CHAPTER-5

SUMMARY AND CONCLUSION

5.1. INTRODUCTION

‘Higher education’ as a term came into prevalent usage around second half of the twentieth century. The term ‘higher’ in higher education can be defined as a specific quality of cognitive rigour, a stage where students learn to question the prevailing set of rules and regulations and also understand theories, methods and essence of “academic” knowledge. Thus, “it underscores a common biographic stage of learning: after ten to fourteen years of schooling and upon completion of primary & secondary education, students might enroll in a third stage of education prior to embarking on regular employment” (Teichler, 2004).

Higher Education is an instrument for augmenting efficiency and technical expertise of human resources so as to bring them at par with international standards in terms of intellectual and professional capabilities to meet the challenges of competitiveness and globalization. All India Survey on Higher Education, 2011 by Ministry of Human Resource and Development stated that “higher education is of vital importance for the country, as it is a powerful tool to build knowledge-based society of the 21st century (MHRD, 2011)”. Higher education has shown to ensure economic independence and better job opportunities.

India’s higher education system is the third largest in the world, next to the United States and China. Its demographic trends show that it will overtake China as the world’s largest population and its middle class’s demand for higher education will swell to over 500 million people in the next ten years. In spite of this pace of progress, India’s institutions for higher education have not reached the world excellence standards. Various studies have shown that the quality of teaching and learning delivered by higher education institutions in India is not up to the mark. The rapid expansion of higher education since the mid-1990s, have put a strain on the meager resources of the institutions and have led to a number of problems, like a fall in educational expenditure per student, a decline in the overall teaching conditions and a lack of uniformity in the quality of education being disseminated across the
universities. This has resulted in a perceptible decline in quality as a whole, and various stakeholders have shown concerns regarding the quality of teaching in higher education in the last few years (Liu, 2014). Within this context, higher education in India needs to shift its priority from the expansion of quantity to the enhancement of quality.

5.2 QUALITY IN INDIAN HIGHER EDUCATION

Quality in higher education has become top most priority throughout the world and the principles and practices of quality assurance have become rooted in higher education. This has given rise to procedural questions about evaluating quality and a need for developing new understandings regarding quality assurance. There is a requirement for taking adequate feedback from the quality assurance system itself (Coates, 2006). “Despite the fact that universities regularly gather a considerable and often an ever-increasing quantity of data to ensure quality assurance, it is still true that most of the discussions related to the quality of higher education demonstrate very less explicit concern about the interaction of students with their universities and with the systems and practices that are most likely to lead to productive learning. There is a need for emphasis to shift on what students are actually doing” (Ramsden, 1992) so that a real improvement in total quality management of higher education can be achieved.

5.3 HIGHER EDUCATION AND STUDENT ENGAGEMENT

Nowadays students in higher education are bored, unmotivated, and uninvolved. In other words, they are disengaged from the academic and social aspects of academic life. “Student engagement has thus become a significant consideration for educators both as a means of understanding student behavior and performance and for addressing student needs – individually and through system-wide efforts” (Skinner & Belmont, 1993). The present study is an attempt to examine student engagement levels in higher education and analyzing the factors that determine student engagement.

5.4 STUDENT ENGAGEMENT

“Student engagement is a current buzzword applied to higher education that has been increasingly researched and debated, with growing evidence indicating its significant effects on students’ learning achievements and personal development”
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(Gunuc and Kuzu 2014). Results from experimental studies have repetitively revealed that students’ engagement in purposeful educational activities is related positively to their critical thinking skills, grades and persistence with studies that they showed between the first two years of college. The studies have further shown that low ability students benefitted more from engagement than their classmates (Carini, Kuh, and Klein, 2006)

The first indirect mention of student engagement can be found in the 1940's when Tyler (1949) showed that the time spent on the task positively affects students’ learning. According to him, “Learning takes place through the active behaviour of the student; it is what he does that he learns, not what the teacher does” (Biggs, 2007).

Active research on student engagement has happened essentially in the last 33 years, advancing with an article by Mosher and McGowan (1985) in which they deplored that “no investigation has directly conceptualized or measured Student Engagement. ‘Engagement' per se is rarely ever mentioned. Rather it must be inferred elliptically from other investigations of students who disengage, dropout, or are alienated”. They concluded that a well-developed method of assessing engagement did not exist and that “engagement” had no real theory.’ To overcome that gap they gave a conceptual framework of engagement for the very first time in which they defined engagement as:

- “Engagement is the attitude leading to and participation in school programs
- Engagement has multiple interactive determinants
- Engagement will have an impact on many student and school outcomes including achievement, academic knowledge and social behaviour
- Students’ engagement can be a complex state of perception or a way of acting
- Many of its antecedents are deeply rooted in the larger society, the family and, in the school and classroom”

Since then the concept of student engagement has grown over the years relying at times on various theories and models.

One of the earliest theories of engagement is based on the participation-identification model (Finn 1989). “It is a seminal theory addressing significant
variables of a student. According to this theory student engagement has both a behavioural component, termed participation, and an emotional component, termed identification” (Finn and Voelkl, 1993).

Another influential model on student engagement was developed by Connell and his colleagues (Connell 1990; Connell and Wellborn 1991; Skinner and Belmont 1993). This model is based on the self-determination theory. According to this theory, student engagement is influenced by the degree to which students perceive the educational context as meeting their psychological needs.

5.4.1 STUDENT ENGAGEMENT- DEFINITIONS

As per the most commonly employed conception, engagement refers to “the manifest behaviour of students and is reflected in their active participation in educationally purposeful activities, both inside and outside the classroom” (Kuh, 2003). The most widely used definition of student engagement is one that was coined by Kuh (2001). According to him “Student engagement represents both the time and energy students invest in educationally purposeful activities and the effort institutions devote to using effective educational practices” (Kuh, Cruce, Shoup & Kinzie, 2008).

The alternative conceptualization views student engagement solely in terms of the attitude of students towards their learning experiences. For instance, Mann (2001) considers engagement as the antonym of alienation, Maslach and Leiter (1997) think of it as the exact opposite of burnout. Both alienation and burnout are attitudinal phenomena reflecting cognitive and emotional experiences of a person. Schaufeli et al. (2002) have defined student engagement more explicitly “as a positive, fulfilling, and affective motivational state”. Mosenthal (1999) too has argued that “student engagement construct is grounded in the cognitive and affective systems of the learners”.

Combining the two conceptions summarized above, Marks (2000) has defined student engagement more comprehensively as “a psychological process, specifically, the attention, interest, investment and effort students expend in the work of learning.” According to Skinner et al. (1990), “student engagement refers to students’ initiation of action, effort and persistence on their work as well as ambient emotional states.
during learning activities”. Cleary & Skaines (2005) too define student engagement as “the active involvement, commitment and a sense of belonging that dictates the time and effort students devote to educationally purposeful activities.”

Another way to understand engagement is through the understanding of its antonym which is not disengagement but disaffection. “Disaffected children are passive, do not try hard, and give up easily in the face of challenges. They can be bored, depressed, anxious, or even angry about their presence in the classroom; they can be withdrawn from learning opportunities or even rebellious towards teachers and classmates” (Skinner and Belmont, 1993).

From the above discussion a trend can be observed in the development of the concept of Student Engagement. Early investigations of student engagement frequently centered on observable behaviors e.g., behaviors directly related to academic effort and achievement (Johnson, Crosnoe, and Elder, 2001). Later on the definitions also included the affective component e.g. engagement in education was defined as “…having both a behavioural component, termed participation, and an emotional component, termed identification” (Jimerson, Campos and Greif, 2003). And more recently student engagement has been used to “depict students' willingness to participate in routine educational activities, such as attending classes, submitting required work, and following teachers' directions in class, participation in education-related activities, achievement of high grades, and amount of time spent on homework, and also the rate of homework completion. In addition to the behaviors listed above, some researchers include measurements of delinquency, truancy, or misbehavior in their investigation of engagement” (Bullis & Yovanoff, 2002).

