CHAPTER ONE
INTRODUCTION

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1.0 Introduction

*It is not what you do for your children, but what you have taught them to do for themselves that will make them successful human beings.*

Ann Landers

Leading success by an individual in any field or occupation depends not only upon the knowledge, intellect or talent but it is also affected by certain skills or abilities like communication power, problem solving and decision-making abilities, team-work and leadership skills, empathy, management skills, self awareness, interpersonal skills, negotiation skills, assertiveness, ability to coping skills to deal with stress and emotions, and many more. The group of such skills together is known as life skills as they contribute most to live a quality, healthy and happy life. They are those soft skills that basically rest in the individual. Once mastered, life skills help a person in every facet and every sphere of his life. For example, a person who is assertive will be a better and effective communicator and enjoy better inter-personal relationships at workplace, in family, and with friends.

Unfortunately, training of life skills hardly finds any place in regular school curriculum and class setting than subject knowledge. Moreover, even the learner as individual is inclined towards developing competency and knowledge in prime subjects of education with paying less or no attention towards developing other skills/life skills. Therefore, ‘training of life skills’ or at least awareness about importance of life skills is required to be interwoven into the tapestry of curriculum or syllabus design in some or the other form. Of course, much of the dissemination of the life skills theory and training at the end level is accountable to be in the hands of ‘teacher’ at classroom level. Teacher’s philosophy, methods, knowledge of contents, aptitude and attitude for teaching, command over language, mental abilities, social skills, ability to manage with stress and emotions, general knowledge etc. are the back bone of the future progress of the person and largely of the society and nation. His inefficiency can result in the downfall of the nation.
The nation and society will attain more and more achievements and success in every field of national life and the key role for that is of teacher; and that’s why teacher preparation is very important, which is also reflected in the statements of various educational agencies:

- “People in this country have been slow to recognize that education is a profession for which intensive preparation is necessary as it is in any other profession” (The University Education Commission Report, 1948-49).
- “The destiny of India is now being shaped in her classrooms (The Education Commission, 1964-66).
- “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” (National Policy on Education, 1986-92).

These statements truly reflect the important task carried out by the teachers as transmitters, motivators and supporters of person’s eternal quest for knowledge in a true sense. Therefore quality teacher preparation is very important as the society demands quality teachers to meet these requirements.

The National Council for Educational Research and Training (NCERT) published a document called the National Curriculum Framework (NCF) in the year 2000. National Curriculum framework: 2005 (NCF: 2005) and National Curriculum Framework for Teacher Education: 2009 (NCFTE: 2009) has advocated to instruct prospective teachers with life skills education. The NCF provides the following guidelines, which reflects the importance of life skills education:

- The document sketched out four aspects of education in India. The first of these, “context and concerns” included a clause about “linking education with life skills and the world of work and value education” (NCERT, p. 12).
- True education is a process of developing the human personality in all its dimensions – intellectual, physical, emotional, social, moral and spiritual (NCFTE, 2009, p.32).
- Every person has ability of thinking and making ethical decisions independently or in a group. It is essential to sensitize students
regarding emotions then only they can survive in the world of satisfaction. To understand others, cooperation, social responsibility and good interpersonal relations are essential for prospective teachers. (NCFTE, 2009)

- NCF, 2005 acknowledged Adolescent Education and Life Skills linked to health, consumer rights and legal literacy as important areas in school education and included accordingly in secondary school curriculum. After 2005, over countrywide debate, sex education was restructured as the Adolescence Education Program (AEP) which focused on enhancing life skills among the adolescents, so that they can be responsible to deal the real life situations. The NCF, 2005 clearly outlined that the AEP should not be practiced separately rather be included in school education (Source: http://jespnet.com/journals/Vol_1_No_1_June_2014/13.pdf).

These all above statements necessitate the need to prepare the teachers with life skill constructs so that in future they would be able to handle children and youth related issues and events. The society today is facing through the signal changes and challenges like increasing poverty and unemployment, inequality, and youth unrest and violence etc. To meet these challenges, the society demands skill based man power and individuals having creative brains and problem-solving attitudes. Delors Commission also emphasized on personal development and empowerment rather than the individual’s economic growth. Life skills help the youth to transform knowledge, and attitude, to condense risk behaviour and acquire healthy behaviour which improves their lives in general. Studies on life skills conducted by Shangold (2004), Davis (2004), Rowland (2002), Chopra (2002), Meghani (1999), Waltemire (1999), Magee (1999), NIMHANS, Botvin (1985), RGNIYD (2009), Kulikov (2005), Grover (2006), Chaudhari & Mehta (2012) supported that fact and indicated that life skills have made the following effects: decreased aggressive behaviour; promoted good social behaviour and increased good interpersonal behaviour, decreased negative and destructive behaviour; increased the planning and decision-making ability, making effective problem-solving attitude; improved self-esteem, self-awareness and self control, improved
emotional management and empathy; better handling of conflict with peers and family; and coping with anxiety and stress.

Very less has been done to provide life skills education in Indian schools. Rather it is more emphasised on developing numeral and literacy skills i.e. 3R-skills (reading, writing and arithmetic skills). Moreover Indian educational system encourages rote learning and surface learning rather than understanding and thinking. Another fact about conventional approaches is that instrumental and vocational skills lay more emphasis. It is more concentrated on developing the cognitive aspects rather than on the applying thoughtful practices and developing psychosomatic dimensions. The changes and challenges of fast growing society today does not restrict to development of 3R- skills or vocational skills only but requires more contextual approach in education to prepare students to face real life situations. That indicates that there is a dismal need to incorporate life skills in teacher education programmes at all level, whether it is elementary, secondary or higher secondary teacher education programmes.

1.1 Background of the Study

A research needs knowledge of some fundamental concepts and concerns on which the whole research work is based. It provides necessary direction for an effective comprehension of the study. The theoretical foundation of the present study comprises as follows.

1.1.1 Concept of Life Skills

There is no universally accepted definition of life skills but there are different perceptions of life skills prevailing across the countries. Various organizations have given different meanings to the term ‘Life Skills’.

The World Health Organization and the United Nations Inter-Agency Meeting in April 1998 generated a broad definition of life skills which is described as: “Life Skill are abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life” (WHO, 1997, p.1).
“Life skills education is designed to facilitate the practice and reinforcement of psychosocial skills in a culturally and developmentally appropriate way; it contributes to the promotion of personal and social development, in the prevention of health and social problems, and the protection of human rights” (UNESCO, 1998).

Life skills are defined in the Targeting Life Skills (TLS) Model as “Skills that help an individual be successful in living a productive and satisfying life” (Hendricks, 1998).

The International Bureau of Education laid emphasis on four pillars of learning—learning to know, learning to do, learning to be and learning to live together and defines life skills as personal management and social skills which are necessary for adequate functioning of an individual.

UNICEF defines life skills as “a behaviour change or behaviour development approach designed to address a balance of three areas: knowledge, attitude and skills”. The definition of UNICEF was formulated on the research base that the risk behaviour is likely to be if the knowledge, attitudinal and skill based competencies are not addressed.

Life skills are essential skills that make life easier, and increase the possibility that individuals will realize their potential and become productive members of the society (Rooth, 1997:6).

In the context of Adolescent Education, UNESCO supported Two days Life Skill Workshop was organized by Remedia Trust. The participants of the workshop accepted the two definitions of life skills, which are presented subsequently:

1) Life skills are abilities for adaptive and positive behaviour.
2) Life skills refer to the ability to maintain the state of mental and Physical well-being while interacting with others within the local Culture and environment.
By analyzing all above definitions, it can be concluded that life skills are essential strategies developed in the form of insight, values, or one's perception towards self that helps an individual to address the needs and challenges of real life successfully. These skills or abilities essentially help improve mental and physical strength amongst adolescents and young ones by avoiding indulging in issues like violent behaviours, suicide attempts, drug addiction, teenage affairs-problems, alcoholic behaviour, and sexual risk and so on.

1.1.2 Historical Support to Life Skill Education
The importance of Life Skills Education was recognized almost all over the world. Parmar (2013) has written, in his BlogSpot, about Life Skills Education and History of Life Skills. By analysing the history of Life Skills Education, it was realized that life skills education played an important role in child development and adolescent health support practices.

