for effective instruction. Teachers do a great deal of telling and demonstrating at the expense of engaging learners in activities which will foster learning and even make the process enjoyable. Muindi (2008) stated that learning in science and mathematics is mostly rote, which makes it a passive affair where the student is not engaged in the process. Students are taught according to how questions in the examinations are framed, leaving no room for creativity. This makes teaching-learning teacher-centric with very minimal learner participation. In such a state, the learners hardly learn and practise one of the important science process skill—that is, drawing.

Students who usually do not want to reveal their opinion are willing to share their ideas through drawings (Keogh and Naylor 1998, 1999). Drawing is just a way to express things that students cannot express verbally in the early stages of their schooling. In that way, the teacher can effectively monitor their development (Katz et al. 2014) Drawing techniques are especially valuable in encouraging children of younger ages who have difficulty in expressing themselves verbally (Chin and Teou 2010; Holliday et al. 2009). According to educational psychologists, participatory learning is the most effective method of learning science. By observing the specimens, asking questions, engaging in discussion and making annotated drawings of specimens during biology practical sessions, the students get involved in the learning process. This makes learning effective, apart from promoting the development of other science process skills.

It has been argued that having students construct drawings, in addition to writing, has the potential to be a critical link in students' science learning (Prain and Tytler 2012; Wilson and Bradbury 2016). Researchers have argued that drawing should be recognised along with reading, writing and speaking as a means—to enhance engagement, to represent science, to reason, as a learning strategy, and to communicate (Ainsworth et al. 2011). There is an emerging line of research into how the use of drawings with young students can be used to understand their thinking about science topics, as the act of drawing is a part of the learning construction process (Cox 2005; Van Meter et al. 2006). There have been studies exploring students' decisions when making science drawings as an assessment tool for primary and secondary students (Rybska et al. 2014).

There are numerous advantages in applying drawing methods during schooling. Firstly, many scientists believe that this is a powerful instrument that reflects the way of thinking, emotions, internal representation and perception of students. Secondly, the introduction of drawing method provides a more

pleasant working environment for students, and drawing makes it possible for students to communicate with each other. Thirdly, in the early stages of schooling, this is a convenient way to overcome the fear related to verbal difficulties. Fourthly, the process of drawing as a multidimensional factor expresses students' views, understanding and attitude. Drawing confirms objectivity in the projection of individual beliefs. Also, the method of drawing is more objective and easier for the purposes of quantitative analysis than the majority of others (Kubiatko et al. 2012).

Aim of the Study

If drawings are to be used for learning about students' conceptual knowledge, we must know how they represent their conceptions in drawings. As the drawing skills in Biology underlie the ability to communicate results in terms of observations and inferences, it is therefore necessary to examine the extent to which secondary school students use the drawing skills to communicate their scientific knowledge in Biology. The investigators were interested to explore how the secondary students represent their conceptions in drawing. Students' drawing will be seen as contextualised in pictorial conventions and students' conceptions will be seen as contextualised in conceptual framework with a focus on the human digestive system. The main question to be considered was the use of which teaching aid like LCD projector or charts or hand drawing by the teacher on the board improves the drawing skills of students. Secondly, is monitoring by the teacher essential for the assessment of students' understanding?

Material and Methods

The study was conducted in Bhubaneswar, Khurdha district of Odisha. Six sample schools were selected using simple random sampling technique. Out of these, three were CBSE-affiliated schools, two were Odisha State Board schools and one was West Bengal State Board affiliated school. All the CBSE-affiliated schools follow English as the language of instruction, the Odisha State Board schools follow Odiya as the medium of instruction while the West Bengal Board affiliated school employs Bengali as the medium of teaching and learning. The six selected sample schools had a population of 478 students in Class X, of which 226 were boys and 252 were girls.

For the study, a chapter—'Nutrition' (which includes the human digestive system and digestion) from Class X was selected. Since this study was conducted during August–September 2016, all the schools had already covered the chapter 'Nutrition' as it is the first chapter under the first unit in Biology—that is, 'Life Processes'.

The dates for the study were fixed in consultation with the principals of the respective schools. Two days before the study dates in different schools, the investigators interacted with students. The students were asked to go through the chapters which have been covered recently in Biology.

On the study day, each student received an A4-sized drawing paper and was told to use crayons to draw. At the same time, the students were given the following instructions—'we would like each of you to draw the human digestive system and label it properly. You will be given 35 minutes that is, one period, and we believe that it is enough for completing the drawing. This is not an examination but is part of a research study which involves many students of your age'.

In addition to the above, to collect data, the study employed a close-ended questionnaire. The questionnaire was used to investigate the problems that students encounter when making biological drawings. The questionnaire aimed at investigating the source from which students were asked to draw, whether the drawings are monitored by the teachers or not for the correct position, proportion, labelling and shading. The items were structured in a simple form requiring the respondents to tick either 'Yes' or 'No'.

Results

The drawings of the human digestive system of secondary students were examined as per scientific authenticity. These drawings were analysed under the following eight different categories.

A. Location, structure and colour correctness
B. Location correctness, structure incorrectness and colour correctness
C. Location correctness, structure correctness and colour incorrectness
D. Location correctness, structure incorrectness and colour incorrectness
E. Location incorrectness, structure correctness and colour correctness
F. Location incorrectness, structure incorrectness and colour correctness
G. Location incorrectness, structure correctness and colour incorrectness
H. Location incorrectness, structure incorrectness and colour incorrectness

The letters A to H for various categories are used for different data presentation. The investigators chose these features because they are all important for evaluating not only the drawing skills of students but also to explore the conceptual understanding of the human digestive system. The results were analysed by using the standard statistical method that is, percentage distribution.

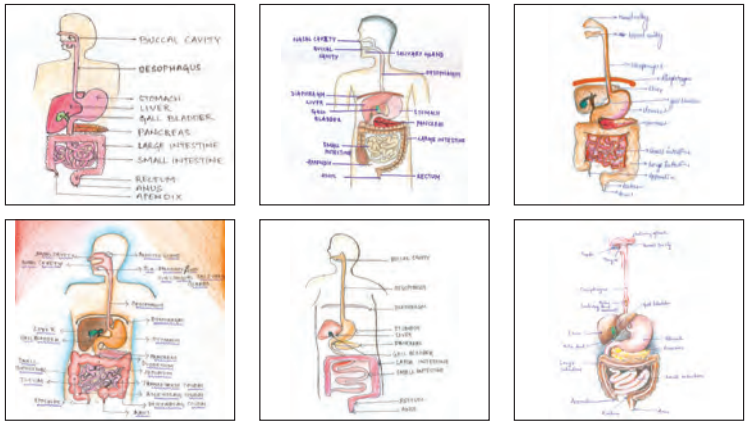

Plate 1. Students' drawing showing the correct structure, location and colour of the different parts of the human digestive system

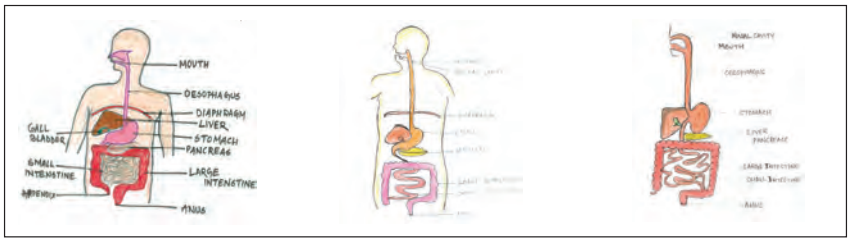

Plate 2. Students' drawing showing the correct location and colour but incorrect structure of the different parts of the human digestive system

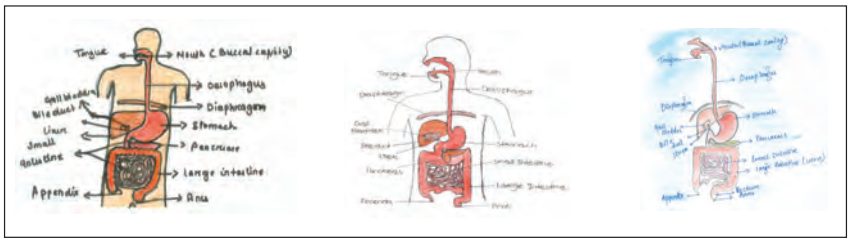

Plate 3. Students' drawing showing the correct location and structure but incorrect colour of the different parts of the human digestive system

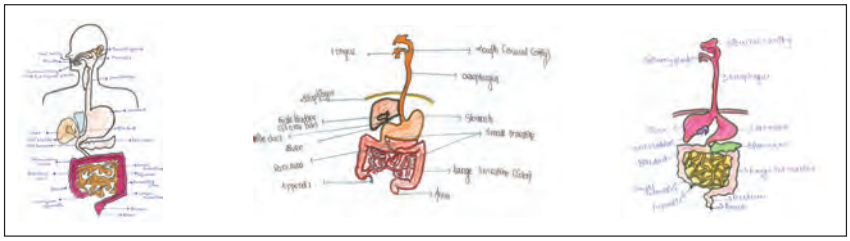

Plate 4. Students' drawing showing the correct location but incorrect structure and colour of the different parts of the human digestive system

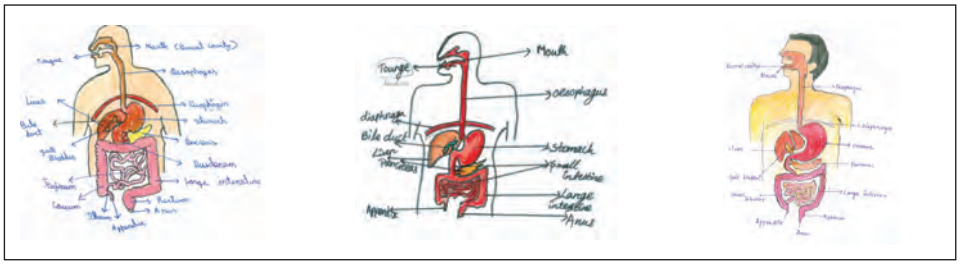

Plate 5. Students' drawing showing the incorrect location but correct structure and colour of the different parts of human digestive system

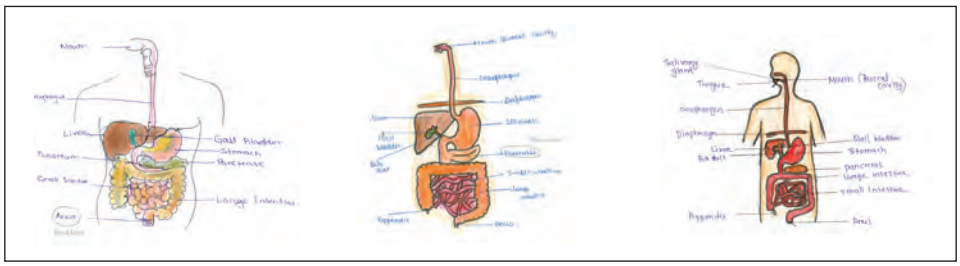

Plate 6: Students' drawing showing the incorrect location and structure and correct colour of the different parts of the human digestive system

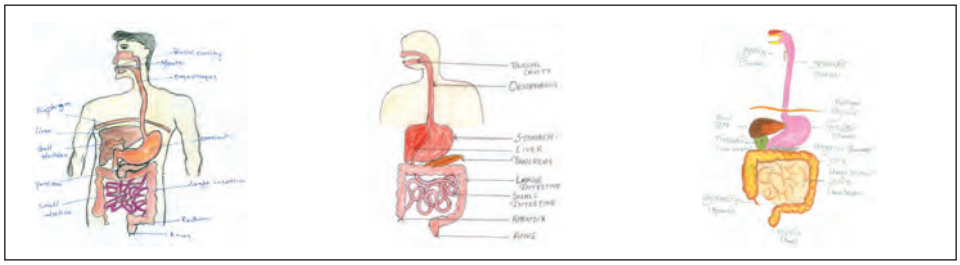

Plate 7. Students' drawing showing the incorrect location and colour but correct structure of the different parts of the human digestive system

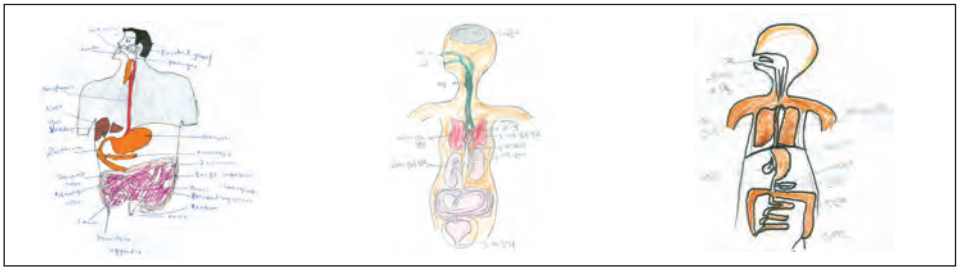

Plate 8: Students' drawing showing the incorrect structure, location and colour of the different parts of the human digestive system

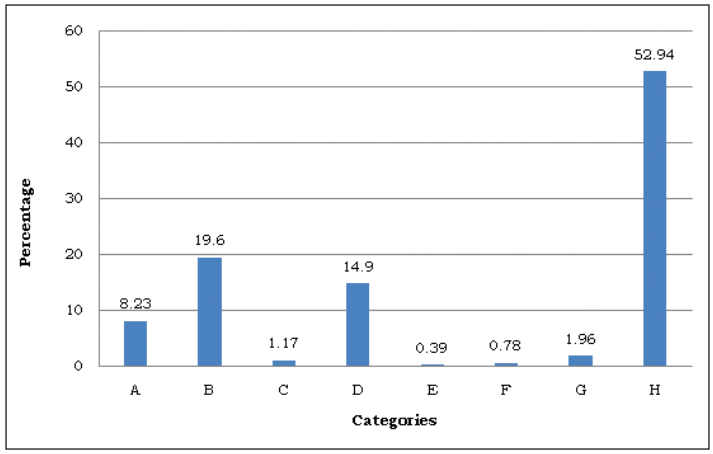

Figure 1. Results of the analysis of drawing on the human digestive system

The analysis of students' drawing showed that about half of the students (52.94 per cent) have a poor understanding of the correct position, shape, size and colour of various organs of the human digestive system (Figure 1, Plate 8). Only 8.23 per cent of students have a correct knowledge of the location, structure and colour of various organs (Plate 1). About one-fifth of the students have knowledge of position and colour of organs but not the shape and size (Plate 2) while 1.17 per cent of students are quite aware of the location and structure but not the colour of organs (Plate 3). Majority of students are not sure about the correct position of the various digestive organs (Figure 1, Plates 5 to 8).