5.5 DIMENSIONS OF STUDENT ENGAGEMENT

“Student engagement is a multi-dimensional, multifaceted construct that includes affective, behavioural, and cognitive dimensions”(Fredricks, Blumenfeld, & Paris 2004). The affective dimension refers to the students’ emotional response/s to their teachers, peers, academics and educational institutions. The behavioural dimension covers students’ performance or actions that can be observed; e.g. participation in co-curricular activities, scores on achievement tests, quality and
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timely submission of assignments as well as their grades in class. The cognitive dimension relates to students mental investment, comprises students’ perceptions and beliefs related to self, teachers, and peers. It incorporates thoughtfulness and a willingness to exert the effort necessary to comprehend complex ideas and master difficult skills (Jimerson, Campos & Greif, 2003). In this regard, it can be concluded that student engagement is like an over-arching meta-construct which integrates different and diverse lines of research to explain student success (Kahu, 2013).

These different dimensions have been developed by researchers and educationists for the sake of convenience of understanding and of handling this multidimensional concept which otherwise defies one definition and conception. But in reality there are no water tight compartments in the study of student engagement. The three types of engagement overlap because the way students think, feel, and behave are all related. The main concept for each type of engagement can be explained separately and they are slightly different, but the sub-constructs under each idea are related and overlap.

5.6 RELEVANCE OF STUDENT ENGAGEMENT IN HIGHER EDUCATION

The variables connected with higher education are changing rapidly. Besides infusing knowledge, higher education aims at skill development and it’s practical application. Mass education as an important component of at tertiary level was earlier prominent in North America and the other English-speaking world but is now spreading to other nations also. Besides, the milestone of high participation in higher education has already been achieved in most of the developed countries.

Education is a two way traffic involving teachers and the taught. Quality of education and competence of a teacher alone cannot produce good students until and unless they are motivated and involved in their study. The prime requirement for any good education system to work is for students who have a genuine craving for knowledge. Thus there is a strong requirement for students to be involved in the educational process. Student engagement has thus become a significant consideration
for educators both as a means of understanding student behavior and performance and for addressing student needs – individually and through system-wide efforts.

In recent years, the quality of teaching and learning has been under close scrutiny from students and the authorities alike because of the growing influence of higher education on political, social and economic variables (Byrne and Flood 2003). In order to make sure that excellence in the teaching learning process is demonstrated in higher education institutions, a growing number of surveys focusing on student engagement have been administered in countries such as the USA, the UK, Australia and China (Shi et al. 2014). In the “USA, the Indiana University Centre for Postsecondary Research annually administers the National Survey of Student Engagement (NSSE)” (Kuh 2009). “More than 1500 four-year colleges and universities in Canada and The USA have taken part in NSSE since it was launched in the year 2000 with 586 institutions from USA and 27 from Canada participating in 2013” (NSSE 2013). In the same way, the Australasian Survey of Student Engagement (AUSSE) has been administered on the students from New Zealand and Australian Universities since the year 2007. “In the year 2009, the Chinese version of the NSSE was also administered nationwide by a research team at Tsinghua University” (Shi et al. 2011).

In India MHRD has been conducting survey on higher education regularly since 2010-11. Recently report of All India Survey on Higher Education 2015-16, being the sixth round of annual survey was placed on its website. This kind of survey creates a data base to facilitate central and state government to take informed decisions and for formulation of future polices. Scope of these surveys need to be broadened to study the engagement level of students, understand various factors that influence student engagement and suggesting interventional measures for improving student engagement levels.

5.7 DETERMINANTS OF STUDENT ENGAGEMENT UNDER INVESTIGATION

Student engagement being a multi-faceted construct is affected and determined by numerous variables. The present study is confined to under-mentioned demographic, personal and institutional variables that determine student engagement:

5.7.1 Demographic Determinants
The demographic determinants include such information as gender, social class, economic status dependent on family income and location.

5.7.2 Personal Variables

Personal variable refers to a variable that relates or belongs to a single or particular person rather than to a group or an organization. Variable is something that is liable to change. So a personal variable is a unique characteristic that varies from one individual to another.

There is a need to study personal variables comprehensively for a better understanding of student engagement.

5.7.2.1 Previous Academic Experiences

Previous Academic Experiences is an important factor that influences “students’ ability and commitment to persist in their engagement. Previous academic experiences refer to the human, social and cultural capital students bring to higher education (Astin, 1993). “They are typically beyond the direct control of the student or the college or university. Rather, they are the products of many years of complex interactions of the students with their family of origin; and cultural, social, political, and educational environments. Thus, some students are better prepared academically and have greater confidence in their ability to succeed than others” (Martinez and Klopott, 2003). These factors give a full gamut of experiences experienced inside as well as outside the educational institute which have a direct effect on academic performance and achievement. Previous academic experiences affect habits and expectations as well as presence/ lack of preparation that students bring to higher education (Kuh, Kinzie, Buckley, Bridges, Hayek, 2006).

A study of previous academic experiences is the “cumulative, longitudinal view of what matters to student success, recognizing that students do not come to postsecondary education tabula rasa. The quality of the academic experiences and intensity of the high school curriculum affect almost every dimension of success in postsecondary education. Indeed, those students who are high performers and engaged in high school are best positioned to do well in college, regardless of their family
condition, parents financial position, or their future plans” (Florida Department of Education, 2005).

Previous academic experiences typically include the type of previous institutes attended (Private/ Government), the locality in which the students were born and studied (urban/rural/slums), personal factors such as the relationships (with teachers, parents, siblings, friends and significant others), bonding, sense of belongingness and opinions about teaching and learning and perceptions about the relevance of curriculum. The quality of relationships with teachers and peers also form an important part of the previous academic experiences. Previous academic experiences give a complete list of educational experiences that have been experienced by a student till a point of time in life. Who students are, what they do prior to starting their education- primary, secondary or higher secondary, and where and with what mindset they begin higher education can all make a difference in their involvement with education and on their achievement motivation as well.

**5.7.2.2 Achievement Motivation**

Achievement motivation is a widely researched topic in both the fields of psychology and education. It is an acquired outlook that strives for achieving success in competition with others. The excellence standards are set by the individual himself. Achievement motivation is thus an urge to master challenges and reach a high standard of excellence.

Harter and Connell (1984) defined achievement motivations as “the level of one’s motivation to engage in achievement behaviors, based on the interaction of such parameters as need for achievement, expectancy of success, and the incentive value of success. Our construct of motivational orientation refers to the type of motivational stance which the child adopts toward classroom learning. Thus, one may engage in schoolwork for intrinsic reasons, because work is challenging, enjoyable, and piques one’s curiosity, or alternatively, one may engage in schoolwork for extrinsic reasons, either to obtain external approval or because the educational system requires it”. Sunita Sharma (1998) while elucidating the definition of achievement motivation said that it refers to “the tendency to strive for success or the attainment of a desired end”.
Heckhausen (1967) pointed out that achievement motivation can be defined as “the striving to increase or to keep as high as possible, one’s own capabilities in all activities in which a standard of excellence is thought to apply and where the execution of such activities can, therefore either succeed or fail”.