The **Ottawa Charter for Health Promotion** acknowledged importance of life skills in making better health choices in 1986. **The 1989 Convention on the Rights of the Child (CRC)** related life skills to education focusing that educational practices should focus on the children’s optimal development. **The 1990 Jomtien Declaration on Education for All** supported this notion and integrated life skills in education by realizing it as one of the important learning instruments for human existence, competence and quality life.

**The 2000 Dakar World Education Conference** realized importance of life skills education as “an education to learning to know, to do, to live together and to be” by considering it as one of the six goals of EFA.

Various world class commissions and their reports expressed the importance of life skills, which is reflected through the following data.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Year</th>
<th>Agency</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1986</td>
<td>Ottawa charter (Health Promotion)</td>
<td>realized the significance of life skills in child’s better health choices</td>
</tr>
<tr>
<td>2</td>
<td>1989</td>
<td>Convention on the Rights of the child</td>
<td>related life skills to education</td>
</tr>
<tr>
<td>3</td>
<td>1990</td>
<td>Jomtien declaration on Education for all</td>
<td>linked life skills in education</td>
</tr>
<tr>
<td>4</td>
<td>2000</td>
<td>Dakar World education conference</td>
<td>advocated that all youth and adults have the human rights</td>
</tr>
<tr>
<td>5</td>
<td>2001</td>
<td>UNGASS on HIV/AIDS</td>
<td>Supported life skills education</td>
</tr>
<tr>
<td>6</td>
<td>2002</td>
<td>UNGASS on Children</td>
<td>Supported LSE</td>
</tr>
<tr>
<td>7</td>
<td>2003</td>
<td>World Health report</td>
<td>Advocated LSE necessary for mental health</td>
</tr>
<tr>
<td>8</td>
<td>2004</td>
<td>World programme for human right education</td>
<td>Emphasized on LSE as an human right Education</td>
</tr>
<tr>
<td>9</td>
<td>2005</td>
<td>UN decade</td>
<td>Accepted importance of LSE for sustainable development</td>
</tr>
<tr>
<td>10</td>
<td>2006</td>
<td>UN secretary general</td>
<td>Studied violence against children and Emphasized on LSE</td>
</tr>
<tr>
<td>11</td>
<td>2007</td>
<td>51st Commission</td>
<td>Meet for the position of woman and world development</td>
</tr>
</tbody>
</table>
1.1.3 Initiatives of Life skills Programme across the Countries

UNICEF, UNESCO and WHO played a vital role in the area of life skills in the progressive years starting from the identification of life skills in the year 1986.


In Myanmar (1997) and Zimbabwe (1998) with the collaboration of country Ministry of Education designed Life Skills Education Curriculum for primary and secondary school students. Department of Planning and Training of Ministry of Education in Myanmar in collaboration with UNICEF initiated project called SHAPE (School based living and HIV/AIDS Prevention Programme) at primary level as a general course. Later it was developed for upper primary students also.

Similarly in Thailand (1999) and Nepal (2008) with the collaboration with their Ministry of Education designed Life Skills Education Curriculum for primary and secondary school students. The purpose behind was to develop positive attitudes and behaviours and to equip them avoid HIV/AIDS.

In Vietnam (2000), Life Skills Education was initiated as part of project of UNICEF for youth inside and outside the school.

In Combodia (2005), the initiative was taken by the Ministry of Education to implement Life Skills Programme. Initially it was introduced to prevent HIV/AIDS among adolescents of primary school. It was found fruitful as the students became sensitive about their sexual behaviours. Based on the success of Life Skills programme for primary students, the government has developed more programmes for higher school students.

In Tajistan (2006), ministry of education of Tajistan collaborated with UNICEF and provided Life Skills education especially to girls out of school with the help of non-government organizations.

With support of UNICEF and with the help of Ministry of Education, Indonesia (2006) has prepared modules on Life Skills Education for Healthy Life for primary and secondary school level.
In countries like Nepal (2008) and Bhutan (2003), the Ministry of Education have introduced Life Skills Education for reproductive health of adolescent group.


In Nepal (2008), Life skills were integrated with different school subjects i.e. Social Science, Science, and health and Environment studies.

These all data indicates that more or less all countries have started efforts to provide life skills education.

Comparative Status of life skills education across SAARC Countries

All SAARC member countries realized the significance of Life Skills Based Education and incorporated it into their secondary teacher education programme. Munshi, K. and Guha D. (2014) studied the status of Life Skill Education in Teacher Education Curriculum of SAARC Countries: A Comparative Evaluation. The Comparative status of SAARC countries integrating life skills education in the teacher education programmes is given as below:

Table 1.2 Country wise status of life skills education in the teacher education programmes of SAARC area

<table>
<thead>
<tr>
<th>Names of Countries</th>
<th>Life Skill Education and its inclusion in secondary Teacher Education Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>Included Life Skills in the curriculum</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Secondary school curriculum was analysed and loopholes were recognized in relation to LSBE. Bhutan mastery on life skill education has been started to provide life skills education from initial teacher education programmes to the four years programmes for their development in all dimensions</td>
</tr>
<tr>
<td>India</td>
<td>NCF-2005 realized that the Adolescent Education Programmes (AEP) should be integrated in school education and not as an isolated component, and secondary teachers should be given the responsibility to transact LSBE to secondary school</td>
</tr>
<tr>
<td>Country</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>Maldives</td>
<td>Life Skills Education project was initiated as a co-curricular activity and was supported by United Nations Population Fund (UNFPA)</td>
</tr>
<tr>
<td>Nepal</td>
<td>National Curriculum Framework 2005 realized the importance of life skills and included it in the current curriculum by Curriculum Development Centre (CDC)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>World Population Foundation during 2006-10 had undertaken a flagship project on LSBE.</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Conducted Life Competencies Programme (LCP) to train the secondary teachers as an flagship</td>
</tr>
</tbody>
</table>

### 1.1.4 Life Skills Education

The World Health Organization’s Department of Mental Health state that “Life Skills Education is designed to facilitate the practice and reinforcement of psycho-social skills in a culturally and developmentally appropriate way. It contributes to the promotion of personal and social development (WHO, 1999)”.

“Life-skills based education is behaviour change or behaviour development approach designed to address a balance of three areas: knowledge, attitude, and skills (UNICEF)”. This definition of life skills education focuses on social, individual and reflective skills along with vocational skills. Life-skills based education has now become a regular and important component of the school and college curriculum in many parts of the world. This advancement has proved beneficiary to the deprived group of youth and adults.

According to UNICEF “it is ultimately the interrelations between the skills that produce powerful behaviour outcomes, especially where this approach is supported by other strategies such as media, policies and health service”.

UNICEF recognized the following criteria to guarantee an effective life skills based education:
- Life School Based Education should not focus on behaviour change rather than knowledge and attitude change;
- Traditional ‘information based’ approaches are not sufficient to bring changes in attitudes and behaviours. Therefore, the lecture should be substantiated with exercise and situations through which participants can experience and practice life skills and abilities in class-room setting;
- It will work best when reinforced. Hence, there needs to ‘r4’ i.e. repeat, recap, reinforce and review such practices.

1.1.5 Importance of Life Skills Education
Life Skills Education helps building a society that is equipped with a creative spark, problem solving attitude, horned with critical thinking ability, rationalistic individual, decision making potentialities, high level of sociability, effective communication and skills of interpersonal and empathy for tuning in the society. All these skills are the basis of good quality life and therefore students/youth need to be given training in life skills right from the primary education, along with textbook knowledge, academics skills and social skills.
Life Skills training creates an opportunity for the inculcation of fundamental life skills for operating successfully in the world of work, as well as fulfilling the demands of a changing society.