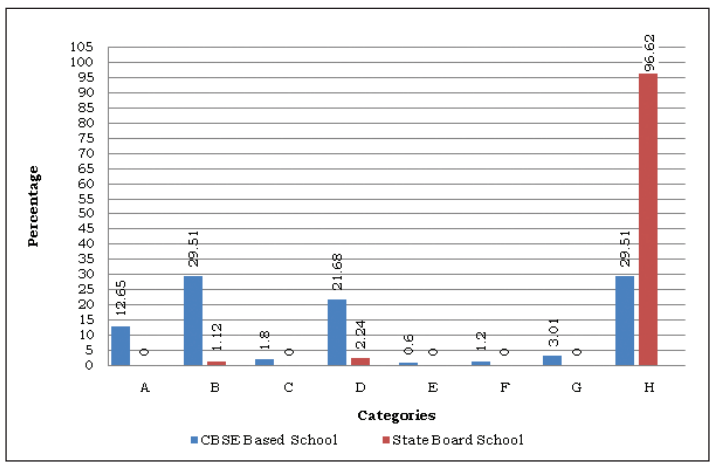

Figure 2. A comparison between the students of two different boards

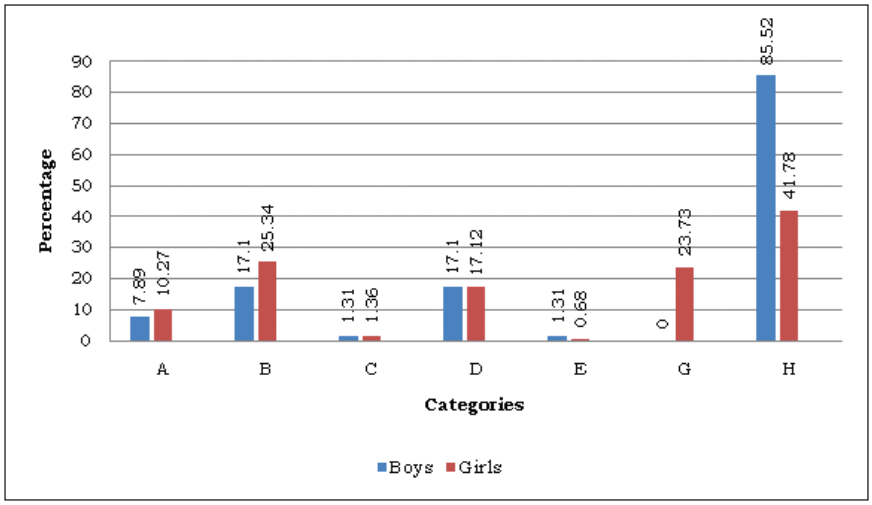

Figure 3. A comparison between boys and girls on drawing skills

The analysis of the students' drawings revealed that 96.62 per cent students of the State Board schools have poor information about the position, structure and colour of the digestive organs in comparison to only 29.51 per cent of students of the CBSE-affiliated schools (Figure 2). The results of the present study clearly show that girls have a much better idea than boys about the digestive system. In comparison to 41.78 per cent girls, 85.52 per cent of boys have a misconception about the position, structure and colour of the various digestive organs (Figure 3).

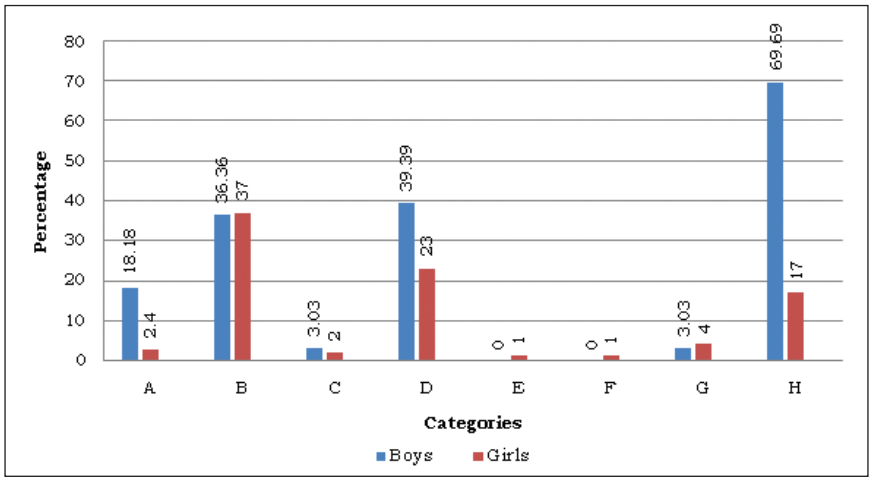

Figure 4. A comparison between boys and girls of CBSE-affiliated schools on drawing skills

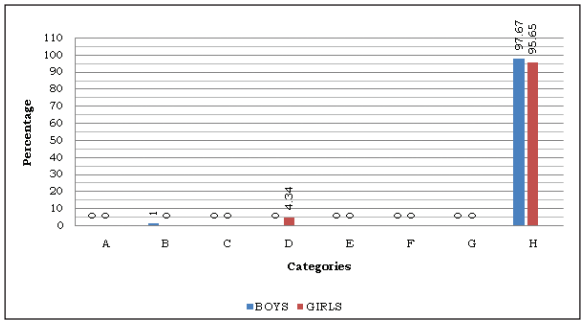

Figure 5. A comparison between boys and girls of State Board-affiliated schools on drawing skills schools on drawing skills

The investigators observed that boys (69.69 per cent) have poor information about the digestive system in comparison to girls (17 per cent) of CBSE-affiliated schools (Figure 4) while boys (97.67 per cent) and girls (95.65 per cent) of State Board-affiliated schools are equally poor in drawing skills and conceptual understanding of the digestive system (Figure 5).

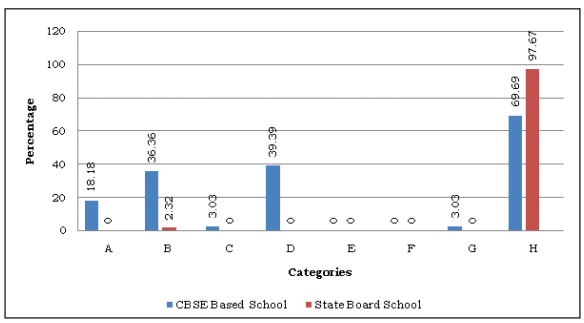

Figure 6. A comparison between boys of CBSE- and State Board-affiliated schools on drawing skills

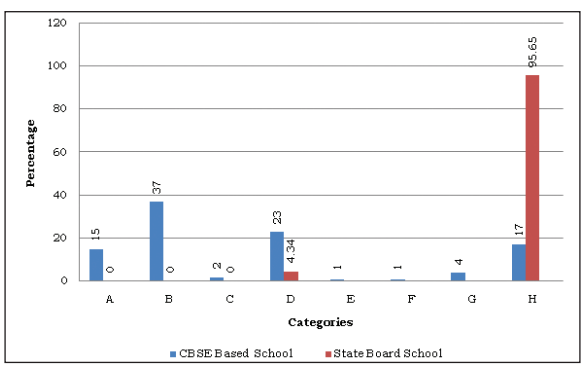

Figure 7. A comparison between girls of CBSE- and State Board-affiliated schools on drawing skills

The results of the present study (Figure 6) showed that boys of the State Board-affiliated schools (97.67 per cent) have more misconceptions about the digestive system than the boys of CBSE-affiliated schools (69.69 per cent). A similar trend has been observed in case of girl students (Figure 7).

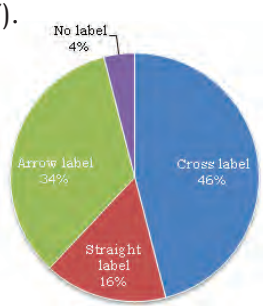

Figure 8. Different methods of labelling by students

While labelling the various components of the digestive system, it was observed that 46 per cent of students cross label lines, 34 per cent arrow labelling lines, 16 per cent straight lines and 4 per cent did not label their diagrams (Figure 8).

The analysis of responses to the close-ended questionnaire revealed the following problems faced by students when making biological drawings.

- ***LCD projector, charts and drawing on board***
  The results in Figure 9 indicate that 43 per cent of the students agreed that an LCD projector is used to show the biological figures and that they draw by observing. 38 per cent of the students mentioned that their teachers use commercial charts (that is, charts bought or purchased from outside) in the class and about one-fifth of students (19 per cent) mentioned that their teacher draws diagrams on the board.
- ***Monitoring of drawing***
  A large number of students (87 per cent) clearly mentioned that there was no monitoring by teachers while they were drawing (Figure 9). It indicates that teachers only show the figures and ask students to draw without any guidance.
- ***Instruction by teacher***
  The students' response (94 per cent) demonstrates that there were no instructions given by teachers such as labelling, shading and shape of organs. This is clearly reflected in students' drawings (Plates 2–8).

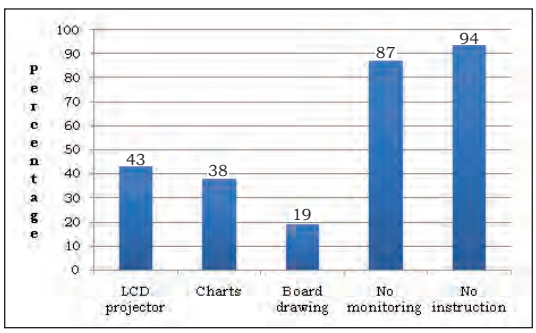

Figure 9. Responses of students to the close-ended questionnaire

Discussion

Biology is the most visual of all sciences, and has a long history of the use of drawing for defining and linking concepts in the living system. Drawing improves conceptual understanding. It helps students to have a better perception of the essential content that is considered (Göçmençelebi and Tappan 2010). Investigators of the present study are of the view that if a scientific text is supported by a drawing of the text, the students exhibit greater knowledge. Studies have shown that students who draw while considering a text, acquired greater knowledge than those who considered the same text without drawing (Schmeck et al. 2014).

The analysis of the drawings clearly demonstrates that about half of the respondents (52.94 per cent) have no correct knowledge about the position, structure and colour of various digestive organs. This may be due to several factors such as poor quality of charts shown to students, not showing scientifically correct figures through LCD projector or the absence of clear diagrams drawn on the board by the teachers. It is also evident from the responses of students (87 per cent) that there was no monitoring and no instructions were given by the teachers. Teachers' demonstration is very important in the sense that students will learn how to draw, how to label and make a proportional drawing. A large number of students could not draw straight labelling (Figure 9). This made the drawings untidy. Crossing the labelling lines and ones which do not touch the structures being labelled confuse the labels. Arrows normally show directions of flow; hence, they are not used as labelling lines. The labelling of biological drawings is an important component which reflects the understanding of students about the concepts. The results of the present study agreed with the findings of Wekesa (2013) and Dimitrijevic (2016).

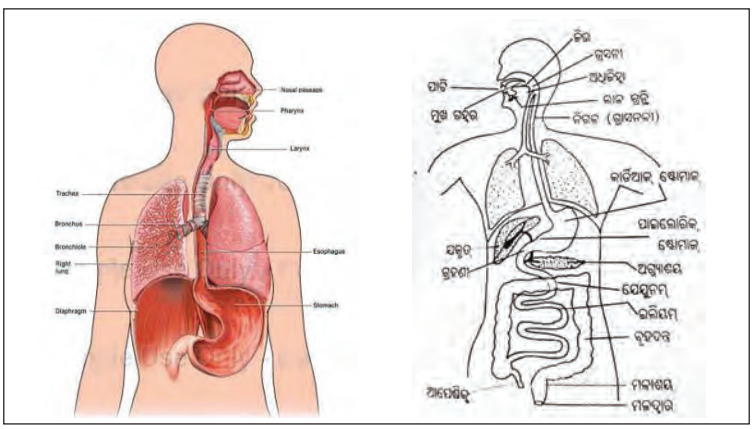

Figure 10. Chart (a) used in class and diagram (b) given in textbook

About one-fifth of the students mentioned that teachers ask them to draw from books. Though this strategy is very effective, without proper guidance and monitoring, it can be misused. The main objective of learning drawing skills may not be achieved. Students with basic understanding of a visual concept may reproduce a drawing in the same style as they have observed in the textbooks. Figure 10 shows the chart (a) and diagram (b) taken from the textbook of the State Board schools. This will surely develop misconceptions about various organs of digestive system. Teachers need to verify that the figures given in the textbooks are scientifically correct or not. To avoid this, teachers should closely monitor the students' drawing and give appropriate instructions.