Thus it can be said that achievement motivation is based on achieving success and attaining the aspirations in life. Achievement goals can affect the performance of the task by a person. It represents a need to show case proficiency and skill (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997). McClelland (1976), a renowned psychologist in his path breaking book ‘The Achievement Motive’ states “the characteristics and attitudes that achievement motivated people have in common

- The capacity to set high personal but obtainable goals
- The concern for personal achievement rather than rewards of success, and
- The desire for job relevant feedback rather than for attitudinal feedback”

The presence of high achievement motivation in students is positively related to their performance as well as real involvement with the educational process. It is an “important issue for psychologists and individuals in the field of education because it has been correlated with academic self-concept (Marsh & Ayotte, 2003), academic self-efficacy (Bong & Skaalvik, 2003), personality traits (Mandel & Marcus, 1988), developmental level (Guay, Marsh, & Boivin, 2003), and gender differences (Mandel & Marcus, 1988). Achievement motivation is considered a prerequisite for success, not only in academics, but also in sports- and job related situations. In academic settings, the interest in motivation is partly inspired by the notion that students' motivation, operationalized, e.g., as their competency beliefs and value beliefs, could be more malleable than their cognitive ability, and as such could prove to be a potential lead for the educational system for improving learning and achievement processes in students” (e.g., Spinath, Spinath, Harlaar, & Plomin, 2006).

5.7.2.3 Lifestyle

“The term was originally used by Austrian psychologist Alfred Adler. It refers to a combination of determining tangible or intangible factors. Tangible factors relate specifically to demographic variables, i.e. an individual’s demographic profile,
whereas intangible factors concern the psychological aspects of an individual such as personal values, preferences, and outlooks” (Online Etymology Dictionary, 2014).

“Lifestyle can also be defined as a way of living of individuals, families (households), and societies, which they manifest in coping with their physical, psychological, social, and economic environments on a day-to-day basis. Lifestyle is expressed in work and leisure behavior patterns and activities, attitudes, interests, opinions, values, and allocation of income. It also reflects people's self image or self concept; the way they see themselves and believe they are seen by others. It is a composite of motivations, needs, and wants and is influenced by factors such as culture, family, reference groups and social class” (BusinessDictionary.com, 2014).

“A good performance and a high student engagement maybe a testimony and a record of students’ good lifestyle. There is a consensus among various studies that the way of life, conduct of life and academic behaviours- that are formed at a young age- play a significant role in the development of favourable or unfavourable life trends in students. Better understanding of the areas of certain lifestyle elements along with family characteristics (such as age, education level, habits of the parents, family atmosphere, family structure) and exploration of relationships between lifestyle and family parameters (especially in the area of leisure and exercise, but in the same time observing other lifestyle elements) can help in improving the lifestyle characteristics with a direct effect on student engagement”.

5.7.2.4 Perceived Relevance of the Curriculum

Perceived relevance of the curriculum refers to the perceptions about the “curricular contents and related opportunities that provide real-world learning opportunities that are interesting and relevant to future aspirations” of the students. Positive perceptions about the relevance of the curriculum contribute to feelings of belongingness in the academic sphere and in turn promote student engagement.

Factors that affect perceived relevance of the curriculum include providing “guidance and support with assessment, useful feedback, a dedicated physical space, opt-out co-curricular activities and staff-organised social events, curriculum design
and content, assessment, structure of teaching and delivery, and interaction with academics (Thomas, 2012)

5.7.3 Institutional Variables

5.7.3.1 Type of Institute

The type of institute in higher education refers to colleges, polytechnic, universities (Public/ Private, Government/ Non-government, Aided/ Self-financed, Urban/ Rural, Local/ International, etc.) and specialized schools or institutes (Art Schools, Design Schools, Vocational Schools etc.). Present study is confined to higher education in public and private universities.

5.7.3.2 Infrastructural Support

Infrastructural support refers to the availability of updated and good quality infrastructure to provide the physical structures that are required for an institute to function. Quality of facilities is not only related to age of the building but also to its condition, with good facility management being able to extend the life cycle of a building (Ministry of Science and Technology, 2010).

An effective infrastructural support “is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. The infrastructure consists of not only the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression system but also furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking” (Educational Encyclopedia, 2014).

“Creating an infrastructure for learning is a far-reaching project that requires the participation and collaboration of individuals from all disciplines and types of institutions across the entire spectrum of education. It also requires education, business, and government as partners. And it takes leadership and a commitment to a shared understanding of its importance to transforming education. An infrastructure
for learning unleashes new ways of capturing and sharing knowledge based on multimedia that integrate text, still and moving images, audio, and applications that run on a variety of devices. It enables seamless integration of in-school and out-of-school learning” (US Department of Education, 2014).

“The influence of the physical, built environment is often subtle, sustained, and quiet difficult to measure with precision. Infrastructure facilities are only a piece of the education reform puzzle, but they may be a more important piece than what has been understood in the past” (10th Five Year Plan).

5.7.3.3 Organisational Culture and Ambience

“Organizational culture is postulated to be one of the greatest theoretical levers required for understanding organizations” (Delobbe et al., 2002). Culture can be measured from a values or a norms perspective.

“Organizational culture is the behavior of humans within an organization and the meaning that people attach to those behaviors. Culture includes the organization's vision, values, norms, systems, symbols, language, assumptions, beliefs, and habits. Organizational culture represents the collective values, beliefs and principles of organizational members and is a product of such factors as history, product, market, technology, and strategy, type of employees, management style, and national culture” (Needle, 2004). Ambience is another word for atmosphere in the sense of the mood a place or setting it has. It refers to the environment and all that adds to the sensory experiences e.g. lighting, smell, comfort level, etc. (Merriam-Webster, 2014).

5.7.3.4 Modes of Curriculum Transactions

Curriculum transactions are the effective and desired implementation of the curriculum contents on the basis of set aims and objectives. Curriculum transactions incorporate effectual planning for providing learning experiences and the modes in which the curriculum is transacted. Hence, it includes design, transaction and evaluation. “It incorporates effective planning for providing learning experiences to its learners, organization of planning, administration/implementation of the organized planning and evaluation of the implementations by the implementer and the experts in the relevant field” (Swamy, 2013).
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Modes of curriculum transactions pertain to the channels adopted for providing learning experiences to trainees. These act as the real 'links' between the expectations placed on a teacher education programme on the one hand, and on the other, the process of enabling teacher trainees to absorb the essentials and actualize these expectations. To put it differently, the modes of curriculum transactions represent an operationalization of the various components of teacher education programmes (NCTE, 2014).

Today’s curriculum is disjointed in its total functions. A curriculum transaction scaffold indicates the direction in which the educational system has to direct the various dimensions of curriculum namely instructive goals, learning outcomes, pedagogical strategies, learning environment and evaluation mechanisms in order to achieve the wholesome enrichment of an individual.

5.8 **RATIONALE OF THE STUDY**

We are living in the times of a converging world and profound global changes. For the first time we are preparing students for a future we cannot clearly describe. In the era of globalization things are changing very fast and so is the education system. Research and mass education is no longer monopoly of the developed world. Education system is one of the parameter for measurement of “Human Development Index”. So every country developed, emerging and developing economies are pursuing their expansionary educational policies and striving hard to extend outreach of education to the masses. Thus on the one hand higher participation in “higher education” is taking place the competitive world is putting up new challenges to the countries exhorting them to bring about qualitative changes

Policy makers of education system in the developing countries like India are required to reconcile the dichotomy of expanding education system catering to the needs of ever increasing number of students due to increased enrolment and within resource constraints. But it is no longer sufficient to measure the standards of education simply through the number of student enrolments and the availability of infrastructural and education resources. There has been a growth of interest in the quality of university education which has led to the implantation of principles and
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practices of “quality assurance” in higher education. The Twelfth Five Year Plan repeatedly emphasizes on a need for qualitative and productive improvement of education standards.