1. A joint initiative of ST and SC Development (SSD) Department, School and Mass Education (S&ME) Department, Government of Odisha and United Nations Population Fund (UNFPA) with Kalinga Institute of Social Sciences (KISS) as the Technical Resource Agency (TSR) states that life skills contribute:
  - To develop creativity and positive thinking
  - To encourage leadership and social abilities
  - To be skilled at Critical thinking, effective communicating and decision making
  - To encourage healthy practices, personal hygiene and nutrition
  - Learn about growing up processes and changes
• Deal with reproductive health issues
• Deal with peer pressure and avoid substance abuses
• Remain safe and effectively handle instances of harassment including sexual harassment
• Promote social skills and gender sensitivity
• to deal with stress and storms of life

2. At the United Nations Inter-Agency Meeting held at WHO, Geneva (WHO, 1999: 4) life skills education was considered as crucial for:
• For healthy child and adolescent development;
• To contribute to be physically, intellectually, socially and emotionally sound;
• Prevention of children’ and adolescents’ health related issues like death disease and disability;
• Preparing for socialization;
• Preparing youth for changes and demands of society.
• For promoting lifelong learning;
• For promote quality life and peace;

3. Some research findings reveal about life skills ‘s importance:
• For promoting self esteem, self confidence, being peaceful etc [TACADE, 1990].
• For preventing violent and disruptive activities and behaviour [Botvin et.al. 1984, Pentz, 1983].
• For helping promoting person’s well being and primary prevention [Errecart et al., 1991; Perry and Kelder, 1992; Caplan et al., 1992].
• Life skills help an individual to translate knowledge, attitudes and values into actual abilities and enable individuals to behave in healthy ways, given the desire to do so and given the scope and opportunity to do so. Results of research studies also prove that life skill education improves the academic performance of individuals [Weissberg et.al. 1989].
1.1.6 Relevance of Life Skills in Pre-service Teacher Education

Teacher Education programmes are the programmes for professional preparation of teachers. There are various types of teacher education programmes like

1. Formal Teacher Education Programmes (Pre-teacher education, In-service teacher education, Distance teacher education)
2. Adult and Non-formal teacher education
3. Preparing teacher educators for distance education
4. Professional Development Programmes like Orientation, Refresher courses and faculty development programmes for the professional growth of teachers and teacher educators.

Unlike general academic programmes, teacher education programmes are different programmes which are aimed at professional preparation and development of teachers. It is a process of preparing a person with specialized skills and methods/techniques required for a teaching profession. The colleges of education, known as B.Ed. and D.Ed. prepare teachers through their varied programmes for schools which provide professional knowledge, attitudes, values and skills required for teaching profession. There is a difference in the development of teacher education in India between the two periods- before and after independence. After independence, during the five decades, teacher education has embarked a new height from its early dreary structure to its new identity as a complex institutions and varied programmes with distinctive relevance. But there is a need to bring together all teacher education programmes at various stages, for more focused attention for composite conceptualization leading to stage-specific and programme-specific differentiated forms of knowledge base. And attempts were made at the national level to develop curriculum frameworks for teacher education in 1978 and 1988. The NCTE has attempted to study specific teacher education programmes, such as the integrated courses in teacher education. Teacher education has been greatly influenced over the years by developments in the field of education as well as those in the society at large.

According to NCTE (National Council of Teacher Education, 1998), teacher education is a professional training programme for the development of teacher
as a person and as an agent of social change. So teacher education for all stages of school education is the most crucial point for the improvement of quality of school education. Teacher is the person who serves as a social worker of the society. The teacher has many responsibilities towards pupils, parents and the institution. The teacher has to decide which kinds of learning experiences need to be given to the students, inform parents about pupil’s performance and also play different roles like administrator, coordinator, researcher, decision maker, guide, leader and facilitator within the institution. Many a times it is difficult to give proper attention to manage all these roles properly. In such conditions they experience stress and that affects their performance in the school as stress and mental health are closely related. Due to this students’ development is affected.

*Teacher trainees need to study issues related to self and identity, human relationships, adult-child gaps, assumptions, beliefs and attitudes. They could explore the meaning of ethics and values, observe and understand feelings of fear and trust and their influences in personal and social attitude, attitudes towards competition and co-operation, analyse and observe the impact of competition in personal and social life, observe the role of listening, attention and empathy and the role of a teacher in establishing relationship with children and as a communicator. A greater insight into one’s aims of life, one’s strengths and weaknesses and the dynamics of identity formation provides the base for developing a professionally competent teacher who is sensitive to issues of equity, democracy and social justice (NCF, 2009, p.33).*

It has stressed on training teachers to be equipped with not only the subject content and epistemology but also with the knowledge of concepts of child psychology, understanding the adolescents, learning theories, and socialization processes at all the stages of school level whether it is pre-primary, primary, secondary stages of teacher education.

However during the admission of Teacher education certain points are often overlooked like (a) communication skills (b) general awareness of the self and the world (c) a positive outlook on life (d) capacity to build and maintain good
human relations etc. and these abilities are very important for pre service teachers to grow in personality and to face certain problems in life and ultimately lead towards quality life.

In this line, the National Curriculum Framework on Teacher Education, while articulating the vision of teacher education, positions the new approach, as under:

- **Reflective practice as an central aim of teacher education;**
- **Student-teachers should be given opportunities for self-learning, reflection, be critical, assimilation and articulation of new ideas;**
- **Developing capacities for self-directed learning and ability to think, be critical and to work in groups;**
- **Providing opportunities to student teachers to observe and engage with children, communicate with and relate to children** (NCFTE, 2009).

Hence, it is desired that the future teachers would develop essential constructs of life skills which not only help them to face challenges in life confidently but also to train their students, in future, to utilize the skills in their personal and professional life.

### 1.1.7 Status of Life Skills Education in India

Between 1978 and 1988, steps were initiated to develop curriculum frameworks for teacher education at national level. As its initiative the NCTE has made an attempt to study integrated courses in teacher education. Similarly, the document popularly known as NCF (National Curriculum Framework) was published by the National Council for Educational Research and Training outlining four aspects of education in India. The very first aspect “context and concerns” mentioned and rather advocated to link education with life skills and the real world work as well as value education. The prime objective here was to get teacher trainees acquainted with life skills elements to cope with issues related with youth in future. Moreover, NCF (2010) also emphasizes on development and learning perspectives for child, youth and adolescent. The idea is not only to hone the teachers’ teaching skills but also
to enable them to understand the students and their community in order to understand the students’ problems.

Life skills education has now turn out to be a very essential and imperative part of educational system all over the world. But in Indian schools it has yet to be fully initiated and acknowledged as an integral part of the curriculum. Here are few examples which show the status of life skills education in certain states of India.

Shiela Ramakrishnan (2010) published an article in Teacher Plus in which she has mentioned that value education is often misunderstood with life skills education in the majority schools of India. She further states that most schools have included value education in their curriculum but life skills education was given less importance in the curriculum in spite of its requirements as mentioned in the NCF.

Realizing the importance of life skills education as per recommendations of NCF, the Central Board of Secondary Education (CBSE) introduced LSE in class 6th in 2003-4, in class 7th in 2004-5 and consequently in classes 8th, 9th and 10th. UNICEF in collaboration with GCERT developed Life Skills Education Modules for elementary teachers to integrate life skills with schools subjects. In 2012, the CBSE began life skills training programme as a Continuous and Comprehensive Evaluation aimed at the adolescents of 10-18 years of age (Subitha G.V., 2013).

Sarva Shiksha Abhiyaan (SSA) has started giving training in life skills for the upper primary girls apart from providing elementary education. But it was observed from classrooms of Government schools in few districts of Tamilnadu that life skills education has a lot been misunderstood with vocational education. When government schools were asked about the life skills education being offered, the reply received from the teachers was surprising. The teachers shared that the girls are taught to make dolls, stitch frocks, and make candles and napkins under life skills training (Subitha G.V., 2013). These data indirectly point outs the need of disseminating appropriate
training programs of life skills in schools in order to deliver its true intent. And teacher education colleges are the direct stakeholders to integrate life skill approach as future teachers are going to train the adolescents and youth.

A special course, first of its kind in India, M.A. in Life Skills Education is offered by Rajiv Gandhi National Institute of Youth Development which aims at preparing a cadre of youth with self-worth, power and competence in all walks of life. This program, as it states, is designed for imparting skill-based education to address the issues of day-to-day life. This PG program presumes to enable students to help others to make informed decisions, solve problems, develop critical and creative thinking, and build healthy relationships through effective communication and deal with risk situations.