The use of charts by teachers in the teaching of biology was indicated by 38 per cent of the respondents. Charts can be drawn by teachers or can be obtained from the market. Teachers rarely draw charts for Biology teaching at the secondary level (Figure 9). This may be due to the lack of information on the importance of charts in teaching-learning. It could also be attributed to the use of ICT (Information and Communication Technology) in many schools. While using commercial charts, care should be taken to ensure that the charts purchased are scientifically correct.

Several researchers describe drawing as a constructive learning process in which students' integrate information from the available representations in order to portray their understanding (Chang 2012; Cox 2005; Danish and Enyedy 2007; Van Meter and Garner 2005). While studying the students drawing the human digestive system, a number of misconceptions prevailing in the mind of students were observed. Many students have drawn the lungs in the digestive system (Plate 8). Maximum students are not aware of the position of diaphragm as they have shown it in the upper part of the chest or near the shoulder (Plates 2, 3, 5); some have shown that liver and pancreas arise from the oesophagus (Plate 4), and show the opening of the small intestine into the terminal part of the large intestine (Plates 6, 8). Some of the students are of the view that kidneys open into the intestines and many students are not aware of the shape of various digestive organs. The students' drawing reveals that the students of the State Board schools have a large number of misconceptions than the students of the CBSE-affiliated schools. Several researchers (Bell 2014; Chin and Teou 2010; Dempster and Stears 2014; Göçmençelebi and Tappan 2010; Malchiodi 2012) have opined that children's drawings reflect their knowledge and a very successful method in monitoring students' understanding. The misconception prevailing among students on the human digestive system demonstrates that neither the teachers have taken interest in monitoring the drawings

nor have they evaluated them to identify the alternative ideas that students have in the chapter.

Conclusion

Our findings strongly support the use of drawing as an epistemic practice not only in biology but also in other branches of science, and as an epistemological activity for the synthesis of understanding in addition to other forms of communication and assessment. Drawing as an additional form of assessment is needed to gauge students' understanding of the concepts of science alongside a more traditional mode, such as writing. With the goals for drawing-to-learn in mind, the next step is to consider how to scaffold drawing skills to meet those goals that is, how can instructors provide a sequence of support that helps the students to eventually achieve mastery of the skill on their own. It is beyond the scope of this study to propose teaching practices to support all of the diverse goals for drawing-to-learn. We recognise the need for drawing as a scientific practice to be taught in order for students to maximise their understanding of science.

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English Language Anxiety and Social Competence among Secondary School Students

Manoj Praveen G.* and Liji M.**

Abstract

Due to English language anxiety, students experience tension, nervousness, or sometimes become shy in the classroom. At times, they become frustrated too. The debilitating levels of anxiety in learning and using the English language can cause students to postpone language study indefinitely and keep themselves away from teachers, peer group, etc. This study reports a significant difference in the English language anxiety in subsamples based on gender, medium of instruction, type of school management and type of syllabus. The study was conducted on a sample of 800 students of Class IX drawn from 16 schools of Kozhikode and Malappuram districts of Kerala. The tools used for the study were the English Language Anxiety Scale and Social Competence Scale. The results were derived using statistical techniques such as percentiles, test of significance of mean difference, Pearson's Product Moment Correlation and ANOVA. This study also brings out the relationship between English language anxiety and social competence in the total sample and subsamples based on gender, medium of instruction, type of school management and type of syllabus. The major findings affirm that students of Malayalam (regional language) medium have more English language anxiety than the students of English medium. Among English medium students, those of state schools have more English language anxiety than the students of central government schools. The study further revealed significant negative relationship between English language anxiety and social competence for the total sample. The study

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implies that if the medium of instruction is English, it helps in reducing English language anxiety,and as there is a relationship between social competence and English language anxiety, we may strive to improve the social environment of the classroom with constructivist patterns of learning.

Introduction

Language is a great tool which has made human civilisation possible. It is a uniquely human trait. It helps to embody our thought. According to Kennard (as cited in J.O. Gauntlett 1966), the measure of a man's mastery of a language is his ability to think in it. It is only when we think in a language that we can be truly using it. Though English is a compulsory subject in our schools, many students express their inability and sometimes even acknowledge their failure in learning it. One major reason for this is English language anxiety experienced by them. Due to English language anxiety, students experience tension, nervousness, or sometimes become shy in classroom. They may also become frustrated too. In India, as English is considered the associate official language, we can consider this problem as second language anxiety.

Language Anxiety and Social Competence

Second language anxiety is a complex and multidimensional phenomenon. MacIntyre and Gardner (1994) define it as 'a subject feeling of tension apprehension, nervousness, and worry associated with the arousal of the automatic nervous system' (p. 287). Pappamihiel (2002) describes English language anxiety as 'social anxiety' (p. 330), dependent upon interactions with others. The debilitating levels of anxiety in learning and using English language can cause students to postpone language study indefinitely and keep themselves away from teachers, peer group, etc. This study reports the relationship between English language anxiety and social competence in the total sample and subsamples based on gender, medium of instruction, type of school management and type of syllabus. Goleman (1995) asserted that social competence determines how we handle relationships.

The school is a place to build relationships and to develop good communication skills as well as interest in education. But today, the education system is neglecting the affective domain and persuading the students to run after content knowledge and scores. The increased use of English in studies for comprehending and expressing ideas makes many students feel feeble before others. The stressful classroom environment increases the anxiety and makes these students unable to fully exhibit their potential due to the stressful situation they are in. Thus, the relation between

English language anxiety and social competence was explored among the secondary school students of Kerala.

Social competence refers to the skills necessary to be accepted and fulfilled socially. In the present study, social competence was operationally defined based on the emotional competence framework suggested by Goleman (1995). Thus, it is the sum total of the scores on the eleven factors viz., understanding others, developing others, service-orientation, leveraging diversity, organisational awareness, influence, communication, conflict management, leadership, change catalyst and coordination.

Related Studies

Worde (2003) identified non comprehension, speaking activities, pedagogical and instructional practices, error correction as those factors which may contribute to language anxiety. At the same time, a sense of community, pedagogical practices, classroom environment and teacher are considered as anxiety reducing factors. Chakrabarti (2012) found that test anxiety is the predominating anxiety component in the students, as compared to communication apprehension and fear of negative evaluation. Tsiplakides and Keramida (2009) found that students were experiencing English language speaking anxiety as a result of the fear of negative evaluation from their peers, and perception of low ability in relation to their peers. Chu (2008) revealed that shyness, foreign language anxiety and willingness to communicate in both Chinese and English were correlated. Moreover, shyness and foreign language anxiety had a relationship with each other. Hemamalini (2007) found that the process of learning English language could be improved by reducing the extent of language anxiety among the students by changing the classroom atmosphere. Liu (2006) found that the students felt the most anxious when they responded to the teacher or were singled out to speak English in class, and felt least anxious during pair work.

Methodology

The study was conducted on a sample of 800 students of Class IX drawn from 16 schools of Kozhikode and Malappuram districts in Kerala. The sample was selected using stratified random method, giving due weightage to gender, type of school management, medium of instruction and type of syllabus. The objectives set forth for the study are the following—

1. To find out whether there is any significant difference in English language anxiety in subsamples based on—
   - Gender
   - Medium of instruction
   - Type of school management
   - Type of syllabus
2. To find whether there is any significant relationship between

English language anxiety and social competence in the total sample and subsamples based on—

- Gender
- Medium of instruction
- Type of school management
- Type of syllabus

For the present study, the investigator used the following tools—

1. English Language Anxiety Scale (Lijy and Praveen 2012)
2. Social Competence Scale (Poduthas and Praveen 2003)

English Language Anxiety Scale is a Likert type scale with five responses, viz., 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. The investigator identified 'communication apprehension', 'test anxiety', 'fear of negative evaluation' and 'anxiety of English classes' as the four core components of the variable, English language anxiety. The reliability of the test was measured using split-half method and was found to be 0.90. The validity of the English Language Anxiety Scale was ensured using face validity and concurrent validity. Concurrent validity of the test was determined by comparing it with Foreign Language Class Anxiety Scale developed by Horwitz et al. (1986), and was found as 0.76. The reliability of the Social Competence Scale was found out by test-retest method as 0.81. The validity is ensured through face validity and concurrent validity. The coefficient of correlation between the present scale and the external tool was found to be 0.73.

Results

To find out whether there is any significant difference in English language anxiety in subsamples based on gender, a 't' test was performed (Table 1). Since the 't' value obtained (0.88) is lower than the tabled value at 0.05 level (that is 1.96), there was no significant difference in the mean scores of English Language Anxiety between boys and girls. It can be concluded that boys and girls have almost identical English language anxiety.

Table 1
Test of Significance of Mean Difference of English Language Anxiety between Boys and Girls

Total English Language Anxiety	Gender	Size the of Sample (N)	Mean	Standard Deviation	t-value
	Boys	456	105.35	22.79	0.88
	Girls	414	103.97	23.72	

Table 2
Test of Significance of Mean Difference in English Language Anxiety between Malayalam and English Medium students

Total Language Anxiety	Medium of Instruction	Size of the Sample (N)	Mean	Standard Deviation	t-value
	English	541	98.80	22.44	10.15
	Malayalam	329	114.40	21.19	

To compare the English language anxiety between students who study in Malayalam and English medium, a 't' test was done for the subsample medium of instruction. The results are given in Table 2. The obtained 't' value (10.15) is higher than the tabled value at 0.01 level (2.58). Hence, it can be concluded that students of Malayalam medium have greater English language anxiety than the students of English medium.

To compare the English language anxiety between students who study in the English medium schools but with different syllabi, viz., CBSE and SCERT, a 't' test was done and the results are given in Table 3. Since the 't' value obtained (3.20) is higher than the tabled value at 0.01 level (2.58), there exists significant difference in the mean scores of CBSE and SCERT syllabi when the medium of instruction is English in both the cases. Hence, it can be concluded that the students studying the syllabus of State Board experience more anxiety (even when the medium of instruction is English) than the CBSE school students.

The collected data was analysed to find out whether there is any significant relationship between English language anxiety and social competence. This was done using Pearson's Product Moment Coefficient of Correlation. The coefficient of correlation between the variables English language anxiety and social competence for the total sample was found to be -0.22, which is significant at the 0.01 level. This indicates that the two variables are significantly related for the total sample.

The details regarding coefficient of correlation between English language anxiety and social competence for the subsamples gender, medium

Table 3
Test of Significance of Mean Difference in English Language Anxiety between CBSE and SCERT (English Medium)

Total English Language Anxiety	Type of Syllabus	Size of the Sample(N)	Mean	Standard Deviation	t-value
	CBSE	162	94.12	23.15	3.20
	SCERT	379	100.80	21.85	

of instruction, type of school management and type of syllabus are given in Table 4.

English Language Anxiety and Social Competence with regard to the subsample gender.

Table 4
Details Regarding the Coefficient of Correlation between English Language Anxiety and Social Competence for the Subsamples

Sample	Category	Size of the Sample (N)	r	Significance of the Difference between Two Correlation Coefficients P value
Gender	Boys	456	-0.16	.02
	Girls	414	-0.29	
Medium of Instruction	Malayalam	541	-0.23	.61
	English	329	-0.27	
Type of Management	State govt.	247	-0.32	.64
	Aided	275	-0.37	
	Central govt.	48	-0.03	1.75
	Unaided	300	-0.30	
Type of Syllabus	SCERT	708	-0.32	.25
	CBSE	162	-0.01	

The variables—English language anxiety and social competence are found negatively related with each other. While we compare the different pairs of groups to find out of if the correlation coefficient is significantly different from the other, we find that though the groups differ in this relation, there is no significant difference in the relationship between

Discussion of Results

The study reveals that boys and girls have almost the same level of English language anxiety. The confidence to handle English does not seem to be affected by gender differences. This also suggests that any interventions for improving confidence in English should be implemented without any gender bias.

As the students of Malayalam medium have greater English language anxiety than the students of English medium, it is clear that a constant familiarity with the language instils confidence in handling the language. This suggests that even when the medium of instruction is in the vernacular language, exposure to English should be ensured through additional enrichment lessons including role-plays, supplementary reading, and other communication drills. However, another result suggests that students studying the syllabus of State Board experience more anxiety (even when the medium of instruction is English) than the CBSE school students. This makes us believe that the confidence to handle English has factors other than just exposure to English. Probably the socio-economic status, the hidden curriculum of the school and several other decisive factors may be contributing to the lower English language anxiety of the CBSE school students.

The study revealed a significant but negative relationship between English language anxiety and social competence. This suggests the need to provide opportunities for students to socialise in meetings and other clubs under the auspices of the school.

Conclusion

The findings reveal that boys and girls have almost the same English language anxiety. Therefore, any programme to reduce anxiety should address both the genders. The study also revealed that the students, with English as a medium of instruction have lesser anxiety to handle English than their counterparts who learn in their mother tongue. This finding suggests the inclusion of English in a more meaningful way in the academic programme. Among the English medium students, those of state schools have more English language anxiety than the students of central government schools. This could be because the hidden curriculum in CBSE schools promotes the usage of English in the school settings. The study further revealed significant negative relationship between English language anxiety and social competence for the total sample. As there is a relationship between social competence and English language anxiety, we may strive to improve the social environment of the classroom with constructivist patterns of learning.