The moot question is whether the high participation in higher education and qualitative improvement has generated interest or involvement of the students. Mere physical and tangible improvements in quality of higher education such as improving the infrastructure, processes, curriculum, instruction, interaction and practice etc. cannot produce efficient and technically expert human resources who are capable of meeting international standards in terms of intellect and professionalism. The actual requirement is for the students to be internally motivated and involved in their study. In other words, it is important that the students are engaged in their study with a mind craving for knowledge. There lies the rationale of the present study.

Engagement with learning is a pre-requisite, as it is engagement that ensures continual interaction and practice. This premise is deceptively simple, perhaps self-evident. It is so intrinsic to the process of education that its presence often goes unnoticed. It is in its absence that it is observed the most. Student engagement is for the most part viewed as among the better indicators of learning and self-development. The more learners spend time in studying or practicing a subject, the more they will in general learn. “Likewise, the more students practice and get feedback on their work, the more adept they become” (Kuh, 2003). “The very act of being engaged also adds to the foundation of skills and dispositions that are essential to live a productive and satisfying life after college. That is, students who are involved in educationally productive activities in college are developing habits of the mind and heart that enlarge their capacity for continuous learning and personal development” (Carini, Kuh and Klein, 2006; Shulman, 2002).

“Higher education is linked to long-term cognitive, social and economic benefits to individuals, benefits that are passed on to future generations, enhancing the quality of life of the families of college-educated persons, the communities in which they live, and the larger society” (Kuh, Cruce, Shoup, Kinzie, Gonyea, 2008). The universities and other higher education institutes are thus faced with the challenge of creating opportunities for success and to provide necessary support to meet these new
goals. Traditionally, the higher education institutes assumed that quality could be
determined by their internal resources, viz., faculty with an impressive set of degrees
and experience detailed at the end of the institute’s admission brochure, number of
books and journals in the library, an ultra-modern campus, and size of the
endowment, etc., or by its definable and assessable outputs, viz., efficient use of
resources, producing uniquely educated, highly satisfied and employable graduates.
But this has not happened. “Critical appraisals undertaken by the government
committees and independent academicians have highlighted the crisis confronting the
system: ‘increasing educated unemployment; weakening of student motivation;
increasing unrest and indiscipline on the campuses; frequent collapse of
administration; deterioration of standards; and above all, the demoralizing effect of
the irrelevance and purposelessness of most of what is being done” (Singh, 2009). In
addition, though India can boast of over 700 universities, it has failed to produce
world class universities like Harvard and Cambridge. According to the London Times
Higher Education - Quacquarelli Symonds (QS) World University rankings (2014),
no Indian university features among the first 100. Ex-Prime Minister of India, Mr.
Manmohan Singh in his address at the 150th Anniversary function of University of
Mumbai, said “Our university system is, in many parts, in a state of disrepair. In
almost half the districts in the country, higher education enrollments are abysmally
low, almost two-third of our universities and 90 per cent of our colleges are rated as
below average on quality parameters...” (Kapur & Mehta, 2007). UGC and other
regulatory authorities have been trying very hard to extirpate the menace of certain
universities which are running courses without any affiliation or recognition and
which are not able to engage the students in accordance with the global standards
mentioned above. There is thus a need for the shift of emphasis from mere
quantitative targets to qualitative initiatives as well, to solve the maladies affecting the
higher education system.

The quality assurance determinations according to the present quality
measuring standards need to take account of how and to what extent students engage
with activities that are likely to lead to productive learning (Coates, 2006). It is for
this reason that student engagement has become an integral part of the conversation
on quality improvement in higher education. Number of international researches have investigated how best to incorporate student-level process factors into quality evaluations (Pascarella, 2001) through the study of student engagement. Student engagement has been widely researched internationally. In the United States, research on student engagement relates to the American National Survey of Student Engagement (NSSE), which focuses on four-year colleges and universities, and the Community College Survey of Student Engagement (CCSSE) which focuses on two-year institutions. (Hu & Kuh, 2002). The Australian equivalent of the NSSE is the Australasian Survey of Student Engagement (AUSSE, Australian Council for Educational Research, 2008), which again has similar foresight and spread. In United Kingdom, the National Student Survey has done extensive research and undertaken various activities on student engagement (Hockings, Cooke, & Bowl, 2007; Hockings, Cooke, Yamashita, McGinty, & Bowl, 2008) (Wilson, 2010).

Almost all the internationally acclaimed educational institutions like Harvard, Cambridge, and Princeton etc. have included student engagement data and scores on their websites. Student engagement, its aims, initiatives within faculties, departments and colleges find a mention in their curriculum. India’s most esteemed institutes like the IIMS, AIIMS, and IITs etc. also employ various student engagement initiatives to involve students in education. Their efforts at updating of their curriculum in accordance with the changing needs, credit accruals on the basis of projects, compulsory trainings and community connect programs etc. are the reflections of student engagement programme. But student engagement as a formal program has not been introduced even in the best of Indian institutes. The empirical evidence available so far on the present state of Indian higher education has put the spotlight on the need for more qualitative improvements in education system to improve student learning and outcomes. There is a requirement to focus on how students in higher education are interacting with their universities with a spotlight on the practices that are most likely to generate productive learning. For this, there is a dire need to conduct empirical studies to assess the present higher education system with regards to its compliance with the various quality indicators with a focus on student engagement. Though the international research literature on higher education has been discussing
student engagement, Indian educational research has been relatively untouched by this concept. The present study will try to fill in this gap through the study of student engagement and its demographic, personal and institutional determinants and to identify in its small way, the issues which require immediate attention for improvement in education. The effort might help in suggesting an improvement model for raising learning outcomes in higher education and to make ‘education more engaging for the students.’

**5.9 STATEMENT OF THE PROBLEM**

STUDENT ENGAGEMENT IN HIGHER EDUCATION: DEMOGRAPHIC, PERSONAL AND INSTITUTIONAL DETERMINANTS

**5.10 OPERATIONAL DEFINITIONS**

- **Higher Education:** In this study, definition of higher education has been adopted from “All India Survey on Higher Education 2015-16” as “education which is obtained after completing 12 years of schooling or equivalent and is of duration of at least nine months (full time) or after completing 10 years of schooling and is of the duration of at least 3 years. The education may be of the nature of General, Vocational, Professional or Technical Education”.

- **Student Engagement:** In the current study student engagement refers the student’s cognitive, behavioural and affective involvement with education. Student’s cognitive involvement was measured through a study of his intellectual engagement in class activities, study management, learning strategies, efforts & learning focus, taking academic challenge, future aspirations and goals. The affective engagement includes the emotional engagement/disengagement, belongingness and valuing of the course, relationship with teachers, peer and other concerned staff, self-belief, failure avoidance and anxiety. The behavioural engagement will include observable actions such as attendance and punctuality, participation in academically challenging activities, time spent in library, type of reference material and resources used for studying as well as preparing assignments or other projects, time spent on assignments, initiating action,
behaviour in class as well as at campus, participation in co-curricular activities and achievement in terms of grades.

Demographic Determinants

The demographic determinants include gender, social class, economic status (family income) and location of residence (urban/rural).