Similarly, an institute known as KISS (Kalinga Institute of Social Sciences) in Odisha provides free education along with residential facilities to tribal students. The prime idea is to educate these students through life skills to deal with the challenges of their real life effectively. Moreover, the institute is also supported by United Nations Population Fund (UNFPA) to undertake initiatives for promoting Life Skills Education (LSE). The institute in collaboration with ST and SC Development has embarked towards the journey of providing life skills education in 121 tribal residential high schools and 17 Kasturba Gandhi Balika Vidyalayas (KGBVs). This endeavor is considered to reach out to more and more school children in near future.

Along with initiatives supported by the government, there have been few non-government organizations who have taken up projects to improve quality of education in the nation. Pratham is an organization of that kind which aims for quality improvement with low-cost interventions in education. With several projects in different states, Pratham began its work in Gujarat in 1999, primarily in Baroda and Ahmedabad offering rural and urban programmes since 2003. It provides learning support by offering modules to brush for secondary education, in Language, Math, Life Skills and English. This project runs in Ahmedabad, Gondal, Kadi and Dholka in Gujarat.
Very few teacher education colleges in Gujarat offer Life Skills Education as one of the subjects in the curriculum. UNICEF in collaboration with GCERT developed Life Skills Education Modules for elementary teachers to integrate life skills with schools subjects. The Department of Education, Faculty of Education and Psychology, The M.S.University of Baroda, Vadodara has initiated to provide life skills integrated in one of the core subjects “education Psychology”. Also Waymade College of Education, Vallabh Vidyanagar, Anand has started offering “Life Skills” as one of the elective/ foundation courses in B.Ed. and M.Ed. Programmes. Similarly, Gujarat Technological University has also introduced Life Skills as a subject in the Bridge Course (one month course) offered to the first year students of Engineering in Gujarat. These all efforts were voluntarily taken by the organizations. But government’s systematic efforts are not made to enhance life skills among pre-service teachers.

Although there have been educational initiatives to either introduce or incorporate Life Skills Education with the main stream curriculum, it still has not got its place into the main frame of academics on a regular level. The recommendations made by NCF about life skills have not become a regular part of school curriculum in real sense, particularly in GSEB schools. GSEB schools give no emphasis at all on life skills education. Somehow, the gap between knowledge aimed through the pure academics and preparing competent individuals who would be ready to take challenge in future world needs to be filled up through appropriate training of life skills. On a more practical ground, substantially real life oriented and learner-centered life skills training programme needs to design. Unless, the students and parents do not realize its relevance to real life it is not make any difference in the perception towards taking life skills as important as any other core subject.

1.2 Rationale of the Study
If we ask any teacher who has been in the profession for several years, has the same opinion that students today are very different from students before years ago and so the mechanism to deal with them is also required knowledge and
techniques by the teachers. An alarming percentage of students lack the fundamental values and human values like trustworthiness, being ethical, honesty, kindness, and lawfulness, at the same time they cannot cope with the stress and emotions due to the problems they face in the school, in the family and in the society. They are often said to be weak in social skills and often found rude and uncooperative. They also need to be handled in their emotional skills where they fail, at times, to control their impulses and give away to their feelings. Often, they are also observed less trained with personal, organizational and planning skills.

There can be number of factors influencing the youth’s behaviour or attitude towards the work on hand, the society at large, and towards life. However, it is necessary to find reasons that drive youth’s action and behaviour. Some of the research studies reveal shocking results. A statistics by Open Government Data (OGD) Platform India - data.gov.in (a platform for supporting Open Data initiative of Government of India) published a data base for suicide cases in Gujarat and its causes in the year 2009 and 2011, which is mentioned below:

<table>
<thead>
<tr>
<th>Causes</th>
<th>Year 2009</th>
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<th>Year 2011</th>
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<tr>
<td>Drug abuse</td>
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<td>33</td>
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<td>Failure in examination</td>
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<td>719</td>
<td>1115</td>
<td>942</td>
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<tr>
<td>Unemployment</td>
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<td>142</td>
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<tr>
<td>Illegimate pregnancy</td>
<td>0</td>
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<td>0</td>
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</table>
Vijaykumar L. (2007) describes an unhappy state of the suicide rate among youth in southern and eastern states of India from 7.9% to 10.3% between the years 1987 to 2007. It was found that if not to make suicidal attempts, they lose the motivation and drive towards life. This indicates life skills crisis among youth. Therefore it is a responsibility of a teachers and parents to prepare their children and youth to cope with the pressures and challenges of their life. Such a scenario made it imperative to intervene for providing them with life skills. Therefore only classroom curriculum or moral/value education is not sufficient to bring a desired change. The education must help these young people to face the problems and storms of tomorrow. Today the teachers, schools and formal institutions take great care of all domains of learning consisting cognitive, affective and psychomotor, what is missing are the skills to bridge the gap between knowledge and behaviour. There is an urgent need to provide today's youth to equip with a new set of ways and systems to deal with the demands of life. Since the basic unit of the society is ‘system’ rather than 'individual', it is essential that the youth be helped to develop skills inherently to handle a wide variety of choices, changes, problems and stressors. It is the purpose of education to equip individuals to face these challenges. Teachers’ community can best contribute to develop life skills to deal challenges and demand of life everyday life. If teachers would not be competent enough, then that would affect the development of students at a large scale as development of children is directly related to teachers’ competency (Jones, 1983). On the contrary, teachers’ themselves need to develop life skills constructs among them, which is reflected from some of the research studies. Paul et al. (1995) disclosed that teachers needed to develop clear understanding of the basic concepts of critical thinking as very few have a comprehensive sense of how to promote critical thinking while teaching the content subjects of discipline. Bhave (1999) suggested all the teachers should be imparted life skills training of junior colleges. Sharma S, (2003) revealed that most of the teachers were not aware of the concept of life skills. Promod & Pereira (2011) disclosed that the propagators’ of nation’s future i.e. student teachers of Kerala were not empowered enough to meet the demands and challenges of the day-to-day life, which require life skill to a great extent.
Study conducted by Devi Prasad (2001) indicated that significant incidence of violence in Indian Families warrants the need for appropriate intervention program. A glimpse of the above mentioned studies indicates life skills crisis among the prospective teachers.

Moreover, reflecting on the experience of being teacher educator for last five years, the investigator has realized on several occasions that pre-service teachers too, like children in schools, lack certain life skills like decision making, coping with stress and emotions, negotiating while finding alternatives to aggression and so on. Therefore, the accomplishment of graduation/post graduation degree does not necessarily guarantee the ability of a person to handle real life crisis. So the investigator had decided to know how much equipped the pre-service teacher educators are with the life skills at the large level. Hence, the investigator made an attempt to measure the level of life skills practices of pre-service teachers; to develop a Life Skills Programme along with the activities, procedure and evaluation tools to enhance life skills of pre-service teachers; and finally at the end to evaluate the effectiveness of the life skills programme.

1.3 Statement of the Research Problem
The main problem investigated in this study was:
Development & Tryout of a Programme on Life Skills for Pre-Service Teachers

1.4 Operational Definitions of the Key Terms
In order to various key words used in the present study - Life Skills, Life Skills Programme, Effectiveness and Pre-service teachers are operationally defined as below:

**LIFE SKILLS**
“A skill is a learned ability to do something well.”
“Life skills are the abilities for adaptive and passive behaviour that enables individual to deal effectively with the demands and challenges of everyday life (WHO).”
Life skills are many. But life skills here mean the ten core life skills suggested by WHO.