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Teacher-taught Relationship and Academic Achievement of Elementary Schools in Himachal Pradesh

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Abstract

An effective teacher-taught relationship is the keystone that allows the other aspect of academics to work well. The teacher-taught relationship serves as an important support for students for achieving better academic performance. This study is designed to assess the teacher-taught relationship and academic achievement of elementary school students. The population of study consisted of three districts of Himachal Pradesh, and a sample of 223 students was drawn from the population using multistage random sampling. A self-developed questionnaire on the teacher-taught relationship was used for collecting data. The questionnaire had 30 items related to various dimensions of the teacher-taught relationship. The Pearson Product Moment Correlation and t-test were used for the analysis of data. Research finding shows that there is a significant positive relationship between the teacher-taught relationship and academic achievement. Results also show that there is a significant difference in the teacher-taught relationship on the basis of gender and there exists no significant difference in the teacher-taught relationship in relation to their locale.

Introduction

The teaching-learning process revolves around three main components—the teacher, student and the teaching-learning environment. It is in the school that a child develops an

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important relationship with the teacher. The relationship with the teacher is crucial as it determines the academic outcomes of the students (Jones & Jones 1981; Murdock 1999; Ryan, Stiller & Lynch 1994).

Student-teacher relationships have been described as relationships that are 'mutually respectful and supportive' (Pendergast & Bahr 2006). Also, it involves an open communication as well as emotional and academic support that exist between students and teachers. It is a form of relationship that is characterized by mutual acceptance, understanding, warmth, closeness, trust, respect, care and cooperation (Pianta 2004; Leitao & Waugh 2007). Hence, the teacher-taught relationship is more than just an interaction between the teacher and students; it also involves humanistic values to learn about life.

Academic achievement has been found to be related with the teacher-taught relationship. Teachers taking out time for the students, expressing positive feelings towards the students, being open and flexible to their needs, affects the performance of the students. Various researches have shown the power of the teacher-taught relationship to determine the success of the students. Jones and Jones (1981) found that the relationship between the teacher and the taught affects the academic achievement and also the students' behaviour. The Theory of Self Determination emphasises that the need to relate with others is affected by the teachers' involvement. Fay and Funk (1995) found that students who feel they do not share positive relationships with their teachers are more disruptive, less likely to be engaged academically, and have higher tendency to dropout. Other researchers have found significant behavioural and academic improvement (Eccles, Wigfield & Schiefele 1993; Baker, Terry, Bridger & Winsor 1997) and motivation to learn (Steinberg, Brown & Dornbusch 1996) when students enjoy caring and supportive relationships with teachers. Studies have shown that a positive, warm and supportive relationship with the teacher helps the child to develop the adaptability for the social and the academic environment (Birch & Ladd 1998; Hamre & Pianta 2001; Pianta 1999). Pianta and Steinberg (1992) found that the teacher-taught relationship is cohesively related to the academics as well as adjustment of the students. Also, Skinner and Belmont (1993) found that the students' classroom experiences are highly affected by the teachers' warmth and affection.

Significance of Study

The relationships that teachers develop with their students have an important role in a student's academic growth. Hallinan (2008) writes, 'Learning is a process that involves cognitive and social psychological dimensions, and both processes should be considered if academic achievement is to be maximised'. Hamre and Pianta (2001) report that positive student-

teacher relationships are a valuable resource for students. They suggest that having a positive relationship with a teacher allows students to be able to work on their own because they know they can count on their teacher. If problems arise, the teacher will recognise and respond to the problem. Teachers also exist as a bridge between the students and the school. They play a major role in helping the students learn positive, caring attitudes towards their school, and including their sense of caring towards their school community (Ellerbrock & Kiefer 2010).

Teachers are bestowed with the power to provide varying experiences to the students—positive or negative, which ultimately affect the academic performance of the students. The important part that a teacher plays in the life of the student formed the basis for conducting the study on the teacher-taught relationship. Hence, the present study was conducted to assess the relationship between the teacher and the taught. It also finds how the teacher-taught relationship of elementary school students in Himachal Pradesh is affected by gender and locale.

Objectives of the Study

- To assess the teacher-taught relationship
- To study the relationship between the teacher-taught relationship and academic achievement
- To study the differences between the teacher-taught relationship in relation to gender
- To study the difference among the various dimensions of the teacher-taught relationship in relation to gender
- To study the differences between the teacher-taught relationship in relation to locale

Hypotheses

$\mathbf{H_{01}}$ There exists no significant relationship between the teacher-taught relationship and academic achievement.

$\mathbf{H_{A1}}$ There exists a significant relationship between the teacher-taught relationship and academic achievement.

$\mathbf{H_{02}}$ There exists no significant difference between the male and female students in relation to the teacher-taught relationship.

$\mathbf{H_{A2}}$ There exists a significant difference between the male and female students in relation to the teacher-taught relationship.

$\mathbf{H_{03}}$ There exists no significant difference between the male and female students among the various dimensions of the teacher-taught relationship.

$\mathbf{H_{A3}}$ There exists a significant difference between the male and female students among the various dimensions of the teacher-taught relationship.

$\mathbf{H_{04}}$ There exists no significant difference between the urban and

rural students in relation to the teacher-taught relationship.

$\mathbf{H_{A4}}$ There exists a significant difference between the urban and rural students in relation to the teacher-taught relationship.

Methodology

The descriptive survey method was used to conduct the present study. In the present study, stratified random sampling technique was used to collect the data. Out of twelve districts of Himachal Pradesh, the investigator selected three districts by lottery method. Again by using the same method, five government elementary schools were selected each from these three districts. In total, fifteen upper primary schools were selected from the three districts.

The sample of students constituted all the students studying in Class VIII in the fifteen elementary schools. A sample of 223 students from the selected elementary schools situated in Himachal Pradesh from district Hamirpur, Kangra and Chamba was selected by employing multistage random sampling.

A self-developed questionnaire on the teacher-taught relationship was used for collecting data for the study. The questionnaire contained 30 items related to various dimensions of the teacher-taught relationship. These dimensions include classroom interactions, motivation and guidance, freedom of expression, intimacy of trust and respect for individual dignity. The academic achievement of the students was taken as the scores obtained by the students in the final examinations in Class VIII at the end of the year.

For the administration of the research instrument, the researchers personally visited all the sampled schools and briefed the students about the purpose and importance of study. To get authentic and high response rate, each item was read out for the students and they were asked to tick in one response option column out of three, of their own choice in the questionnaire. During the whole process, the students were assured that their views will not be disclosed to anyone. The collected data was tabulated and analysed by using SPSS (version 21) according to the demand of the objectives using Pearson's Product Moment Correlation (r) and t-test methods. The 0.05 level of significance was selected for making inferences about the population.

Delimitation of the Study

The study was delimited to the views of students in the elementary schools situated in Himachal Pradesh.

Results and Discussion

The teaching-learning process involves teachers, students and interaction between them. It is very important for both to have a healthy relationship in order to carry out the teaching-learning process smoothly. The child's relationship with the teacher greatly determines the performance of the student. Teachers

can influence the destiny of the students for more than two decades. From the tender age of 5 years, a child remains with the teacher, who is one of the most critical factors in shaping the destiny of the child. Establishing a positive teacher-student relationship helps to yield a beautiful environment in the classroom.

Classroom Interaction

Positive classroom interaction is the key factor that promotes a healthy teacher-taught relationship. Fifty-five per cent students confirmed equal participation of the teacher and taught, with 92 per cent students admitting that the teacher gave proper attention to all students and also made use of entertainment (56 per cent) to break the monotony of the class. 77 per cent students said that they were given equal opportunities to express their viewpoint and 22 per cent expressed the teacher dominated during the classroom interaction. 73 per cent students were of the view that the teacher made them aware of various activities and also helped them to organise the various co-curricular activities (77 per cent).

Motivation and Guidance

90 per cent students admitted that their teachers encouraged them to improve their bad habits and guide them (70 per cent) to elicit positive behaviour. 87 per cent students confirmed that the teachers helped them in solving their problems and appreciated them for their achievement (81 per cent). 19 per cent students felt their teachers mostly pointed out their mistakes and 67 per cent students considered their teachers as their role models.

Freedom of Expression

55 per cent students were of the view that they felt comfortable and 58 per cent could talk openly with their teachers. Only 16 per cent students felt that they were afraid to express themselves before their teachers. 56 per cent students admitted that they could share and talk openly with the teacher even if they had not understood what had already been explained.

Intimacy of Trust

85 per cent students confessed that their teacher trusted them, 70 per cent stated that the teacher stood by them in the time of need, 36 per cent felt that their teachers understood them when they were facing a problem while 33 per cent students admitted that teachers do not pay attention to them. Fifty-nine per cent students also shared that their teachers gave them extra time, when needed.

Respect for Individual Dignity

Eighty per cent students believed that their teachers treated them with care and respect, 45 per cent stated that they never hurt their self-esteem whereas 9 per cent shared their views against this, stating that teachers treated them with disrespect

(23 per cent) and only paid attention to the intelligent students (16 per cent). Bandura & Martinez-Pons 1992). Motivational theorists suggest

Table 1
Relationship between Teacher-taught Relationship and Academic Achievement

Teacher-taught Relationship and Academic Achievement	N	r	Remarks
Total	223	.449*	Significant

**Significant at .05 level of significance*

The coefficient of correlation (r = .449) as shown in Table 1 conveys that there is a significant positive relationship between the teacher-taught relationship and academic achievement. It can be concluded that a healthy teacher-taught relationship has more positive impact on academic achievement. This seems to be related with the study of Hughes, Cavell and Jackson (1999) in which students who perceive their relationship with their teacher as positive, warm and close are motivated to be more engaged in school and to improve their academic achievement. Motivation may play a key role in the relationship between the teacher-student relationships and academic outcomes (Bandura 1997; Fan & Willams 2010; Pajares & Graham 1996; Ryan, Stiller & Lynch 1994; Wentzel 2003; Zimmerman, that students' perception of their relationship with their teacher is essential in motivating students to perform well (Bandura 1997; Fan & Willams 2010; Pajares & Graham 1996; Ryan, Stiller & Lynch 1994; Wentzel 2003; Zimmerman, Bandura & Martinez-Pons 1992). Students' motivation to learn is impacted positively by having a caring and supportive relationship with the teacher (Wentzel 1998). Hence, the first hypothesis (H_{01}) that there exists no significant relationship between teacher-taught relationship and academic achievement is rejected.

The value of t-ratio calculated in Table 2 for teacher-taught relationship was found to be 2.134 which is higher than the table value (1.96) at .05 level of significance showing significant difference in the

Table 2
Significance of Difference in Teacher-taught Relationship on the Basis of Gender

Gender	N	Mean	SD	SEM	SED	t-value	Result
Male	114	74.62	8.13	.762	1.08	2.134*	Significant
Female	109	72.32	7.97	.763			

**Significant at .05 level of significance*

teacher-taught relationship on the basis of gender. The mean for the male student (74.62) is higher than the mean for female students (72.30) on the teacher-taught relationship, indicating male students have better teacher-taught relation as compared to female students. Hence, the second hypothesis (H_{02}) that there exists no significance between the male and female students in relation to the teacher-taught relationship is rejected.

of significance. The results, therefore, indicate that on the basis of gender, there is a significant difference in the teacher-taught relationship on the dimensions of classroom interaction and freedom of expression. The t-value on the dimension of teacher-taught relationship on motivation and guidance (1.65), intimacy of trust (.388) and respect for individual dignity (1.25) were found to be insignificant that is, the male and female students do not differ on

Table 3
Significance of Difference in Teacher-taught Relationship on the Basis of Gender

	Locale	N	Mean	SD	SEM	SED	t-value	Result
Classroom interaction	Male	114	18.22	2.49	.233	.348	2.53*	Significant
	Female	109	17.34	2.71	.259			
Motivation and Guidance	Male	114	18.46	2.30	.215	.304	1.65	Insignificant
	Female	109	17.95	2.24	.215			
Freedom of Expression	Male	114	9.76	1.43	.134	.205	2.25*	Significant
	Female	109	9.30	1.62	.156			
Intimacy of Trust	Male	114	12.03	1.83	.171	.257	.388	Insignificant
	Female	109	11.93	2.01	.192			
Respect for Individual Dignity	Male	114	15.97	3.09	.290	.382	1.27	Insignificant
	Female	109	15.49	2.58	.247			

**Significant at .05 level of significance*

The value of t-ratio calculated in Table 3 was found to be 2.53 for classroom interaction and 2.25 for freedom of expression, which is higher than the table value 1.96. Hence, it is significant at 0.05 level

the above-mentioned dimensions of teacher-taught relationship.

Classroom interaction and freedom of expression in classroom are found to play more important role in a healthy teacher-taught

relationship, having a direct impact on the academic performance of the students. When teachers form positive bonds with students, classrooms become supportive spaces in which students can engage, in academically and socially productive ways. Positive teacher-student relationships are classified as those having closeness, warmth, and positivity. Students who have positive relationships with their teachers use them as a secure base from which they can explore the classroom and school setting both academically and socially, to take on academic challenges and work on social-emotional development (Hamre & Pianta 2001).

The results of the present study are in contrast to the results of the previous studies where a possible reason for the association between academic improvement and positive teacher-student relationships is students' motivation and desire to learn (Wentzel 1998). Based on the above results, the third hypothesis (H_{A3}) that there exists no significant difference between the male and female students among the various dimensions of the teacher-taught relationship is partially accepted.