- **Gender**: In this study gender refers to male and females.
- **Locale**: Locale includes the rural and urban background of the students. For the purpose of study urban area is defined as all places with municipality, corporation, cantonment board or notified town area committee and other places with minimum population of 5000. Areas other than urban area are treated as rural areas. The respondents input of locale was taken as final for the purpose of this study.
- **Economic Status**: The term economic status in the current study refers to status of the students on the basis of family income. In this study, family income of the students is divided into four sub groups, less than 2 lacs; 2-6 lacs, 6-10 lacs and 10 lacs and above. Students whose annual family income was less than 2 lacs were classified as poor; whose family income was between 2-6 lacs as low income group, with income of 6-10 lacs, students were categorized into middle income group and those having more than 10 lacs were grouped in high income group.
- **Social Status**: Social status in this study refers to the caste based division that is followed in Indian society. The four main divisions- General, Schedule Tribe (ST), Scheduled Caste (SC) and Other Backward Classes (OBC) as defined in the relevant provisions of Indian Constitution were taken.

Personal Variables

Personal variable refers to a variable that relates or belongs to a single or particular person rather than to a group or an organization. So a personal variable is a unique characteristic that varies from one individual to another. Four personal variables were included in the present study.
• **Previous Academic Experiences:** In this study, previous academic experiences refer to the educational experiences of the students in their previous institutes i.e. school and/or college before enrolment in universities and educational institutions imparting higher education.

• **Achievement Motivation:** Achievement motivation is a drive which can be aroused by inducing a situation of ‘ego involvement’ or achievement orientation. It is a desire to attain a high standard of excellence and accomplish unique objectives. High achievement motive includes a self-imposed desire for excellence, a need for accomplishing something worthwhile and unique.

• **Lifestyle:** Lifestyle includes patterns of social relations, consumption preferences, entertainment preferences, dressing style, etc. It reflects a person’s views, habits, and etiquettes and the way of life which has direct influence on the type of services that person gives or requires.

• **Perceived Relevance of the Curriculum:** Perceived relevance of the curriculum refers to the student’s perceptions about the syllabus and related opportunities that provide real-world learning opportunities to them and are interesting and relevant to their future aspirations. It includes the overall satisfaction of the student with the curriculum.

**Institutional Variables**

Institutional variables refer to factors which are exogenous in nature from the viewpoint of students and are within the ambient of the universities or educational institutions.

• **Education Stream:** Educational stream will include science/social science and professional/basic courses.

• **Infrastructural Support:** Infrastructural support in universities includes (i) physical infrastructure viz. comfortable, safe, secure, accessible, well illuminated, well ventilated class rooms, conference rooms, sports complex/grounds; canteen and recreation facilities; restroom facilities with amenities like clean water, clean toilets; parking facility, (ii) well equipped main library and subject specific departmental library, (iii) availability of
technological support such as Wi-Fi access, computers, on-line learning support; and (iv) availability of other facilities such as parking, first-aid and health facilities.

- **Organisational Culture and Ambience:** In the present study organisational culture and ambience include physical environment comprising clean and pleasant campus and well equipped and maintained class rooms; healthy academic environment based on warm teacher taught relations, mutual respect between the teachers and student, encouragement to innovative ideas and thinking; conducive emotional environment where students are supportive of each other, mutual understanding between the teachers and students, and absence of any bias and discrimination towards students; cooperative working environment based on the principle of accountability and responsibility and involvement of students in policy formulation.

- **Modes of Curriculum Transactions:** Modes of curriculum transactions in his study refer to the various channels adopted for imparting education and transmitting learning experiences to the students. This includes methods of teaching, autonomy and freedom of expression to students, academic challenges for students, seminars/conferences, emphasis on practical work, classroom environment, teacher-taught relationship, quality of assignments and evaluation techniques, etc.

### 5.11 DELIMITATIONS OF THE STUDY

The study was delimited to the Universities located in Punjab and Chandigarh. Two public and two private universities were selected.

### 5.12 OBJECTIVES OF THE STUDY

1. To identify students in higher education with high, average and low level of student engagement.

2. To examine student engagement in relation to demographic variables, such as gender, locale and social and economic class.

3. To find out the difference in student engagement in public and private universities.

4. To find difference in student engagement in science and social science courses.
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5. To compare students in professional and non-professional courses for their student engagement.

6. To ascertain the student engagement in relation to institutional variables namely infrastructural support, organisational culture and ambience and modes of curriculum transactions.

7. To study the student engagement in relation to personal variables, namely, previous academic experiences, achievement motivation, life styles and perceived relevance of the curriculum.

8. To see the difference in predictive efficiency of personal and institutional variables towards student engagement.

5.13 HYPOTHESIS OF THE STUDY

I There exists no significant difference in student engagement with regards to demographic variables i.e.

(i) Gender (Male/Female)
(ii) Locale (Urban/Rural)
(iii) Economic class (High, Middle and Low economic group)
(iv) Social class (General, ST/SC, OBC)

II There exists no significant difference in student engagement between students of public and private universities.

III No significant differences exist in the engagement of students of science and social science streams.

IV Students in professional courses do not differ significantly from students in non-professional courses for their engagement in higher education.

V No significant relationship exists between student engagement and institutional variables, namely,

(i) Modes of curriculum transaction.
(ii) Organisational culture and ambience
(iii) Infrastructural support in the universities

VI There exists no significant relationship between student engagement and personal variables of students, namely,
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(i) Previous academic experiences at school or college
(ii) Achievement Motivation
(iii) Lifestyle
(iv) Perceived relevance of the curriculum

Both the institutional and personal variables contribute equally in predicting student engagement in higher education.

5.14 DESIGN OF THE STUDY

Present study is an attempt to examine Student Engagement in higher education. Student Engagement was studied at three levels - cognitive, affective and behavioral. For an in-depth analysis of Student Engagement, determinants of Student Engagement were investigated. These determinants were broadly demarcated into demographic, personal and institutional variables. Demographic variables constituted gender, locale, social/economic class and family income. Institutional variables included organizational culture, modes of curriculum transactions and infrastructural support whereas personal variables consisted of previous academic experiences, achievement motivation and lifestyle of the students and perceived relevance of the curriculum.

Descriptive survey method was employed to conduct this study. To examine difference in Student Engagement of male and female students as well as between students belonging to rural and urban areas, t-test was employed. One way ANOVA was used to find difference in Student Engagement on the basis of Social Class (SC/ST, OBC, General) and Economic Class (Low, Middle and High Income Group). The relationship between the three dimensions of Student Engagement, namely, cognitive, affective and behavioral engagement and also overall engagement with institutional and personal variables of students was studied by computing Product Moment Coefficient of Correlation. Thereafter, singular and conjoint predictive efficiency of institutional and personal variables for determining Student Engagement in higher education was found out through regression models.

5.15 SAMPLE

Kerlinger (1978) opined “People mostly through their limited experience, try to come to certain conclusions about other people and about their environment. In
order to come to such conclusions, they must sample the experiences of other people.”

For any researcher, the preliminary job is to define the universe and take a representative sample. Kerlinger defines “Sampling is taking any portion of population or universe as representative of that population or universe”. He further elaborates “In research a ‘representative sample’ means that the sample has approximately the characteristics of population relevant to the research in question.”

The Law of Statistical Regularity states that a moderately large number of items chosen at random from a large group are almost sure on an average to possess the characteristics of the large group.