**Core Life Skills include (World Health Organization 1997: p.1):**

**Self-awareness**- It refers to the ability to identify personal strengths, weaknesses and vulnerabilities, clarify personal values and beliefs, and recognize personal worth and personal happiness; identify goals and aspirations;

**Interpersonal relationship skill**- It refers to the ability to maintain good relationship with the members of the society;

**Effective communication**- It refers to the ability to express own, ideas views, opinions, information, etc. verbally or non-verbally in an appropriate manner;

**Problem solving**- It refers to the ability to find solutions to the problem, ability to incorporate past experiences to solve the problem;

**Decision-making**- It refers to the ability to evaluate information and advice to make informed decisions, assess advantages and disadvantages of different options, change decisions to adapt to new situations, and plan for the future;

**Creative thinking**- It refers to the ability to think beyond thing exists and find alternative possibilities of how to come up with new, unique, original and useful ideas;

**Critical thinking**- It refers to the ability to analyze social and cultural influences on attitudes, values and behaviour, question inequality, injustice, prejudice and stigma, explore and evaluate social roles, rights and responsibilities, and evaluate risks;

**Empathy**- It refers to the ability to place yourself in other’s shoe and then think of the reactions, helping others; process of understanding a person’s subjective experience by vicariously sharing that experience while maintaining observant stance;

**Coping with emotions**- It refers to the ability to recognize own emotions, understanding emotions of others and expressing own emotions in an appropriate manner; control emotions when faced with situations which call for your deeper feelings;

**Coping with stress**- It refers to the ability to recognize sources of stress in own life and cope with stressful situations and find out stress-bursting mechanisms.
LIFE SKILLS PROGRAMME

Koontz, O’Donnell and Weihrich (1980:168-169) define programmes as: “….a complex of goals, policies, procedures, rules, task assignments, steps to be taken, resources to be employed, and other elements necessary to carry out a given course of action they are ordinarily supported by necessary capital and operating budgets…A primary program may call for many derivative programs…Thus one seldom finds that a programme of any importance in enterprise planning stands by itself. It is usually a part of complex system of programs, depending upon some and affecting others.”

For this study, the design of Life Skills Programme consists of the programme outcomes, series of learning activities and tasks, techniques and the procedure to be employed which will involve the participants in working participatory mode towards the achievement of one or more specific outcomes. The Programme here constituted of various individual, pair and group activities following various techniques and procedure. Various techniques suggested by WHO like small group-large group discussions, brainstorming, role plays, audio-visual activities, role-play, dramatization, games and puzzles, simulations, Case studies, story-telling/making, self-reporting, debates and simulations were used to develop the programme.

EFFECTIVENESS

According to Wikipedia, Effectiveness is the capability of producing a desired result. When something is deemed effective, it means it has an intended or expected outcome, or produces a deep, vivid impression.

The aim of the Life Skills Programme is to develop and enhance life skills among pre-service teachers and evaluate its impact/effectiveness. Here Effectiveness means, “the statistically significant difference in the mean ranks from pre-test to post life skills between experimental group and control group due to intervention: LSP, is termed as effectiveness for the purpose of the present study. Also the effectiveness of the program was judged in terms of gender (female/Male), area (rural/urban), discipline they opted at higher
secondary level (Arts/Science/commerce) and educational qualification they hold (Bachelor degree/Master Degree).

**PRE SERVICE TEACHERS**

Pre service teachers are the teacher trainees who undergo B.Ed. Course before getting into the profession of teaching.

Pre-Service Teachers in the present study included teacher trainees (here termed as pre-service teachers) of Colleges of Education (B.Ed.) of Surat city affiliated to the Veer Narmad South Gujarat University.

**EXPERIMENTAL GROUP AND CONTROL GROUP**

In an experiment hypothesis testing research, when a group is exposed to usual conditions, it is termed as a ‘control group’. But when the group is exposed to some novel or special condition, it is termed an ‘Experimental Group’ (Kothari, 2004: 35)

In the present study experimental group is that group who were participated in the Intervention Programme: Life Skills Programme (LSP) and control group is that who are not participated in any intervention programme.

**1.5 Aim of the study**

The study aimed at finding out strategies, ways and means for developing the life skills programme in case of pre-service teachers to enhance the life skills in them and evaluating its effectiveness in enhancing their life skills.

**1.6 Objectives of the study**

**Research Objectives**

The research objectives of the study were:

1. To construct a situational test to assess the level of life skills of pre-service teachers in life related situations before and after the intervention- LSP.

2. To construct a Life Skills Scale (LSS) to assess the level of life skills of pre-service teachers before and after the intervention- LSP.
3. To explore the methods and strategies to impart life skills education, and to develop a Life Skills Programme (LSP) for pre service-teachers.
4. To study the effect of the Life Skills Programme (LSP) by assessing the difference between pre-service teachers who participated in the program and who did not.
5. To study the effect of a Life Skills Programme on pre-service teachers with respect to gender, the area they belong to, the discipline they opted at higher-secondary school level and the educational qualification.
6. To find out the opinions of pre-service teachers (who participated in the programme) regarding Life Skills Programme.

**Task Objectives**

The task objectives of the study were:

1. To review the literature related to life skills and to analyze the content for the programme.
2. To construct the situational test to measure the level of life skills of pre-service teachers in life-like situations.
3. To construct the Life Skills Scale to measure the level of life skills among pre-service teachers.
4. To develop and tryout the Life Skills Programme for pre-service teachers.
5. To analyze the data through appropriate statistical and descriptive techniques.
6. To interpret the statistical data received from data analysis.
7. To arrive at the findings of the programme prepared and implemented by the researcher.

**1.7 Variables involved in the Study**

Variables involved in the study Variables are the conditions or characteristics that the experimenter manipulates, controls or observes. In this study, two independent variables: treatment and attribute variables were decided. The treatment variable was the implementation of the ‘Life Skills Programme’ to
enhance life skills which was given to the pre-service teachers. And the attributed variables for the present study were gender, area, discipline opted at higher-secondary school level and educational qualification of the pre-service teachers. The dependent variable in the present study were life skills scores measured on pre-test, post life skills and situational test with respect to gender(female/Male), area they belong to (rural/urban), the discipline they opted at higher secondary level (Arts/Science/Commerce) and the educational qualification of pre-service teachers (UG/PG).

1.8 Hypotheses of the study
Hypotheses are tentative, concrete and testable statements about relations among variables. A hypothesis which is suggested as an answer to a problem has to be tested empirically before it can be accepted and incorporated into a theory (Bless & Higson-Smith, 1995:37).

In view of the preceding statement of the problem, this research is directed further by the following null hypotheses:

**Hypothesis framed by considering Scores on Situational Test**
H_{01} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not.

H_{02} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to gender.

H_{03} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to area.

H_{04} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.

H_{05} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.
Hypotheses framed by considering Scores on Life Skills Scale

H₀₆ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who attended the programme and who did not.

H₀₇ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to gender.

H₀₈ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area.

H₀₉ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.

H₁₀ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

1.9 Area of the Research study

Buch M. B. Mentions, in Fifth survey of educational Research (1997:14), there are thirty-eight areas of educational research. The classification of areas was based on the subject content, stages of education, and branches of education etc. which are as follow:

1. Language Education
2. Philosophy of Education
3. Sociology of Education
4. History of Education
5. Economics of Education
6. Psychology of Education
7. Mental Health
8. Cognitive Process
9. Social Process
10. Motivation
11. Creativity and Innovations
In the present study, the researcher has developed techniques to enhance life skills for pre-service teachers. And therefore the present research is having more relevance with certain areas: (1) Teacher Education: Pre-service and In-service and (2) Teaching Strategies. Also the study falls under the area: Mental Health and Cognitive Process.
1.10 Type of Research


1. Fundamental researches
2. Applied researches
3. Action researches

In the present study, the experiment was conducted using theoretical knowledge to find its usability in educational practices. So the study was considered as an applied research.

Secondly the researches are classified as: (1) Qualitative Research and (2) Quantitative Research. In the present study the data, in terms of the ordinal scale, were collected and numerically analyzed. The result of the study was found out with the help of the proper statistical techniques. Hence, the present study was also classified under the quantitative research.

Also this study is also referred as Hypothesis Testing/Evaluation Research as the experimental tests the hypotheses in controlled environment and either accepts or rejects the hypothesis.

This research was focused on developing a programme and finding out its effectiveness, therefore, research type is Intervention Research.

1.11 Significance of the Study

1. Researcher has constructed ‘Life Skills Scale (LSS)’ for measurement of life skills attributes/constructs of pre-service teachers. So it will be useful for the teachers to identify the level of life skills of their students and give life skills training as per learners’ need.

2. In the present study, the ‘Life Skills Scale’ was constructed to know the level of life skills among pre-service teachers. The study explored
the possibilities of creating need based and age based life skills programme that is user friendly and cost effective.