Table 4 shows that the calculated value was .063, which is smaller than the table value (1.96) at .05 level of significance, therefore, it is insignificant at .05 level. Hence, the fourth hypothesis (H_{04}) that there exists no significant difference in the teacher-taught relationship in relation to their locale is accepted.

Table 4
Significance of Difference in Teacher-taught Relationship on the Basis of Locale

Gender	N	Mean	SD	SEM	SED	t-value	Result
Rural	131	73.53	7.57	.661	1.11	.063	Insignificant
Urban	92	73.46	8.88	.925			

**Significant at .05 level*

Conclusion

The results of the present research show the following.

- There is a significant positive correlation between the teacher-taught relationship and academic achievement.
- There exists a significant difference in the teacher-taught relationship in relation to gender.
- There exists significant difference in the various dimensions of the teacher-taught relationship (classroom interaction and freedom of expression) in relation to gender, but no significant differences were found on motivation and guidance, intimacy of trust and respect for individual dignity.
- There exists no significant difference in the teacher-taught relationship in relation to locale.

Recommendations

Positive relationships between the student and teacher serve as a resource to the students, as it helps maintain their engagement in academic pursuits (Hamre & Pianta 2006). This demands responsibility on the part of the school authority and teachers to improve the intimacy of trust, respect for the individual and motivation and guidance. To increase the intimacy of trust among girls, the teacher should trust them and stand by them and also understand them when they are facing a problem. Teachers should also pay attention to their students and give them extra time when needed. The respect for the individual needs to be improved. Teachers should neither hurt students' self-esteem nor treat them with disrespect.

Teachers have to implement a few simple strategies like teaching with enthusiasm and passion, using student interest for implementing teaching strategies, show an interest in their lives outside of school, treat them with respect, incorporate humour into lessons, have a positive attitude and go an extra mile for their students to develop a healthy classroom environment and build a positive student-teacher relationship which directly affects the students' performance.

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Competency of Teacher Educators and Student Teachers towards E-learning Tools

Deepty Gupta* and Gaurav Singh**

Abstract

Information and Communication Technology (ICT) can bring qualitative and quantitative improvement in higher education as well as in the school education system of our country. Increasing demand of E-learning has driven the Government of India to launch many new initiatives like Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), e-Acharya, Shodhganga, Shodh gangotri, Open Journals Access System (OJAS), Virtual Labs, Spoken Tutorial, etc., to make the knowledge accessible to all the learners across the nation. Similarly, in the school education system, the platforms that have been created like the National Repository of Open Educational Resources (NROER), e-Pathshala, Saransh, e-Basta, Shaala Siddhi, i-Share, e-Bhasha, Shaladarpan, etc. These tools are for teachers, students and parents. All these initiatives could be successful, if the teaching-learning community is acquainted with the skills required for these. Efforts should be made to develop the skills and enhance the competencies of teachers and Teacher Educators for handling e-Learning tools. In order to study the present status, researchers have assessed the competency of Teacher Educators and student teachers towards the use of various E-learning tools. The results showed that the competencies required for using such tools was found to be lacking in the Teacher Educators and student teachers.

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Introduction

Technology is a constantly evolving tool of education which affects all the stakeholders in education. It plays a major role in improving both the quality of higher education as well as its reach. There are about 799 universities, 39,071 colleges and 11,923 standalone institutions (AISHE 2015–16) in India. Current Gross Enrolment Ratio (GER) in higher education is nearly 24.5 per cent, which is to be increased by 30 per cent by 2020. Information and Communication Technology (ICT) enabled teaching or E-learning has the potential to achieve this target. This can make the courses accessible to students from home. As per the Twelfth Five Year Plan (2012–17), all universities shall be enabled to use technology to its fullest extent to offer programmes both through face-to-face mode and technology-enabled means. The Government of India has already taken steps to develop a platform named Study Webs of Active Learning for Young Aspiring Minds (SWAYAM). It offers online courses on education to the citizens of our country free of cost. It is India's official Massive Open Online Courses (MOOCs) platform specifically designed to benefit students from remote areas, working professionals as well as college dropouts.

It is possible only when teachers embrace the technology and are ready to contribute for this qualitative and quantitative improvement in higher education system. Technological change has affected Teacher Education, and for this, the importance of ICT to enhance quality in our school and Teacher Education system has been highlighted in the National Curriculum Framework for Teacher Education (NCFTE 2009). The National Council for Teacher Education (NCTE) has also come up with new curriculum frameworks in 2014, which have modified the complete structure of Teacher Education on a large scale. In terms of duration, curriculum, introduction of new courses, etc., ICT has been included as a compulsory part of the curriculum for the first time. As per the *Teacher Education Planning Handbook* (*2015–2016*), 'Technology in Teacher Education is to be actively integrated in all Teacher Education (TE) institutions. Satellite transmission communication, content develop-ment, MIS, interactive and self-paced learning should be the focus areas for bridging the divide digitally'. According to the Twelfth Five Year Plan for Teacher Education (2012–17), ICT should be explored for its digital processes and its tools that could support the creation of new models of Teacher Education for achieving the goals successfully as well as the critical challenges.

Though many researches have shown the importance of ICT and E-learning in the Indian higher education system (Nelasco, Arputharaj & Paul 2007; Rajpal, Singh, Bhardwaj & Mittal 2008; Sharma & Mishra 2010; Tripathi & Jeevan 2010; Bhatia

2011; Das, Banerjee & Basu 2011; Ray 2012; Kumar 2014; Musthafa & Mohammed 2014), there is a need to carry out a research related to ICT integration and E-learning in the area of Teacher Education. Firstly, the teachers need to be equipped with the basics of E-learning tools and their integration in teaching and learning. If they are well adapted with E-learning, it will change their outlook towards E-learning. In order to utilise E-learning tools, they must have a reasonable degree of computer literacy and fluency. Review has shown that the tools being used by the teaching fraternity are digital resources like online documents, images and videos (Dogra 2011), wiki, Social Network Service (SNS) (Majhi and Maharana 2011), blogs, Wikipedia, social bookmarking, podcasting (Tyagi 2012), Internet (Bass 2010), MS Word, MS Excel (Parida 2010), word processing, telecommunication, presentation, networking (Rastogi and Malhotra 2013), MS Word, Paint Brush (Johri 2009), DOS, MS Word, MS Excel, MS PowerPoint, Access, Internet (Mohanty and Pandua 2012), whereas the tools like blogs, audio, portals, commercial databases, online discussion with students (Dogra 2011), blogs, RSS, social bookmarking, audio/video (Majhi and Maharana 2011) are not being used so frequently. Many studies exist in areas of basic ICT competencies or usage, but merely uploading a PowerPoint presentation online, is not an indicator of usage. The E-learning tools which are being used in collaborative learning, problem solving, Higher Order Thinking Skills (HOTS), reflective practitioners, portal usage, etc., should be studied.

Objectives of the Study

- To study the competencies of Teacher Educators towards E-learning tools
- To study the competencies of student teachers towards E-learning tools

Method and Procedure

In the present study, the researchers have employed the cluster sampling technique to select the Teacher Education Institutions (TEIs) running B.Ed. courses in Delhi-NCR. The regions selected were Delhi, Faridabad, Gurugram and Bahadurgarh from the State of Haryana, and NOIDA, Greater NOIDA and Ghaziabad from Uttar Pradesh. In these places, the institutions that were running B.Ed. courses were selected as a sample which was affiliated to three universities that is, Guru Gobind Singh Indraprastha University (GGSIPU), Chaudhary Charan Singh University (CCSU), Meerut, Uttar Pradesh, and Maharshi Dayanand University (MDU), Rohtak, Haryana. From the list of TEIs, 10 institutions from each university were selected randomly and the total sample size was 30 TEIs. After selecting a sample of TEIs from each university, all the 129 Teacher Educators and 1,268 student teachers present at the time

of data collection were considered as a sample of the study.

A Competency Scale was developed by the researchers to assess the competency of the Teacher Educators and student teachers. After the review, the researchers decided to assess the level of competency to use E-learning tools with a three-point rating scale (options 'Never', 'To Some Extent' and 'Completely'). The scale was divided into four dimensions having a total of 48 items (12 in each dimension). A similar tool was developed for the student teachers also. The four dimensions of the rating scale were Basic Computer Competency, Advanced Computer Competency, Basic Internet Competency and Advanced Internet Competency.

In order to collect data in a systematic manner, the researchers visited and administered the questionnaires personally with the faculty members (Teacher Educators) and students (student teachers).

Analysis and Interpretation

The data was analysed quantitatively using percentage analysis.

Objective 1: To study the Competency of Teacher Educators towards E-learning Tools

In order to facilitate the research, the objectives of the study were further categorised into the following sub-objectives.

- To study the level of Basic Computer Competency of Teacher Educators
- To study the level of Advanced Computer Competency of Teacher Educators
- To study the level of Basic Internet Competency of Teacher Educators
- To study the level of Advanced Internet Competency of Teacher Educators

As seen in Table 1, it can be interpreted that the average Basic

Table 1
Percentage Analysis of Basic Computer Competency of the Teacher Educators

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	9.40	20.74	69.86
MDU	8.50	21.24	70.26
CCSU	20.16	26.34	53.49
Average between the Universities	**11.63**	**22.29**	**66.09**

Computer Competency of the Teacher Educators was 66.09 per cent in all the three universities. If we compare the competencies, then the Teacher Educators of MDU possess the maximum Basic Computer Competency with a little difference than the Teacher Educators from the GGSIPU. The least competency was that of the Teacher Educators from the CCSU. Thus, the order of Basic Computer Competency of Teacher Educators from the three universities was: MDU> GGSIPU> CCSU.

As seen in Table 2, it can be interpreted that the average Advanced Computer Competency of the Teacher Educators was 42.83 per cent in all the three universities. If we compare the competencies, then the Teacher Educators of MDU possess maximum advanced computer competency with a little difference than the GGSIPU. The least competency was that of the Teacher Educators from the CCSU. The order of Advanced Computer Competency of the Teacher Educators from the three universities were MDU> GGSIPU> CCSU.

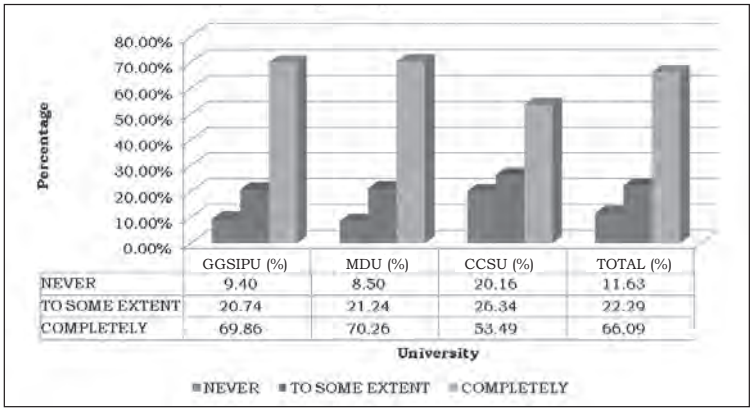

Figure 1. Basic computer competency of the Teacher Educators

Table 2
Percentage Analysis of Advanced Computer Competency of the Teacher Educators

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	24.29	29.96	45.74
MDU	25.16	27.78	47.06
CCSU	39.78	28.76	31.45
Total	**28.36**	**28.81**	**42.83**

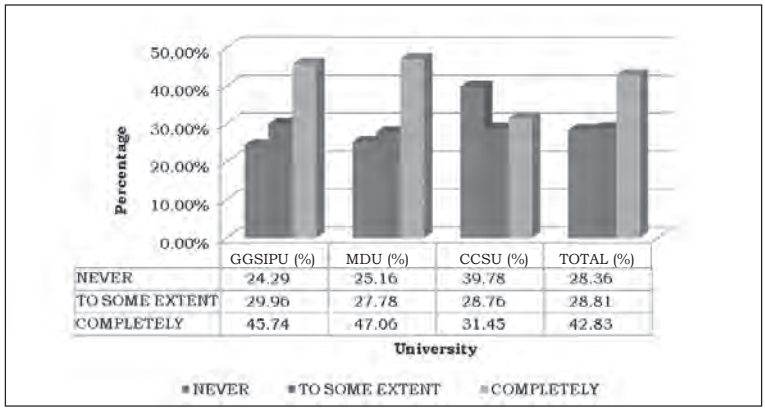

Figure 2. Advanced computer competency of the Teacher Educators

Table 3
Percentage Analysis of Basic Internet Competency of the Teacher Educators

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	17.38	20.39	62.23
MDU	15.20	27.12	57.68
CCSU	31.72	28.76	39.52
Total	**19.96**	**25.06**	**54.97**

As is seen in Table 3, it can be interpreted that the Basic Internet Competency of the Teacher Educators was 62.23 per cent and

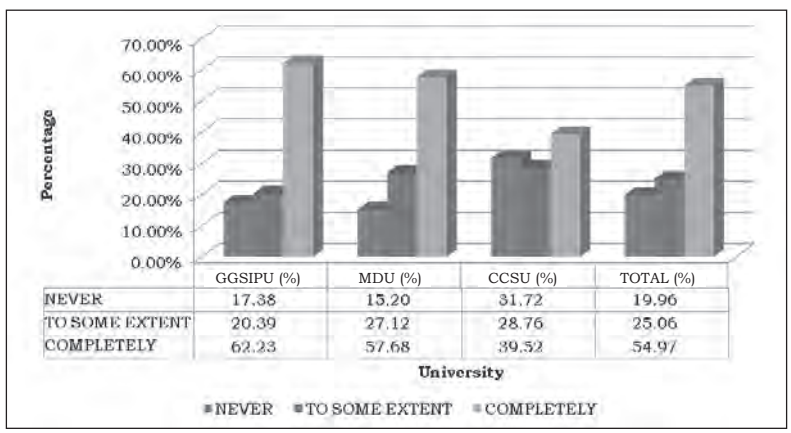

Figure 3. Basic Internet competency of the Teacher Educators

57.68 per cent in two universities that is, GGSIPU and MDU. However, it was only 39.52 per cent in CCSU. If we compare the competencies, then the Teacher Educators of the GGSIPU possess the maximum Basic Internet Competency with little difference than the MDU. The least competency was that of the Teacher Educators from the CCSU. The order of Basic Internet Competency of the Teacher Educators from the three universities was MDU> GGSIPU> CCSU.