The present study took care of these observations. For the study the students enrolled in the public and private universities for higher education in Punjab and Chandigarh were taken as ‘the universe.’ Multi stage simple random sampling technique was used to select the intended sample for the present study. First of all, two public and private universities were selected randomly out of a list of 19 universities which included four public universities (one central and three state universities) and 15 private universities from Chandigarh and Punjab. The universities imparting education in specializations like health, agriculture, ayurvedic science, religious studies etc. were excluded from the list. From the selected universities, a general list of faculties was prepared covering professional, basic courses and language departments. It must be mentioned here that only a few courses were common between public and private universities. While public universities still continue with the traditional courses, the private universities have more professional courses. In cases where there were certain parallel basic courses between the public and private universities, the enrollment rate was very low. For instance, M.A. English had a good enrollment number in Panjab and Punjabi University; whereas the same course had only two students enrolled in Rayat and Bahra University (these students were not present on any of the many visits of the researcher for the purpose of data collection) and this course was not there in Chandigarh University. In addition, even in the same university type (public or private) most of the courses had different terminology and specializations. For this reason a list of courses per university had to be drawn separately. The courses for data collection were selected randomly from this list. Care was taken to repeat the data collection for a particular course if data from a
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previous university had already been collected for that course. For example, Panjab University was the first university from which data was collected. In random sampling M.A. Education was selected for data collection. The same course was running only in Punjabi University. Chandigarh University and Rayat and Bahra University did not have a post-graduate course in Education. So for comparisons M.A. Education was purposively selected from the list of courses in Punjabi University. 14 courses from Panjab University, 10 courses from Punjabi University, 10 courses from Chandigarh University and 7 courses from Rayat and Bahra University were selected. To have a wider perspective of Student Engagement, the courses selected were a mix of faculties from science and social sciences, from professional to basic courses viz. MBA, BE, M.Ed, MCA, M.A. Journalism, M. Pharma, M.Sc. Bio- Technology, B. Tech, UIBPS, M Sc. Zoology, M.Sc. Botany, M.Sc. Microbiology, M.Sc. Physics, M.A. Education, M.A. Political Science, M.A. History, M.A. English. From the selected courses in the universities, the students were selected on the basis of availability on the date of study/survey. Students from graduate and post-graduate courses in second semester were selected. This was to allow for their acclimatization with university life and climate and to ensure that experienced and mature responses were received from them. To have a fairly large sample, 1048 students were contacted from these selected courses. The data was obtained from these students on Student Engagement Scale. As the data was required for institutional as well as personal variables; a total of 8 questionnaires/scales were administered on these students.

In the end, data from only those participants were retained who responded on all the items of all of the eight questionnaires/scales used for data collection. In this process, 496 students had to be dropped because many of them did not complete the tools and others responded to less than eight questionnaires/scales. There were 552 students who completed all the items of the eight tools. Thus, the final sample of the study was of 552 students comprising 269 students from public universities and 283 from private universities. An overview of the sample of 552 students covered under the study based on the demographic and socio-economic status of the students is depicted hereunder:
5.16 DATA COLLECTION TOOLS AND TECHNIQUES

The following tools and techniques were used for studying/ testing the hypothesis of the present study:

I. To study engagement of the students in higher education, ‘Student Engagement Scale’ was constructed by the researcher. The format devised covered the externally observable indicators reflected in the behaviour of the students through Behavioural Engagement and the internal indicators comprising Cognitive Engagement and Affective Engagement.

II. A student demographic profile sheet was prepared to know about background variables of participants such as gender, locale, their social and economic status and the course which they were pursuing in the university.

III. To assess the Institutional Determinants following questionnaires/scales were constructed by the researcher-

- Scale for ‘Infrastructural Support’ was developed by the researcher to know about the physical availability and quality of infrastructural facilities in higher education institutions.

- Scale for ‘Organizational Culture and Ambience’ was constructed to study the values, beliefs and norms of behaviour within the higher education institution under study.

- Rating scale on ‘Modes of Curriculum Transactions’ was developed by the researcher to find out the methods of teaching, teacher-taught relationship and procedures of evaluation prevalent in institutions.

IV. Following tools were constructed to study the Personal Variables of students in higher education:

- Previous academic experiences scale was constructed by the researcher to know about the human, social and cultural capital with which students are equipped before pursuing higher education.

- Achievement motivation scale was constructed to know about the disposition of students to strive for success in competition with others.
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- Lifestyle scale was constructed by the researcher to know about the student’s attitudes, values and world view and their impact on academic behaviour and Student Engagement.

- Scale for perceived relevance of the curriculum was constructed by the researcher to study the perceptions of the students about the curricular contents and related opportunities that provide real-world opportunities that are interesting and relevant to the future aspirations of the students.

5.17 **PROCEDURE FOR DATA COLLECTION**

The study covered two public and two private universities. For data collection in the private universities the researcher obtained permission of the vice-chancellor and in the public universities permission of the respective heads of the departments was obtained. As data was to be collected in eight questionnaires- one the basic ‘student engagement scale’, seven relating to institutional and personal determinants of student engagement and one check-list pertaining to ‘infrastructure support’, the investigator has to visit three universities Punjabi University, Chandigarh university and Rayat and Bahra University five times each as it was not possible to cover all the departments in the universities in one day. During the first visit permission from the competent authorities was obtained and informal interaction with the concerned heads of the department to be covered by study was undertaken explaining the objective of collection of data and assuring secrecy of the data being collected except for use in the research work. During the second and third visit data in four questionnaires viz. ‘Student Engagement Scale’, ‘Scale for Organisation Culture and Ambience’, ‘Rating Scale on Modes of Curriculum Transactions’ and ‘Scale for Infrastructural Support’ was obtained from the selected departments. During the fourth and fifth visit same departments were visited again and data obtained in four remaining questionnaires viz. ‘Previous Academic Experience Scale, ‘Achievement Motivation Scale’, ‘Lifestyle Scale’ and “perceived Relevance of Curriculum’. In Panjab University, the investigator has more liberty to collect data from the departments selected at random. However, each department was visited twice for collecting data in four questionnaires during first visit and other four questionnaires during the second visit.
The issue of confidentiality and dissemination of information was discussed with the participants before the questionnaires were administered. Participants were made aware that participation in the study was not mandatory, and that they were free to withdraw from participating should they found it necessary.

5.18 STATISTICAL TECHNIQUES USED

For analysis and interpretation of sample data appropriate statistical methods was used to make it understandable as per the objectives of the study as under:

- Descriptive statistical techniques viz. arithmetic mean; standard deviation, the measures of dispersion; skewness and kurtosis was used to check normalcy and homogeneity of the data; and for analysis pertaining to significance of difference in student engagement with respect to demographic variables of students viz: gender, locale, social as well as economic. The relationship of student engagement with institutional variables viz. type of institution (public/private), academic stream (science/ social science), course of study (professional/basic) has also been discussed by using descriptive techniques.
- To determine significance of differences in means amongst the variables under study, t-ratios/ ANOVA values were computed.
- For analysing relationship between student engagement and institutional and personal variables viz. Previous Academic Experiences at School and College, Infrastructural Support, Organisational Culture and Ambience, Modes of Curriculum Transactions, Achievement Motivation, Perceived Relevance of the Curriculum and Lifestyle have been calculated by using Karl Pearson’s Product Moment Coefficient of Correlation.
- To identify the institutional and personal variables of the students which account for relatively higher variance in the criterion variable student engagement in higher education step-wise regression technique was employed.