3. In the present study, ‘Life Skills Programme” was developed, which was based on various individual, pair and group activities using various techniques i.e. discussion, role play, drama, self reporting, case study, story making games and so on. Thus, the study could be useful to guide the teacher educators and other teachers in preparing Life skills programme for a specific group of learners. Further the programme will help teachers to guide how to integrate life skills with curriculum and make learning more realistic, comprehensive, meaningful and effective.

4. Further it could be significant to the teachers at various stages of education, school counsellors and community volunteers in preparing need based, adaptable and user friendly materials based on experiential approach. The above mentioned communities will get directions to create life skills programme for children and youth that reflect their socio-cultural context, age based, and language specific.

5. The Life Skills Scale and the Life Skills Programmes will also guide and equip parents to help their children at the home to know the life skill constructs of their children and develop life skills among them.

1.12 Delimitation of the Study

The research findings of the study cannot be applicable in all the conditions. Keeping in mind the constraints like time and resource constraints, the study was delimited to the following:

- The present study is confined to preparation and tryout of a Life Skills Programme for pre-service teachers at secondary level of B.Ed. Colleges of Surat city affiliated to Veer Narmad South Gujarat University.
- The Life Skills Scale constructed was not standardized.
- Life Skills are many but the present study was confined to the development of a programme on ten core life skills suggested by World Health Organization (WHO) i.e. Self awareness Skill,
Interpersonal Skill, Effective communication Skill, Critical Thinking Skill, Creative Thinking Skill, Decision Making Skill, Problem Solving Skill, Coping with stress, Coping with emotions, and Empathy. So the generalization of information provided by this study will be limited to these ten life skills.

1.13 Limitations of the study
Due to limitation of time and resources, the present study has been delimited to the following aspects.

1. It was not possible to make equal groups with respect to gender, area, discipline and the educational qualification of the pre-service teachers in the present study. So, the non-parametric techniques namely Mann Whitney (U) Test and Kruskal Wallis Test (H) were used to data analysis and interpretation.

1.14 Research Methodology employed for the study
1.14.1 Population of the Study
All the B.Ed. Colleges affiliated to Veer Narmad South Gujarat University constituted a population for the present study.

1.14.2 Sample of the Study
Two B.Ed. colleges affiliated to Veer Narmad South Gujarat University were selected by purposive sampling. All the pre-service teachers of those selected B.Ed. colleges constituted the sample.

1.14.3 Research Design employed for the present study
The study incorporated quasi-experimental design namely Pre-test Post life skills Non-equivalent Experimental Control Group design. The experimental group was exposed to Life Skills Programme and the control group was given Life Skills Theoretical Orientation. The Life Skills Scale and Situational Test (at pre phase) were administered at the beginning of the experiment to both the groups to assess the pre-status of life skills and the use of life skills in real life situations of pre-service teachers. The Life Skills Scale and Situational
Test (at post phase) were administered towards the end of the experiment to measure the enhancement level and to evaluate the effectiveness of the treatment, that is, Life Skills Programme.

1.14.4 Research tools employed for the study
The Situational Test and Life Skills Scale (used at pre phase and post phase level) were used to assess the level of life skills before and after the intervention-LSP. A range of questions based on understandings of life skills and the practices of life skills in real life situations were incorporated in the situational test, and were employed before and after the intervention-LSP. The Life Skills Scale covered items that evaluated various constructs (indicators) of the core life skills inherent among pre service teachers. Programme Feedback Questionnaire, Focused Group Discussion and Field Notes and Observations were used to get opinions of pre-service teachers about Life Skills Programme.

1.15 Scheme of Chapterization
The thesis has been presented into the following six chapters.

Chapter I
This chapter introduces the background and context of the current study. Further it enumerates the problem of study with the explanation of key terms. It also states the objectives of the study, the rationale and purpose of the study, research questions, objectives of the study, scope of the study, hypotheses framed, delimitation and limitations of the study and scheme of presentation.

Chapter II Review of Related Literature
This chapter was divided in two parts- Conceptual Framework and Review of Related studies. Conceptual Framework focuses on the framework or theoretical background of the study undertaken. This includes definitions of life skills and components of life skills, models of life skills existed. Review of Related Literature begins by stating the objectives with which review of related literature is done and then presents the different studies reviewed for
the present work. This chapter reviews the literature in the main areas related to present study.

Chapter II Research Design and Methodology
This chapter provides a detailed description of the methodological principles and procedures adopted for the study. A detailed account of the research setting, the sample for the study and tools used for data collection. Each of the tools is discussed in detail from the designing point of view, and finally it presents the procedure of data collection as well as data analysis.

Chapter IV Life Skills Programme
This chapter outlines the expected outcomes of the programme, index of activities of the programme, detailing of each activity in series focusing aim of the activity, skills to be focused, process to be employed band facilitator’s role to make activity more sound and meaningful.

Chapter V Data Analysis and Interpretation
This chapter depicts the analysis and interpretation of the data gathered through research instruments. The hypotheses reiterated were examined through various statistical tests and measures with the help of SPSS Version 10 software. Interpretations based on the findings have been presented and discussed in the light of the study undertaken. The data obtained is analyzed quantitatively using Mann-whitney U test and Kruskal-Wallis Test (U). Moreover, the data gathered from different sources were brought to bear upon each other, where needed to arrive at a set of conclusions.

Chapter VI Findings, Suggestions and Implications
This is the last chapter of the dissertation which deals with the findings from the present study and educational implications of the same. This chapter provides an overview of the research study with an explanation of the findings resulting from the analysis of the data. The chapter also presents the implications of the study based on the findings of the research. In addition, the chapter also offers recommendations for future studies that can be undertaken in the field.
1.16 Conclusion

This chapter introduced the background and context of the current research. The chapter then discussed the meaning of life skills education, status of life skills education in India and across countries of the world; and importance of life skills education. Moreover, it also examined Life Skills Education in India and Gujarat with a specific focus on the role of teacher education for the development of life skills among the youth and children. This was followed by an explanation of the rationale of the study, the research questions, statement of the problem, scope of the study, research objectives, research hypotheses, population and sampling, research design and methodology, and delimitation of the study were then presented. Finally, the scheme of Chapterization offered an overview of the entire research study.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

2.1 Philosophical Review of the content

  2.1.1 Classification of life skills
  2.1.2 International Models of Life Skills
  2.1.1 Understanding Core Life Skills suggested by WHO
  2.1.2 A Brief Summary of Life Skills and its indicators

2.2 Review of Previous Studies

  2.2.1 Importance of Review of Previous Studies
  2.2.2 Review of related studies conducted in the field of life skills

2.3 Emerging Observations

2.4 Uniqueness of the present study

2.5 Conclusion
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

Research review is a crucial step in any form of study. By carrying out the theoretical and philosophical review of the different aspects of the content, the researcher gets insights to embrace on the research problem he/she had selected. The readers also get familiar about the progress of the researches conducted in particular area. Here the researcher has reviewed both philosophical review of the content and review of studies conducted in the field of life skills.

2.1 Philosophical Review of the Content

Philosophical review for the present study is very important and essential as the understanding of concept of life skills, life skills attributes, theories of life skills and models of life skills help the research to develop a life skills scale and life skills programme.

Davies (1971) opines that “the aim of the philosophical review of the content is to divide the learning (Teaching) material in their factors or elements and synthesize them in their order logically”. Considering this opinion, philosophical review of the content is oriented towards gradation and organisation of the material. However, Joshi (1994) has given comprehensive view point of philosophical review as Analysation of the content with reference to one syllabus of the only one subject. He suggested several points to consider the philosophical review:

1. To get knowledge about the different aspects of the content relevant to the problem.
2. To construct the questions related to content to carry out philosophical review.
3. To identify references for the review.
4. To seek the answers of the questions using the references.
5. To analyze the collected data/information with reference to the particular field of the content.
For comprehensive analysis of the related literature and for analysing of the facts related to the problem, the researcher, in this study, has used a range of online and offline sources of references to answer the following questions.