From Table 4, it can be interpreted that the average Advanced Internet Competency of the Teacher Educators was very less that is, 18.09 per cent in all the three universities. If we compare the competencies, then the Teacher Educators of the MDU possess the maximum Advanced Internet Competency that is, 19.61 per cent with little difference than the CCSU. The least competency was among the Teacher Educators from the GGSIPU. This shows that the required competency for using E-learning tools is not fulfilled by the Teacher Educators in all the three universities.

Table 4
Percentage Analysis of Advanced Internet Competency of the Teacher Educators

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	46.10	37.94	15.96
MDU	46.24	33.99	19.61
CCSU	56.99	24.19	18.82
Total	**48.77**	**33.07**	**18.09**

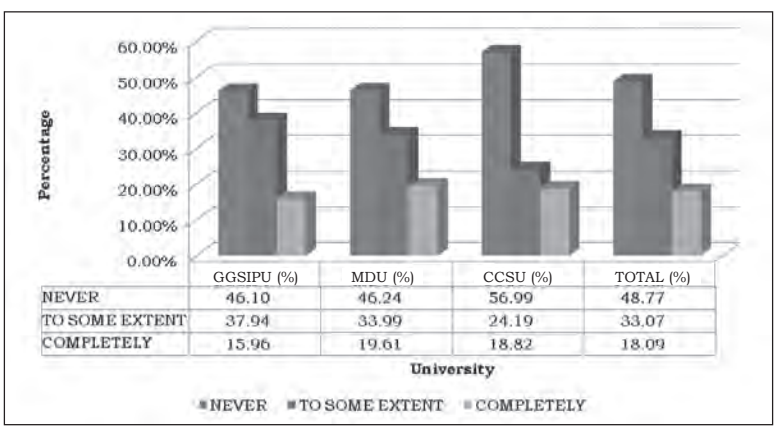

Figure 4. Advanced Internet competency of the Teacher Educators

Table 5
Overall Competency of Teacher Educators towards E-learning Tools

Dimensions of computer competency	GGSIPU (%)	MDU (%)	CCSU (%)	Average competency (%)
Basic Computer Competency	69.86	70.26	53.49	66.09
Advanced Computer Competency	45.74	47.06	31.45	42.83
Basic Internet Competency	62.23	57.68	39.52	54.97
Advanced Internet Competency	15.96	19.61	18.82	18.09

The above results showed that among all the three universities, the Teacher Educators from the CCSU have least competency in using E-learning tools. The Teacher Educators from the MDU were found to be the most competent among the Teacher Educators from the other two universities. It was also revealed that the Teacher Educators were not competent for using E-learning tools as they were very low where the dimension of Advanced Internet Competency was concerned.

further categorised into the following sub-objectives.

- To study the level of Basic Computer Competency of student teachers
- To study the level of Advanced Computer Competency of student teachers
- To study the level of Basic Internet Competency of student teachers
- To study the level of Advanced Internet Competency of student teachers

Table 6
Percentage Analysis of Basic Computer Competency of the Student Teachers

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	16	19	65
MDU	26	25	50
CCSU	26	23	50
Total	**21**	**22**	**57**

Objective 2: To Study the Competency of Student teachers towards E-learning Tools

In order to facilitate the research, the objectives of the study were

As seen in Table 6, it can be interpreted that the Basic Computer Competency of the student teachers was 57 per cent on an average in all the three universities. If we compare

the competencies for a particular university, then the student teachers of GGSIPU possess the maximum basic computer competency of 65 per cent which was higher than the student teachers in the MDU and CCSU, having equal basic computer competency (50 per cent).

teachers was 37 per cent in all the three universities. If we compare the competencies for a particular university, then the student teachers of GGSIPU possess the maximum Advanced Computer Competency with slight difference from the MDU and the CCSU. The order of Advanced

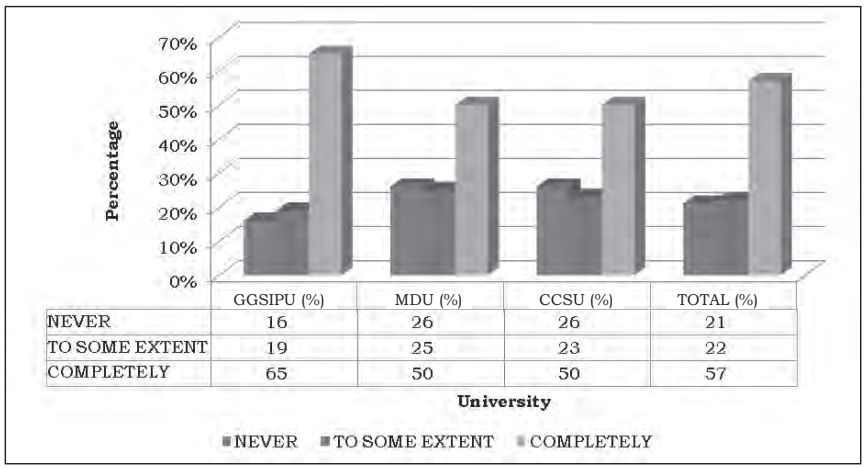

Figure 5. Basic computer competency of the student teachers

Table 7
Percentage Analysis of Advanced Computer Competency of the Student Teachers

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	29	28	42
MDU	43	27	30
CCSU	40	29	32
Total	**35**	**28**	**37**

As seen in Table 7, it can be interpreted that the average Advanced Computer Competency of the student

Computer Competency of the student teachers from the three universities were: GGSIPU>CCSU>MDU.

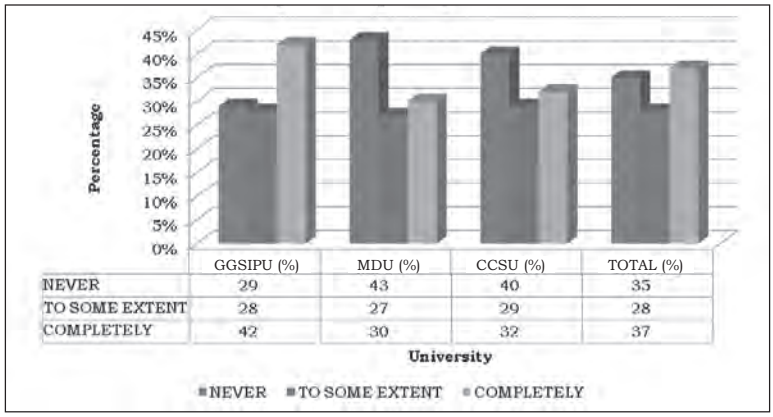

Figure 6. Advanced computer competency of the student teachers

Table 8
Percentage Analysis of Basic Internet Competency of the Student Teachers

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	20	21	60
MDU	39	24	36
CCSU	36	22	42
Total	**29**	**22**	**49**

As seen in Table 8, it can be interpreted that the Basic Internet Competency of the student teachers was 36 per cent in MDU, 42 per cent in CCSU and 60 per cent in GGSIPU. If we compare the competencies for a particular university, then the student teachers of the GGSIPU possess the maximum Basic Internet Competency with a good difference

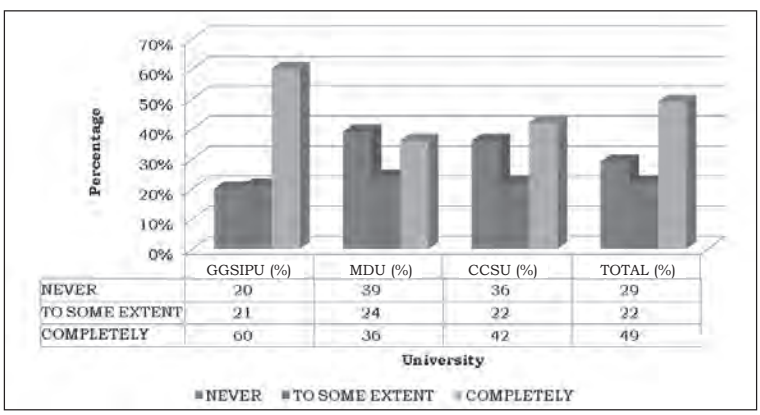

Figure 7. Basic Internet competency of the student teachers

from MDU and CCSU. The least competency was that of the student teachers from the MDU.

compare the competencies for a particular university, then the student teachers of the GGSIPU

Table 9
Percentage Analysis of Advanced Internet Competency of the Student Teachers

University	Never (%)	To Some Extent (%)	Completely (%)
GGSIPU	58	27	15
MDU	67	23	10
CCSU	62	23	14
Total	**62**	**25**	**14**

As seen in Table 9, it can be interpreted that the average Advanced Internet Competency of student teachers was 14 per cent in all the three universities. If we

possess the maximum Advanced Internet Competency with minute difference from the CCSU. The least competency was that of the student teachers from the MDU.

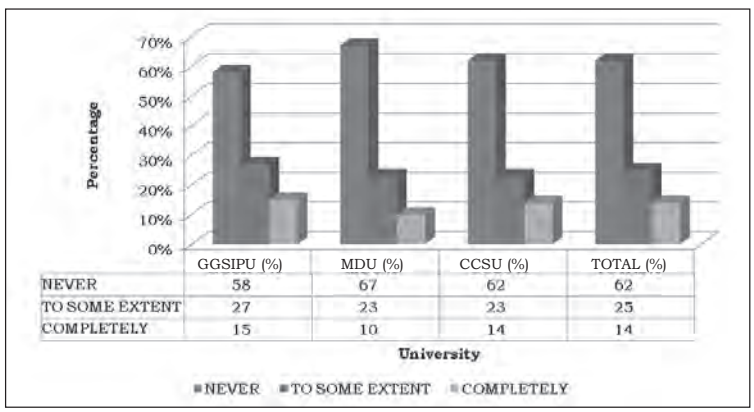

Figure 8. Advanced Internet competency of the student teachers

Table 10
Overall Competency of Student Teachers towards E-learning Tools

Dimensions of competencies	GGSIPU (%)	MDU (%)	CCSU (%)	Average Competency (%)
Basic Computer Competency	65	50	50	57
Advanced Computer Competency	42	30	32	37
Basic Internet Competency	60	36	42	49
Advanced Internet Competency	15	10	14	14

The results show that of all the three universities, the student teachers of the GGSIPU were more competent. It was also indicated that the student teachers of MDU scored very low on the dimension of Advanced Internet Competency, making them less competent to use the E-learning tools.

Discussion on the Findings

The major objective of the study was to assess the competency of the Teacher Educators and student teachers on four dimensions that is, Basic Computer Competency, Advanced Computer Competency, Basic Internet Competency and Advanced Internet Competency which are essential to use E-learning tools effectively.

The findings of the study revealed that the Teacher Educators are most competent on the dimension of Basic Computer Competency, followed by the dimensions of Basic Internet Competency, Advanced Computer Competency and Advanced Internet Competency. From the results, it can be concluded that Advanced Internet Competency which is considered to be a requisite for the usage of E-learning tools is very low. The results are consistent with the study of Das and Sharma 2012; Rajasekar and Vaiyapuri 2007; Rastogi and Malhotra 2013; Johnson 2012 and Parida 2010, who also showed that while the basic computer competency was on an average/good level, the competency of using the Internet was low. Anandan (2013) suggested that the Teacher Educators should acquire the competency of integrating the modern technologies in their practices, so that their student teachers learn to adopt the new practices. The competency is also dependent on other factors such as infrastructure, attitude, etc., as supported by Krishnakumar and Kumar (2011). They concluded that the teachers having access to the Internet within their institution, and both in the institution and at home differ significantly in their familiarity with ICT. This familiarity is more when the facility is available at both the places.

As far as the level of competency of using computer and the Internet among the student teachers is concerned, this may be acquired by them during their graduation or postgraduation (liberal courses) period, or while studying in Teacher Education programme. The competencies of various dimensions were analysed, and it was found that the overall competency in each dimension was 57 per cent, 37 per cent, 49 per cent and 14 per cent, which shows that the student teachers were not much competent to use computers and the Internet. The overall Basic Internet Competency was 49 per cent, and the student teachers were most competent to use email, and download content. The results has been supported by Goel 2006; Gulhane 2011 and Swamy 2012 who showed that the Basic Internet Competency was good/average in

terms of emailing and using search engines. According to Swamy, the students were developing ICT skills by themselves, and they needed more structured support of ICT development from their educational institutions. In line with the results, Parida (2010) and Sarsani (2006) showed that the basic computer competency was more than 50 per cent among the student teachers.