5.19 FINDINGS

5.19.1 Demographic Variables

The findings depicting differences in overall student engagement and its dimensions with respect to demographic and institutional variables based on descriptive analysis are summed up in the following paragraphs:
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- The low engagement group had 28.99% students, 38.77% of the students form part of average engagement group and 32.24% students fall in high engagement group.
- Gender-based analysis showed significant differences between male and female students. Student engagement of female students was higher as compared to male students and the difference between the means was significant at p< .01. Mean score of three dimensions viz. cognitive engagement, behavioural engagement and affective engagement showed a similar pattern and the difference in mean scores of male and female students was also significant at p< .01 with females showing higher engagement than males.
- Locale based analysis revealed a non-significant difference in students from urban and rural areas for cognitive engagement, behavioural engagement, affective engagement as well as for overall engagement. However a detailed analysis of the data revealed that 61.41% students covered by sample belong to urban area. That might be indicative that higher education opportunities were appropriated more by the students from urban background.
- Difference in engagement level of the students on the basis of family income was observed to be insignificant. Dimension-wise cognitive engagement, behavioural engagement and affective engagement scores of students from poor, low income, middle income and high income families also revealed insignificant difference. On a detailed study of the family income it was observed that out of 522 student who responded to the background variable, family income of 437 students (83.71%) of the students was up to six lacs which falls in the poor and low income category. This means that majority of the students in both public and private universities come from economically average backgrounds.
- Difference in engagement level of the students for cognitive engagement, behavioural engagement, affective engagement and overall student engagement on the basis of social status which includes four caste divisions i.e. General, SC, ST, OBC, was observed to be insignificant. Frequency distribution of sample data based on social status revealed that out of 522
students who responded to the background variable, 376 students (72%) of the students were in General Category as against 28% getting higher education in all the other three categories combined (i.e. SC/ST/OBC). That in nutshell describes social inequalities in enrolment of students belonging to different castes.

- The analysis on the basis of type of university (public or private) revealed insignificant difference in the level of student engagement except for behavioural engagement. Comparison of engagement level between all three dimensions of student engagement with respect to public and private universities revealed that difference in means of cognitive and affective engagement in public and private universities was insignificant but difference in behavioural engagement between the universities was significant at .05 level. The behavioural engagement of students at private universities was higher than that of public universities.

- Academic stream based analysis of the engagement level of the students of different streams viz. science and social sciences revealed that overall difference in mean score and also mean score dimension-wise for cognitive engagement and affective engagement in science was lower than the mean score of student engagement in social sciences. It was significant at .01 level. Difference in mean of behavioural engagement was significant at .05 level. Thus the study revealed that students opting for social science were more engaged in higher education in comparison to their counterparts in science subjects.

- The analysis of students opting professional courses and basic courses revealed that mean scores of overall student engagement for professionals courses was lower than basic courses and was significant (t value 2.57, p< .01). This is indicative of comparatively higher engagement level of students pursuing basic courses. Dimension-wise also mean difference of cognitive engagement and affective engagement showed a similar pattern as difference in mean scores were significant at p <.01. Mean difference of behavioural engagement was insignificant.
5.19.2 Institutional and Personal Variables- Correlation Analysis

The findings of relationship between student engagement and personal and institutional variables has been summed up in the following paragraphs:

- Student engagement is positively related to organisational culture and ambience. This is demonstrated by the coefficient of correlation between Student Engagement and five dimensions of ‘Organisational Culture and Ambience’ which was also positive and significant at .01 level of confidence indicative of direct relationship between them. However, two dimensions viz. ‘academic environment’ and ‘emotional environment’ have relatively higher coefficient of correlation. This indicates comparatively higher impact of these sub-variables on student engagement as compared to other dimensions.

- Significant positive relationships exist between Student Engagement and ‘Modes of Curriculum Transactions’. The coefficient of correlation between student engagement and three dimensions of Modes of Curriculum Transactions’ which included methods of teaching, teacher-taught relationship and evaluation was positive and significant at .01 level of confidence. The coefficient of correlation for ‘teacher taught relationship’ was highest, which might reveal relative importance of personal relations between the teacher and the learner over other dimensions of modes of curriculum transactions. The importance of methods of teaching with second highest value shows that improved teaching methods that encompass interactive teaching sessions in a language that can be understood by students and illustrated by suitable examples; imparting research based updated knowledge supplemented through workshops, study tours, seminars, conferences, proper time management between theory and practical tests wherever feasible, etc could improve student engagement to a large extent. As regards teacher taught relationship, personal touch during teaching sessions, encouraging academic discussions even after classroom lectures during mutually convenient time and non-discrimination amongst the students can have positive impact on student engagement.
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- The relationship between student engagement and infrastructural support was significant at .01 level. The positive coefficient of correlation indicates that student engagement and infrastructural support were closely associated. The coefficients of correlations between the dimensions of infrastructural support and student engagement were also positive and significant at .01 level. Between the six dimensions, the coefficient of correlation between department library and overall technological support and student engagement was the highest. Thus, modern well equipped library with latest books, journals and research work; and technological improvement in educational environment might have a higher impact on student engagement as compared to other dimensions.

- Student engagement and ‘previous academic experiences at school’ and student engagement & ‘previous academic experiences at college’ also shared a positively significant relationship. The positive coefficient of correlation indicates that basic education at the previous school and/or college has a direct positive impact on student engagement for a student in higher education. The coefficient of correlation between various dimensions of PAES and PAEC & student engagement except peer relations were positive and relevant at.01 level of significance.

- Student engagement is positively correlated to achievement motivation. The positive coefficient of correlation elucidates that higher achievement motivation positively impacts student engagement in higher education.

- Significant positive relationship exists between student engagement and lifestyle. The positive coefficient of correlation indicates lifestyle of students significantly affects their engagement.

- The relationship between student engagement and ‘perceived relevance of the curriculum’ was significant. The positive and significant coefficient of correlation depicts that effective curriculum at university level might have positive impact on student engagement.

An overview of the above discussion leads to infer that institutional variables and personal variables of the students viz. (i) Organisational Culture and Ambience, (ii) Modes of Curriculum Transactions,(iii) Infrastructural Support, (iv) Previous Academic Experiences at school and college level (v)
Achievement Motivation (vi) Perceived Relevance of the Curriculum and (vii) Lifestyle were positively and significantly related to student engagement in higher education.

5.19.3 Findings of Regression Analysis

The results of above models with respect to the predictive efficiency of personal variables and institutional determinants for student engagement in higher education may be summarized as below:

- Step-wise multiple regression analysis suggests computes regression coefficients number of times, first by removing the weakest correlated variables and each time adding step by step one more independent variable. The three variables, namely previous academic experiences at school, previous academic experiences at college and infrastructural support which had shown significant correlations individually with student engagement in higher education, turned up as weak predictors and were dropped as predictors by SPSS.

- Multiple step-wise regression analysis was run to predict student engagement in higher education. Out of the eight determinants of student engagement, five were found to significantly predict student engagement starting with modes of curriculum transactions which correlated to the highest degree with student engagement. Subsequently other predictors were added one by one in chronological order of degree of correlation in descending order.

- Stepwise multi regression analysis revealed that variance in student engagement due to five predictors was as under:
  Model A MC (i) Modes of curriculum transactions accounts for 19.5% of variation in student engagement. The variable was statistically significant for predicting student engagement.
  Model A (ii) LS: 6.5% of variation in student engagement is predicted by the second independent variable lifestyle.
  Model A (iii) AM: 2.7% variance in student engagement might be attributed to the third independent variable achievement motivation.
  Model A OC (iv) 1.5% variance in student engagement is predicted due to fourth independent variable organisational culture and ambience.
Model A PROC (v) 0.9% variance in student engagement can be predicted due to fifth independent variable perceived relevance of the curriculum.

- The R square of the last step was .311 which reveals that 31.1% of variation in student engagement can be predicted with the help of five variables. Institutional variables which include Modes of Curriculum Transactions and Organisational Culture and Ambience can predict 21% of the variation in student engagement. The personal determinants which include student’s lifestyle, achievement motivation and perceived relevance of the curriculum can predict 10.1% of variation in student engagement.