1. What is the meaning of Life Skills?
2. What are the definitions of Life Skills given by different organisations?
3. Which are core life skills needed by any individual?
4. What are the different classifications of life skills?
5. Which are core life skills suggested by WHO?
6. What is the meaning, definitions, importance and process of each core life skill?
7. What are the indicators of each core life skill?
8. Where is the Life Skills Education originated?
9. What is the status of Life Skills Education in India and across the different countries of the world?
10. Which are the Basic ideas of Life Skills theory?
11. Which are the different life skills models developed in the history?
12. Why is Life Skills Education important for an individual?
13. Can Life Skills be enhanced through Life Skills Based Education/Training Programme?
14. Can Life Skills Education be integrated well in school curriculum? How?
15. Which methods and techniques can be used for imparting Life Skills Education?
16. Which Life Skills Model can work best in the Indian classrooms?

2.1.1 Classification of Life Skills
Life Skills are many. There is no definitive list of essential life skills, as life skills differ according to the situations and circumstances of a person, according to the socio-culture context of an individual.

There are various classifications of life skills based on social and cultural contexts. The life skills classification suggested by WHO is as follows:
Fig. 2.1 Classification of life skills by WHO (Source: WHO Module 7 Life Skills, P.7-3)

a) Critical Thinking Skills/ Decision-making Skills
This set of skills includes skills related to cognitive domain. Information gathering skills, information-analysing skills, problem solving skills, decision-making skills and thinking skills fall under this category. A person should be able to solve the problems by thinking of alternative solutions and make informed decisions.

b) Interpersonal/ Communication Skills
Skills such as verbal communication, non-verbal communication, active listening, effective expression, and giving feedback fall under this category. This set of skills also includes negotiation/refusal skills and assertiveness skills that help to manage the conflict resolving. Empathy also falls under interpersonal skill, which requires active listening and understanding others and their needs. Teamwork, cooperation and expressing respect for others too are part of
interpersonal skills, which facilitate the youth to be accepted in society. These skills result in the development of social norms that later result into the adult social behaviour.

e) Coping and Self-management Skills
This set of skills play very important role to enhance the internal locus of control. It classifies into two parts. Self management skills such as self-awareness, self-esteem, self appraisal and goal setting skills etc. are one part of this category. Coping with stress, anger, grief and anxiety are next part of skills which fall under this category. Stress management and time management play important role for the positive thinking and relaxation.

2.1.2 International Models of Life Skills
There are various taxonomies of life skills for wide range of life skills. The International Bureau of Education and Pillars of Learning (1996), Revised Classification of Life Skills According to Hopson and Scally (1986) and Life Skills Classification according to Gazda, Childers and Brooks (1987) were explained below in order to identify the life skills classification.

2.1.2.1 The International Bureau of Education and Pillars of Learning
International Bureau of Education focused on four pillars of learning (Delors, Jacques et. al., 1996):

a) Learning to know
b) Learning to do
c) Learning to be and
d) Learning to live together

Following are four pillars of learning and their component life skills:

LEARNING TO KNOW— This pillar of learning focuses on the development of cognitive abilities of a person which includes (as cited in Mahesh C. & Sara N.T.T., 2011:7):

- Decision making/solving skills
  - Information gathering skills
• Evaluating future consequences of present actions for self and others
• Determining alternative solutions to problems
• Analysis skills regarding the influence of values and attitudes of self and others on motivation

➢ Critical thinking skills

• Analyzing peer and media influences
• Analyzing attitudes, values, social norms and beliefs and factors affecting these
• Identifying relevant information and information sources

LEARNING TO BE - This pillar of learning focuses on the development of personal abilities of a person which includes (as cited in Mahesh C. & Sara N.T.T., 2011:7):

➢ Skills for increasing internal locus of control

• Self esteem and self confidence
• Self awareness skills (awareness of rights, values, attitudes, strengths and weaknesses
• Goal setting skills
• Self evaluation/self assessment/self-monitoring skills

LEARNING TO DO- This pillar of learning focuses on development of management abilities of a person which includes (as cited in Mahesh C. & Sara N.T.T., 2011:7):

➢ Dealing with grief and anxiety

• Anger management
• Skills for managing feelings
• Coping skills for dealing with loss, abuse, trauma

➢ Positive thinking

• Time management
• Skills for managing stress

41
LEARNING TO LIVE TOGETHER- This pillar of learning focuses on development of interpersonal abilities of a person which includes (Mahesh C. & Sara N.T.T., 2011:8):

- Verbal/Non verbal communication
  - Interpersonal communication skills
  - Active listening
  - Expressing feelings; give feedback (without blaming) and receiving feedback

- Negotiation/refusal skills
  - Negotiation and conflict management
  - Assertiveness skills
  - Refusal skills

- Empathy
  - Ability to listen and understand another’s needs and circumstances and express

- Cooperation and team work
  - Expressing respect for others contribution.
  - Assessing one’s own abilities and contributions to the group

- Advocacy skills
  - Influencing skills and persuasion, networking and motivation skills.

2.1.2.2 Revised Classification of Life Skills According to Hopson and Scally (1986)

Barrie Hopson and Mike Scally of the Counselling and Career Development Unit, Leeds University developed the first model of classification of life skills in 1980. They revised the original model and used an analytic approach to classify life skills into four categories of life skills. They four categories are learning, relating, working and playing, and developing self and others. Revised Classification of Life Skills According to Hopson and Scally (1986) is presented in table 2.1 on subsequent page.
### Table 2.1 Revised Classification of Life Skills according to Hopson and Scally (1986)

<table>
<thead>
<tr>
<th>SKILLS OF LEARNING</th>
<th>SKILLS OF RELATING</th>
<th>SKILLS OF WORKING AND PLAYING</th>
<th>SKILLS OF DEVELOPING SELF AND OTHERS</th>
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<tr>
<td>• Literacy</td>
<td>• Making, keeping and ending relationships</td>
<td>• Career management</td>
<td>• Being positive about yourself</td>
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<tr>
<td>• Numeracy</td>
<td>• Communication</td>
<td>• Time management</td>
<td>• Creative problem-solving</td>
</tr>
<tr>
<td>• Information-seeking</td>
<td>• Assertiveness</td>
<td>• Entrepreneurship</td>
<td>• Stress management</td>
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<tr>
<td>• Learning from experience</td>
<td>• Being an effective member of a group</td>
<td>• Choosing and using leisure options</td>
<td>• Transition management</td>
</tr>
<tr>
<td>• Using whole-brain approaches</td>
<td>• Conflict management</td>
<td>• Preparation for retirement</td>
<td>• Managing sexuality</td>
</tr>
<tr>
<td>• Computer literacy</td>
<td>• Giving and receiving feedback</td>
<td>• Seeking and keeping a job</td>
<td>• Maintaining physical balance</td>
</tr>
<tr>
<td>• Study Skills</td>
<td>• Parenting</td>
<td>• Managing</td>
<td>• Making the most of the present</td>
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<td></td>
<td>• Influencing</td>
<td>• Unemployment</td>
<td>• Pro-activity</td>
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<td></td>
<td></td>
<td>• Home management</td>
<td>• Managing negative emotions</td>
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<tr>
<td></td>
<td></td>
<td>• Setting objectives and action planning</td>
<td>• Discovering interests, values and skills</td>
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<td>• Discovering what makes us do then things we do</td>
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<td>• Developing the spiritual self</td>
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<td>• Helping others</td>
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<td></td>
<td></td>
<td></td>
<td>• Developing the political self</td>
</tr>
</tbody>
</table>

(Source: From Hopson & Scally, 1986 as cited in Bender C. 2002, p. 30)

2.1.2.3 Life Skills Classification According to Gazda, Childers and Brooks

David Brooks, the professor of Counselling & Guidance at Syracuse University, classified the life skills by using an experiential approach. Brooks and the developmental Psychologists (Erikson, 1963; Kohlberg, 1973; Havighurst, 1972) classified life skills into four generic categories. That was
further classified over 300 life skills descriptors. This taxonomy of life skills classification is comprehended in terms of a developmental purpose. (Gazda et.al. 1987, as cited in Bender C. 2002, p.32)

Table 2.2 Taxonomy of Life Skills Classification according to Gazda, Childers and Brooks (1987)