Suggestions

- Though NCTE has provided the Curriculum having the component of ICT but every university should include the latest topics on E-learning tools as per the requirement of new generation teachers and learners.
- E-learning tools should be properly integrated in all the subjects of Teacher Education curriculum of B.Ed. programme, so that the student teachers of all the streams get the competency towards E-learning tools.
- If all the teaching subjects of different languages (i.e. English, Hindi, Punjabi, and Urdu) consist of the components of E-learning tools, then the teaching-learning material in different languages can be developed by the student teachers.
- To increase the competency of Teacher Educators in E-learning tools, the curriculum of M.Ed. should also include the topics related to the concept and also the practical subjects.
- The policymakers should develop some guidelines in which the innovative approaches like blended, flipped learning, online learning in Teacher Education programmes should be elaborated.
- Policymakers should organise various workshops and in-service training programmes at the national level to train the Teacher Educators and the TEIs should also get the funding for this organisation.
- They can organise training programmes in ICT for student teachers who passed out through the various Teacher Education programmes.
- NCTE in collaboration with the state bodies can create some training centres in districts for the training of Teacher Educators and student teachers (both during and after the programme) with the help of Public Private Partnership.
- University can expose teachers for MOOCs on experimental basis for developing professional competency towards E-learning tools.
- The present study revealed that the Teacher Educators are not competent enough to use E-learning tools. So they should get some faculty development programmes in the summer vacations. Proper train-ing should be provided to Teacher Educators to use E-learning tools so that pedagogical approach can be followed.

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Awareness Level of School Management Development Committee Members regarding their Roles and Responsibilities

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Abstract

The paper examines the effectiveness of School Management and Development Committee (SMDC) by focusing on assessing the awareness level of SMDC members regarding their roles and responsibilities. By employing a descriptive survey method through a questionnaire, information was gathered from secondary schools which were purposively chosen. An interview was also conducted with the chairpersons of SMDCs, who is the head of the school. The study revealed that most of the members of SMDC are not aware about their role for the development of secondary education as prescribed by Rashtriya Madhyamik Shiksha Abhiyan (RMSA). Some members are also not aware about its meetings and most members are not oriented about their roles and responsibilities. Research also revealed that the awareness level of chairpersons of SMDCs is more than that of the other members. Orientation and capacity building programmes of all the members of SMDC by the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) authority, is seen as an essential requirement in addition to prescribing a minimum educational standard for the members.

Introduction

Education can play a vital role in improving the socio-economic conditions of any nation. It empowers citizens with analytic abilities, that lead to better confidence, and fortifies

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one with a power, springing out of one's competencies. Education not only improves textbook learning, but also aids the growth of knowledge, values, skills and basic capacities to prepare an individual for lifelong learning. The National Knowledge Commission Report (2009) has rightly mentioned, 'Decentralization of the management of schools, is the most effective instrument for ensuring accountability, improving the day to day functioning of the school and allowing for flexible responses to local requirements'. Since the Independence of our country, the Government of India has been striving hard to involve the community more and more in the system of administration and the process of development. The establishment of Community Development Blocks in the First Five Year Plan, and the creation of *Panchayati Raj* Institutions (PRI) at *Gram Panchayat*, Block and District levels were the initial attempts to ensure community involvement, especially in development and administration. The government enacted the 73rd Constitution Amendment Act, 1992 to confer constitutional status to the *Panchayati Raj* institution and thereby made it mandatory to involve communities in the process of development and administration.

Community participation is a process of activities comprising people's involvement in decision making and contribution to the development effort, sharing equitably the benefits therefrom. The goal of community participation in education is to universalize education and its access, getting all children enrolled and making the system retain all students, and to improve the quality of education. Community participation increases the mobilization of financial, human and material resources to make the educational system efficient and to adapt education to the needs, problems, aspirations and interests of all sections of population, especially the weaker section.

Community mobilisation and close involvement of community members in the implementation of secondary education is extremely critical, as it fosters the 'bottom-up approach' not only in effective planning and implementation of interventions in the schools but also in effective monitoring, evaluation and ownership of the government programmes by the community. Active participation of the community also ensures transparency, accountability and helps in leveraging the cumulative knowledge of the community for better functioning of schools. Field level researches by Ed.CIL (2002), Babulal (2012), Okendu (2012), Nzoka and Orodho (2014), Rout (2014) have shown that school functioning has improved significantly in places where communities have been involved actively.

In line with the above, the integrated programme of the *Rashtriya Madhyamik Shiksha Abhiyan* (*RMSA*) assigns special

importance to decentralised planning and implementation with active involvement of community members, teachers, parents, local bodies including *Panchayati Raj* Institutions, municipal bodies, and other stakeholders in the management of secondary education through the establishment of multi-member School Management and Development Committees (SMDCs). The *RMSA* framework provides that every secondary school will constitute an SMDC at the school level. SMDCs are made to take necessary steps for the overall growth and development of the school, leading to conducive educational environment for academic excellence.

In the pre colonial period, the facilities for mass education were available in madrasa, tols and *pathshalas* which were maintained locally by landlords and parents. With the onset of the colonial rule during the regime of Lord Rippon (1882), the local self-government was born and local bodies were developed as an instrument of political and popular education. The Hunter Commission Report (1882) states that, 'planning, management, maintenance, administration of primary schools should rest in local self bodies'. The Royal Decentralization Commission (1909) also emphasises the need to increase the power of local bodies in education.

In the post Independence period, the Central Advisory Board of Education (CABE)—the highest policy making body, set up a committee under the chairmanship of B.G. Kher on the relationship between the state government and local administration on primary education (1951).

The Balwant Rai Mehta Committee Report (1957) recommended the establishment of an interconnected three-tier organisational structure of democratic decentralization in education at the village, block and district level. Balwant Rai Mehta was also of the opinion that the *Panchayat Samitis* at the block level should have the responsibility of maintaining primary school. The Ashok Mehta Committee (1978) also suggested two ways for inducing peoples' participation in local decision making of education. These are: (i) administrative decentralization, and (ii) bringing it under the control of the local bodies for effective implementation of developmental programmes. The Acharya Ramamurti Committee (1990) reviewed the report of National Policy on Education (1986) and emphasised the decentralization of educational management at all levels. The Programme of Action, 1992 (PoA) stressed on social mobilization to universalize literacy and basic education. For ensuring quality education, it also stressed on the establishment of the Village Education Committee (VEC) and empowerment of the grassroots implementing agencies. In 1993, the special committee of Central Advisory Board of Education (CABE) formulated a framework for the decentralization

of educational management under the *Panchayati Raj* Institutions (PRI) framework and took the process of decentralization from the district to the block and village level. The National Policy on Education (NPE 1986, 1992) and the constitutional revival of the *Panchayati Raj* Institutions (through the 73rd and 74th constitutional amendments) created a context for reforming the school system by empowering the community to locally generate and implement institutional practices to support the school. The NPE (1986) and PoA (1992) recommended not only promoting the participation of the community in primary education but also a movement towards empowering the local community to take major management decisions in this regard. Various educational programmes in India implemented community participation in education like the *Shiksha Karmi* Project (SKP)[1], *Lok Jumbish*[2], *Janshala*[3], District Primary Education Programme (DPEP)[4] and *Sarva Shiksha Abhiyan* (*SSA*)[5].

According to Ed.CIL (2002), Babulal (2012), Okendu (2012), Nzoka

1 *SKP*—The *Shiksha Karmi* Project is being implemented in Rajasthan since 1987 with assistance from the Swedish International Development Agency (SIDA). The project aims at universalisation and qualitative improvement of primary education in remote and socio-economically backward villages in Rajasthan with primary attention being given to girls. It also promotes community involvement in primary education and was to appoint a local teacher known as shiksha karmi who could reach every child of locality.

2 *Lok Jumbish*—It means 'Peoples' Movement for Education', which was initiated in Rajasthan in 1992 with assistance from the Swedish International Development Agency (SIDA). It aimed at providing access to primary education to all children upto 14 years of age, pursuing the goal of equity in education by enrolling and retaining all the children in the school. Gender equity and empowerment of women were the main goals of this project. The Village Education Committee, Core Teams and Women's Group were actively involved in this project.

3 *Janshala*—This programme was a joint venture of the Government of India and five United Nations agencies that is UNDP (United Nations Development Programme), UNICEF (United Nations International Children's Emergency Fund), UNFPA (United Nations Population Fund), UNESCO (United Nations Educational, Scientific and Cultural Organization) and ILO (International Labour Organization) to provide support to make primary education accessible and effective to all categories of primary school age children. Community participation in school management and development was one of the major strategies adopted under this programme, especially to ensure universalisation of primary education. The programme covered Andhra Pradesh, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Uttar Pradesh.

4 DPEP—The centrally-sponsored scheme of the District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to revitalise the primary education system. The DPEP adopts a holistic approach to universalise access, retention and improve learning achievement and to reduce disparities among social groups. It emphasises on decentralised management, community mobilisation and district specific planning.

5 *SSA*—The *Sarva Shiksha Abhiyan* is an Indian government programme aimed at the universalisation of elementary education 'in a time bound manner', as mandated by the 86th Amendment to the Constitution of India, and aims to provide free and compulsory education to children between the ages of 6–14 by 2010. One of the distinct features of the SSA is the effective involvement of *Panchayati Raj* Institutions (PRIs), School Management Committees (SMCs), Village Education Committees (VECs), Parent Teacher Associations (PTAs), MTAs and community members in education.

and Orodho (2014), Rout (2014), the School Management Committees help in improving retention and achievement level of all children, in effective management of schools, to achieve universal enrolment and upliftment of the standard of secondary level. According to Pandey (2008) and Vasanta (2009), teachers, including the chairperson of SMDC are more aware about their duties and responsibilities than parents and other members of SMDC, and in rural areas, the awareness level of the SMDC members is very low than in the urban areas. According to Yousuf (1995) and Parajuli (2007), the School Management Committee (SMC)[6] members were ignorant about their duties and responsibilities; the member secretaries also did not take steps for organising SMDC Meetings. Karia (2009), Nyandro, Mapfamo and Makoni (2013) observed that due to lack of course on management and orientation among the SMDC members, they were not aware about the management of funds, preparation of budget, decision making and raising funds. From the above review, it is found that the SMDC is less aware about its role as prescribed by the *RMSA*. The Government of Karnataka in 2004 found that literacy does not affect the effectiveness of the school management committee. A study by Nzoka and Orodho (2014) found that the students' academic performance was not realised due to the lack of managerial skills in the school managers—the reason being an absence of training.

In the present study, an attempt is made to investigate the awareness of the members of the SMDC about their roles in the school management system at the secondary level as laid by the *RMSA*. The ten schools for the study are drawn from the district of Cuttack from Odisha through purposive sampling. By employing a survey method, data was collected through questionnaire and interview schedule developed for the purpose. The tools are validated through expert opinion and pilot technique. The tools are individually administered on the participants to collect data.

Need and Significance of the Study

The vision of secondary education is to make quality education available, accessible and affordable to all young persons in the age group 14 to 18 years. Community mobilization and close involvement of its members to provide secondary education is extremely critical as it fosters the 'bottom-up approach' not only in effective planning and implementation of intervention in the schools but also in effective monitoring, evaluation and ownership

6 SMC—As per Sections 21(1) and 21(2) of Right of Children to Free and Compulsory Education Act, all government and government-aided schools shall constitute a School Management Committee (SMC) of the elected representatives of the local authority, parents and guardians of children admitted in such schools, and teachers at the elementary level.

of the government programme by the community. Though there have been major recommendations made by the government and also by different agencies to bring qualitative improvement in the school education through certain mechanisms, school education presents a gloomy picture in Odisha. In most of the cases, it is observed that schools lack even the basic infrastructure. This has led to many questions, as to whether there is lack of political will in bringing about quality education in the schools or if the SMDCs have failed to play their role. Since SMDCs have the role of liaison among the school systems, community and district level education bodies, it is important to study whether the members are aware about their role and responsibilities.

Objective of the Study

To analyse the awareness of the members of the SMDC about their roles and responsibilities in the school management system at the secondary level as laid by the *RMSA*

Research Question

Are the members of SMDC aware of their roles and responsibilities as laid down in the guidelines of the *RMSA*?

Method

The present study made use of the descriptive survey method. The survey method was used for studying the awareness level of the School Management and Development Committee in the management of secondary schools.

Population

For the present study, the population consists of all the members of the school management and development committees of government and aided secondary schools of Badamba block of Odisha. In Badamba, there are 30 secondary schools and in each school there is an SMDC.

Sample

Ten school management and development committees working in ten different secondary schools were purposively selected as the sample for the study and 60 participants were consulted to gather information. Among them, there are ten school heads, twenty teachers, and thirty members from the community.

Tools

The present study used four tools for the purpose of collection of data.

- Questionnaire for School Management and Development Committee members—that is, teachers and parents/community members
- Questionnaire for the chairpersons of SMDC
- Interview schedule for chairpersons
- School information schedule

All the tools were prepared keeping in mind the objectives in consultation with the experts. The draft tools thus developed were sent to four experts for content validation. After receiving suggestions from the experts, the final tools were prepared.

Ambiguous items were deleted, the sentences were made simple, and the language was tuned to convey the meaning very clearly.

Procedure of Data Collection

Permission from the concerned authority was taken by briefing them on the purpose of the study. The tools were administered individually by visiting all the sample schools. Prior appointment was obtained from the members in order to collect information in a controlled condition.