- The coefficient of non-determination ($K^2 = 1 - R^2$) came out to be 68.9% (100-31.1). It means that 58.9% of the variance in criterion variable of student engagement in higher education is unexplained in the present study as this amount of variance may be accounted by those variables that are not under the scope of this study.

5.20 RECOMMENDATIONS

The present study provided a real insight into the world of higher education through the review of literature, development of various tools and questionnaires, pilot testing, observation, discussions with experts and formal and informal interaction with students, teachers and researchers. On the basis of interpretation of results of the present study, the investigator is inclined to make a few recommendations:

- The study observed the importance of curriculum transactions on student involvement and performance. The methods used in teaching and teacher-taught relationship directly affect the interest level of students. So there is a dire need for the teachers to be conscious about the teaching methods they employ while teaching and to ensure that they make certain efforts to create and maintain the teacher-student bond. Teaching should emphasize students’ participants. This is so because student interest and engagement appears to be less influenced by larger campus activities and more by what takes place in the classroom and with faculty members. The teachers should be provided with additional training in student success initiatives and classroom management (Brandi R.K. Atnip, 2015) so that they can promote positive learning attitudes in students (Skinner, Furrer, Marchand and Kindermann, 2008). There is a
need for the teacher to be engaged with students and their learning as it is not enough to just expect them to be engaged.

- There is a need to use cooperative and collaborative learning techniques, which engage students in learning experiences, emphasise effectively on higher-order cognitive activities, enrich their value educational experiences and enhance their social skills. These faculty practices can help to strengthen teacher-student bond. This calls for ongoing in-service teacher programs which impart research based updated teaching skill based knowledge to teachers. This will help them to learn to effectively supplement traditional lecture methods with more innovative teaching techniques and provide interactive teaching sessions in a language understandable by students.

- There are a number of personal factors which influence student learning. Lifestyle is one of them. Lifestyle of the students is not formed in a day but is the result of sustained behaviour of an individual. An inclination to a particular lifestyle starts from childhood and gets nourished during the formative years and finally begins to take shape by the time a student enters higher education. As the years spent in the portals of higher education settle and harden the lifestyle of the student which directly affects his grades and engagement, so it is important for parents, teachers and institutions to ensure that students follow a good life-style. So it should be ensured that students practice punctuality, have well defined goals, self study habits, make right choices for developing relationship with peers, have good personal habits, learn judicious allocation of time between academic pursuits/social media/entertainment, etc. As lifestyle and student engagement share a positive and significant relationship in this study, it is recommended that education strategy at primary and school level might be framed that encompasses a positive lifestyle at the formative age so that the young adults at higher education institution have positive life style that helps them to attain their educational and life objectives.

- Another personal factor covered in the present study is achievement motivation. It is an important issue for psychologists and individuals in the field of education because it has been correlated with academic self-concept (Marsh and Ayotte, 2003), academic self-efficacy (Bong and Skaalvik, 2003),

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personality traits (Mandel and Marcus, 1988), developmental level (Guay, Marsh, and Boivin, 2003), gender differences (Mandel and Marcus, 1988), interpersonal relations Martin and Downson (2009) and sense of belonging (Selim, 2014). Achievement motivation is inherent in students. Every student wants to excel. But there is a need to ignite that spirit, a kind of pump priming activity. The higher institutions might deploy the services of psychologists, arrange lectures on human psychology, self motivation, leadership development, etc which is likely to improve self confidence, self motivation in the students and might positively impact achievement motivation and finally student engagement.

- The perceived relevance of curriculum was also studied under the personal factors and was found to be significant. One way of making students perceive curriculum positively is by involving student representatives in the curriculum devising committee in the educational institutes. The universities also need to take care of students’ aspirations while deciding the curriculum. There is a requirement to undertake research on the educational trends world over, factor technological changes and decide on a curriculum that leaves scope for expression and creativity in students.

- The higher student engagement levels of females in the present study are supported by studies such as Frontier (2007), Lam et all (2012) Teoh, Abdullah, Roslan and Daud (2013). The results are not surprising and reveal that sustained efforts to promote women empowerment by raising the literacy ratio amongst women is likely to be reflected in higher engagement of females over their male counterparts in higher educational institutions. The study recommends more women centric policies for their empowerment especially in the states where gender based gaps in literacy ratio are higher than the All India average.

- Political intent is at the highest level in policy making and to improve the quality of higher education in the country. Thus, the shift from quantity to quality education is the need of the hour and should be primarily focused in our government policies. This shift in perspective from quantity to quality would mean a revisiting of the basic principles underlying the policy formulations in higher education and re-interpreting them. Policy makers as
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well as researchers both will have to collectively work for this. The investigator believes that qualitative improvement in higher education would improve engagement level of the students.

5.21 SUGGESTIONS FOR FURTHER RESEARCH

On the basis of the experiences gained during the pursuit of the present piece of research, the following suggestions are given for further investigations in this area:

- Engagement is a complex concept and includes many factors that interact in multiple ways to enhance engagement or trigger disengagement. Due to time constraint, only a few indicators could be studied. But to properly understand this concept, other interactions need to be taken into account.

- Student engagement involves many actors: certainly students, teachers, administrators – but also locations, structures, cultures, technologies, buildings and equipment. In addition, there are many other areas such as non-institutional factors which impact student engagement such as health, family care, community responsibility, technology especially on-line learning as a collaborative project between students and teachers, etc; to which the present research could not give adequate attention which can be studied further by investigators in the field of education.

- Regression analysis (in the analysis of data) could reveal 31.1% of variation in student engagement due to five predictors. The predictable variation in student engagement might appear to be moderate variation but the concept of student engagement is very complex and dependent upon multitude of psychological and real variables, institutional and non-institutional variables. So the predictable variation in student engagement due to the factors taken into consideration for the present study is considered satisfactory. But for a clearer understanding of student engagement and the various influences that affect it, further studies can be taken on the subject.

- During the analysis of student engagement many ‘unpredicted findings’ about student engagement were encountered which were mainly based on demographic variables i.e the findings which could not anticipated at the time of framing objectives and hypotheses of the study. One such finding was based on the demographic variable of locale. Out of 495 students who stated their locale status, 304 marked the option of urban area (61.41%). This
indicates that higher education opportunities were appropriated more by the students with urban background. The difference becomes more glaring if we corroborate it with the fact that as per census 2011, 68.84% of the population lived in rural areas and only 31.16% of the population was inhabitated in urban areas. Factoring the above information, there appears to be a glaring difference in availing the higher education opportunities by students residing in urban areas. This area could become an area for further research.

- Another unpredicted finding was regarding the demographic variable—family income. 522 of the students covered in the sample stated their family income. 437 (83.71%) students marked the option that categorized them into poor or low family income group with meagre resources to finance higher education. That might indicate that majority of students were having very low or low family income. That might be reason that public universities find stiff resistance when efforts are made to raise resources through fee hike. This might also be an issue before policy decisions might be considered for making higher education a self-financing activity in a developing country like India. More research in this area might throw light on this unpredicted finding.

- Out of 522 students who stated their caste in the background variable in the questionnaire on ‘student engagement scale, 376 students (72%) belonged to General Category against 146 (28%) of the students who were part of the other three categories combined (i.e. SC/ST/OBC) revealing in nutshell social inequalities in enrolment of students belonging to different castes.

- Our study is limited to four universities three in Punjab and one in UT Chandigarh which have literacy ratio higher than All India Average. There is a need to replicate this study in those states where literacy rate is less than All India Average.