Analysis and Interpretation

For assessing the awareness level of the different stakeholders, the study covered several components. An analysis of the awareness levels of the chairpersons, teachers and community members of the SMDC regarding their role as identified through the questionnaire is given below.

Table 1 shows the awareness level of the chairpersons of SMDCs about their role and responsibilities as per *RMSA*. From the table, it is understood that the maximum number of chairpersons are aware about their roles and responsibilities but there is a need to work towards bringing awareness among all the chairpersons in all the areas.

Table 2 shows the number and percentage of teacher members' awareness about SMDC and their various roles as per *RMSA*. This table shows that 30 per cent teachers do not know about their role in SMDC.

Table 3 shows that about 93.33 per cent of parents/community members do not record the proceedings and discussions of the SMDC meeting. Maximum members do not list out the needs, do not participate in meetings, or check teachers' attendance. They donot take part in budget preparation or monitor indiscipline among learners, etc. The overall response on the awareness level of parents/ community members about their roles and responsibilities is very low.

In addition to the questionnaire, interviews were conducted with chairpersons, teachers and parent/ community members to gather

Table 1
Awareness Level of Chairpersons regarding their Role in SMDC

S.No.	Area of Awareness	Total Members			
		Aware		*Not Aware*	
		Number	%	Number	%
1.	Guidelines of the RMSA	6	60	4	40
2.	Enrolment of the weaker section	7	70	3	30
3.	School development plan	10	100	0	0
4.	Prescribed duty	8	80	2	20

Table 2
Awareness Level of Teachers regarding their Role in SMDC

S.No.	Area of Awareness	Total Members			
		Aware		***Not Aware***	
		Yes	%	No	%
1.	Guidelines of *RMSA*	14	70	6	30
2.	Preparation of minutes	14	70	6	30
3.	Preparation of agenda	14	70	6	30
4.	Implementation of CCE	14	70	6	30
5.	Maintenance of cumulative record	14	70	6	30
6.	Addressing disable children	14	70	6	30

Table 3
Awareness Level of Parents/Community Members regarding their Role in SMDC

Area of Awareness	Total Members			
	Aware		***Not Aware***	
	Yes	%	No	%
Idea about SMDC	17	56.67	13	43.33
Guidelines of RMSA	17	56.67	13	43.33
Participation in SMDC meeting	16	53.33	14	46.66
SMDC training	10	33.33	20	66.66
Record the proceedings and discussion	02	06.66	28	93.33
List out the needs of school	04	13.33	26	86.66
Enquired and reported on educational deficiencies	09	30	21	70
Observation of teachers' absenteeism	04	13.33	26	86.66
Put point in SMDC meeting	12	40	18	60
Preparation and recommendation of annual budget	09	30	21	70

Observation of indiscipline among students	10	33.33	20	66.66
Bothering about regular opening of school	15	50	15	50

further details regarding their level of awareness about their roles and responsibilities as members of SMDC.

Table 4 reveals that all the members are notified about the SMDC meetings, either through a written note, or telephonically. No prior information on the agenda to be discussed will be informed to the members in the notice.

Table 5 presents the responses of the awareness of the teacher members as given by them. No member is contributing in budget planning, discussing about attendance, discipline, community mobilisation to overcome barriers in children belonging to the SC, ST, OBC, educationally backward minorities, children with disabilities, to check the law and order situation in and around the school premises, health condition and immunisation of students, equity aspects, etc. This shows that in the real sense, maximum teachers are not aware about their role as an SMDC member.

Table 4
Awareness of Head Teachers about the Organisation of SMDC Meeting

S.No.	Description of Item	Responses
1.	Procedures followed to conduct meeting and to communicate members about meetings	• Notice about the date, time and venue of SMDC meeting made and sent to SMDC members by peon or students before meeting. • Telephoning the SMDC members about the date, time and venue of meeting

Table 5
Awareness about the Role of Teachers in SMDC

S.No.	Description of Item	Responses
1.	Cooperation with SMDC for their effective functioning	• Regularly attend the meetings • Suggest for school development • Cooperate with chairperson of SMDC • Create community awareness • Take part in yearly planning • Convey all the problems related to school • Organise different events of school

To check the awareness level of parents/community members, the investigator ask several open ended questions, and records their responses which are given below.

Table 6
Awareness of Role of Parent/Community Member as SMDC Member

S.No.	Description of Item	Responses
1.	Knowledge and understanding about the role and function of SMDC	• Cooperate in school work • Budget preparation • Different event organisation • Distribution of cycle and uniform • Attend meetings

This table reveals that maximum members are not aware about their actual role as to monitoring the academic and non academic affairs, to check the regularity of teachers and students, do the maintenance and repair work, keep the environment clean, infrastructural development, etc. They only involve themselves in few tasks related to the school, and do not take part in the all round development of the school.

Result and Discussion

Discussion on the Awareness of SMDC Members about their Roles in the School Management System at the Secondary Level

- The study found that the efforts of the state government to provide effective orientation to the SMDC members are not up to the mark. According to the District *RMSA*, in the year 2011, the government provided *RMSA* training to secondary school SMDCs for the first time after the formation of SMDCs. No further training was provided. Now in 2016, only 138 standalone secondary schools (VIII–X) shall be provided SMDC training in Odisha, of which in Badamba block, only 5 schools are there in the list according to the *Odisha Madhyamika Shiksha Mission* (OMSM)[7]. No concrete and innovative measures were initiated by the state to build the capacity of all the members and frequently regarding their roles, functioning and powers. Many a times, the training programme at Panchayat or at BRC is more of a symbolic ritual, not the training *per se*. Hardly, one or two

7 OMSM—(Reference No-1503/OMSM(RMSA)/16,Dt-28/07/16) The *Odisha Madhyamik Shiksha Mission* is the nodal agency under the umbrella of the School & Mass Education Department, Govt. of Odisha, registered under the Society Act on 16.02.2010 for the successful implementation of the centrally sponsored scheme [*Rastriya Madhyamik Shiksha Abhiyan* (RMSA), Girls Hostel, ICT at School, IEDSS, Vocational Education] and the Model School Scheme throughout the State.

members, usually the president, vice-president and the member secretary are involved in such a training process.

- Most of the schools do not conduct the general meeting to select the members for SMDC. It defeats the sole purpose of the RMSA, as meetings are major events of the SMDC to plan and monitor the activities of the school. A similar finding is recorded by Yousuf (1995) where he observed that the SMC members were ignorant about their duties and responsibilities. The member secretaries did not take necessary steps for proper and regular meeting.
- As maximum members of the SMDC have not gone through training, they are not aware about their role and responsibilities in school management. The members blindly follow others and perform their role. This in fact defeats the ideology based on which RMSA has been formed, which envisages that members take decision on their own for the welfare of their school. Similar findings are recorded by Kaaria (2009) and Nyandro, Mapfamo and Makoni (2013) where they observed due to lack of management course and orientation among the SMDC members about their roles and responsibilities, they were not aware about the management of funds, preparation of budget, decision making and raising funds.
- Only date, time and venue of meeting is informed to SMDC members by the chairperson. No agenda of discussion is provided prior to the meeting, because of which the members are not showing any interest to attend the meeting. Some members come for name sake not preparing the issues which have to be discussed in the meeting. Due to which during the time of discussion SMDC is not able to understand the matter and also not able to solve the problem. Sometimes meeting notice is sent by students to respective parents. They sometimes do not inform their parents about the meeting. It is also found that the chairpersons are not aware of conducting meetings properly, and they do not know how to communicate to the members about the meeting. Most of the times, maximum members were absent during the meetings.
- In most of the SMDCs, the awareness level of the chairperson is more than the other members. Due to proper orientation about the roles and responsibilities, the chairperson is aware of his roles and responsibilities. Similar findings are recorded by Vasanta (2009) and Pandey (2008),where they observed that teachers including headmasters are more aware about the duties and responsibilities than parents, and parent members are the least informed and least participative.

In rural areas, the awareness level of the SMDC members is very low. It may be due to lack of basic literacy. In the rural schools, the members are found to be avoiding meetings because their daily wage is getting affected. But in some semi urban schools, the awareness level of the SMDC members is found to be better.

- The study found that many a times, the training programmes are confined to informing the participants about their responsibilities but no information is given about their powers, functions and effective leadership at the school level. The training is neither needed nor useful to improve the day to day functions of the SMDCs. It is more ritualistic and top-down in approach. The study also found that since the parent members are unaware of their powers, many a times the head teacher or the assistant teachers dictate the terms for SMDCs.

Conclusion and Implications of the Study

From the data presented and interpreted in this study, very poor image of the SMDC emerges. But the reality of the functioning of the SMDCs is harsher than the one presented in the study. On the basis of the experiences gained during the data collection and analysis, it is found that the effectiveness of the SMDC is not felt mainly due to the lack of awareness of members about their role as prescribed by RMSA. The effective functioning of the SMDCs can play a major role in the school improvement programme and Universalisation of Secondary Education. Capability building aspects of such persons (SMDC members/principals/stakeholders) need more attention. The failure of the SMDCs are a sign of the lack of such capability among the persons who have been assigned the task of making the SMDCs successful. The findings of the present study would guide in bringing some changes in the organisation, administration and management of education with the following recommendations, as listed below.

- Training may be provided periodically to the SMDCs to be aware of their role and responsibilities.
- There should be a basic criteria with reference to the level of education, activeness, interest and involvement in the school matter to select each member.
- The involvement of the Non Governmental Organisations in the process of orienting the SMDC members is crucial to make this huge task more achievable and workable.
- The state should come out with a plan to empower all the SMDC members, both elected as well as the members of parents' council, on empowering them about their roles, powers and responsibilities as per the model by-laws.

- Apart from orientations through the top-down mode, from the state to the panchayat level, innovative mediums like street plays, drama, short films, folk media, etc., should be used to enhance awareness.
- It is necessary to orient all Chester Resource Persons (CRPs), Block Resource Persons (BRPs), Block Resource Coordinators (BRCs) and Block Education Officers (BEOs) about the mode by-laws in order to make them aware about the roles, responsibilities and functions of SMDCs and thereby respecting the very philosophy of the decentralised administration
- There is a need to shift from one time training regime to one that is need based, continuous and built into the system.
- Organising awareness classes and continuing literacy sessions for parents at the respective school level since a majority of parents of the children studying in government schools today are either semi-literate or illiterate.

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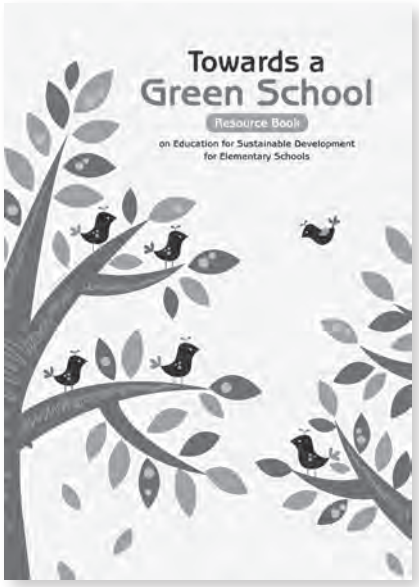

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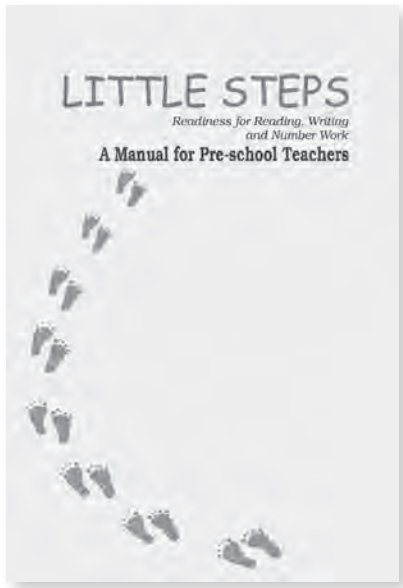

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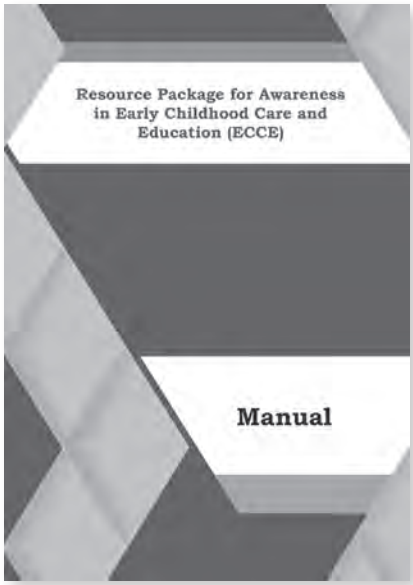

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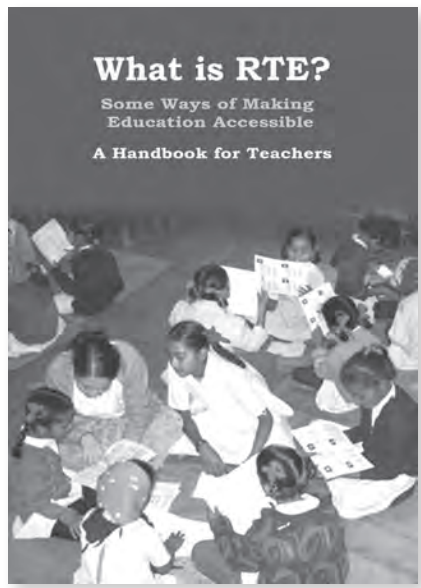

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