<table>
<thead>
<tr>
<th>Categories of Life Skills</th>
<th>Descriptors</th>
</tr>
</thead>
</table>
| Interpersonal communication and human relations skills | Skills necessary for-  
  ➢ Effective communication, both verbal and non-verbal, with others, leading to ease in establishing relationships;  
  ➢ Small and large group community membership and participation;  
  ➢ Management of interpersonal intimacy;  
  ➢ Clear expression of ideas and opinions;  
  ➢ Giving and receiving feedback. |
| Problem-solving and decision-making skills | Skills necessary for-  
  ➢ Information seeking;  
  ➢ Information assessment and analysis;  
  ➢ Problem identification, solution, implementation and evaluation;  
  ➢ Systematic planning and forecasting;  
  ➢ Time management;  
  ➢ Critical thinking;  
  ➢ Conflict management. |
| Physical fitness and health maintenance skills | Skills necessary for-  
  ➢ Motor development and co-ordination; nutritional maintenance;  
  ➢ Weight control;  
  ➢ Physical fitness;  
  ➢ Athletics participation;  
  ➢ Understanding the physiological aspects of sexuality;  
  ➢ Stress management;  
  ➢ Selection and practice of leisure activities. |
| Identity development /purpose in life skills | Skills and awareness necessary for-  
  ➢ Ongoing development of personal identity and emotional awareness, including self-monitoring, maintenance of self-esteem;  
  ➢ Manipulating and accommodating to one’s environment; |
Sex-role development;
Developing meaning of life;
Clarifying morals and values.

(Source: Gazda et.al. (1987) as cited in Bender C. 2002, p.32)

2.1.2.4 Life Skills Curriculum According to De Jong, et al. (1995)

According to De Jong, The primary principles under life skills education and life skills programmes should be:

- An awareness of diversity,
- Respect for diversity,
- Democratic values and practice,
- An awareness and the implementation of human rights and responsibilities in a democratic society,
- The development of emotional, social, cognitive and physical domains,
- An awareness of contextual demands and trends
- Life skills should be taught as a separate core subject and also integrated into the general curriculum (Source:De Jong, et al. (1995:95-96) as cited in Bender C. 2002, 33).

By critically analysing the above models and classification of life skills, it can be concluded that the important skills to be focussed in Life Skills Education are ability to communicate effectively, Interpersonal skills, problem-solving skills, decision-making skills, creative thinking skills, critical thinking skills, stress management, emotional management, conflict management, time management, self awareness, helping others and many more.

The life skills theory suggests that there are many life skills and their nature vary according to social-cultural contexts and age specific. Yet there are some skills that are integral to any individual to promote the social performance, physical health & mental health and well-being. These core life skills are as following:

- Self-awareness skill
Interpersonal relating skill
Problem solving skill
Decision making skill
Critical thinking skill
Creative thinking skill
Effective communication skill
Skill of coping with emotions
Skill of coping with stress
Ability to empathize (Division of Health WHO, 1993)

Following is the explanation of these skills in detail:

### 2.1.3 Understanding Core Life Skills suggested by WHO

#### 2.1.3.1 Self-awareness

"Know Thyself." - Socrates

According to B.F. Skinner (1981), “A person who is aware of himself is in a better position to predict and control his own behaviour”.


According to Dann (2000), “self awareness is awareness about what one thinks and feels in the present, identify the emotions one presently experiences and manage and direct energy towards accomplishment of goals”.

According to Gardiner and Hatch (1989), “self-awareness gives access to one's own feelings and the ability to discriminate among them and draw upon them to guide behaviour”.

Self awareness is a process of introspection. It is an ability to be aware of one’s own self. In other words, self awareness is a method of exploring our self, our nature, our habits, our characteristics, our goals and aims, our
attitudes, beliefs, values, our inner personalities, our moods, our emotions, our feelings, our beliefs, our abilities and talents, our inclinations towards something and tendencies; and our opportunities and threats.

Self awareness is also known as intra personal intelligence and it is the key to self-Knowledge. Having self-awareness is having knowledge about observable self (appearance, habits, behaviour, skills, competence, talents etc.) and unobservable self (Beliefs, values, attitudes, self image, personality, assumptions etc.). Having self awareness is very essential not only for our personality and character development but also to our personal empowerment.

Here are some of the most important aspects on which we need to build up our self awareness.

1. Self Awareness means having knowledge about one’s self, one’s appearance, language etc.;
2. Self Perception means having knowledge about one’s role and responsibilities towards the society and one’s place in the society;
3. Self Identity means knowing about our uniqueness in the world;
4. Self Image means knowing a mental picture of own through one’s own eye or through the views of another;
5. Self Concept- it involves self-assessment.

_Importance of Self-awareness:_

1. Self awareness is one of the characteristics of emotional intelligence, which is very important to achieve success.
2. If one is aware of oneself (our strengths, weaknesses, opportunities and threats), it helps managing and directing energy towards accomplishment of goals.
3. It also helps in controlling the emotions in right directions to achieve success and for self empowerment.
4. Is essential for our personality and character development.
5. Self-awareness helps an individual knowing own goals, wants, needs, emotions, reactions, personality and behaviours and deciding where you go in life.
2.1.3.2 Skill of Interpersonal Relation

Interpersonal Skill is one’s relationship with other people that can be developed through social interaction between them. Interpersonal skills mean realizing our own responsibilities towards relations. These relationships include one’s relationship with family, friends, and relatives and also a professional relationship. Interpersonal relationship

1. Interpersonal relationship is dynamic in nature as they continuously change during their existence.

2. Some relationships are acquired naturally by birth, some are acquired legally and some are developed slowly and gradually by working and interacting with other people.

The Model of George Levinger (1983) has explained about relationship with five stages as follow on subsequent page:

![Fig. 2.2 Stages of relationship according to the Model of George Levinger (1983)](image)

Explanation of each stage of The Model of George Levinger (1983):

1. Acquaintance: includes physical proximity, first impression, previous relations.
2. Build up: during this stage a person starts to develop care and trust for each other.

3. Continuation: It adds mutual commitment and trust for long term relationships.

4. Deterioration: Person decline with the other due to some reasons such as boredom, bitterness and discontent etc.

5. Termination: it means end of relationship by death or by separation.

Characteristics of a person having good interpersonal skill:
1. Realizes the importance of each relationship, enjoys each relationships of his/her life and finds comforts in all relations;
2. Shares own ideas, views and opinions and expresses his/her feelings to all relations;
3. Shows readiness for benefit and welfare of relationships;
4. Has respect, concern and care for each relations;
5. Can accept own mistakes and also tell others’ mistakes-faults and weaknesses without hesitation;

2.1.3.3 Effective Communication Skill
Communication skill is fundamental among all life skills. Effective communication is most important of all skills whether it be in personal or professional life.

The word “Communication” is originated from the Latin word ‘communis’ means common.

Communication skills comprise of verbal and non-verbal cues, tone and pitch of voice, gesture and facial expressions, and body language that are used to communicate between two persons.

In other words, Effective communication is the group of skills that facilitates a person to transfer information and also to receive and understand the information in same manner.
Fig. 2.3 Communication Skill as a combination of other skills

From fig. 2.3, it is observed that the effective communication is not possible only through verbal communication but also requires combination of other important interpersonal skills such as non-verbal communication, listening skills, presentation skills and writing skills.

Components of Communication Process

The interpersonal communication process includes many elements namely:

i. The Communicators (a sender and a receiver)

ii. The Message

iii. Noise

iv. Feedback

v. Context

vi. Channel

i. The Communicators (a sender and a receiver):

Any communication requires at least two people involved - the sender and the receiver i.e. communicators. It’s a two-way process between a sender and a receiver, the process sending message to and from each other at the same time. It is an interactive process as when one person is talking and the other is listening, simultaneously sending feedback to each other in the form of non-verbal behaviour.
ii. The Message

Message in the communication process means not only the verbal messages but also the non-verbal messages. Here verbal messages include words, speech and information etc. and non-verbal messages include expressions, body language and gestures, tone and pitch of the voice. Non-verbal messages not only express the spoken words but also reveal the emotional attitude behind the message. Non-verbal behaviour can convey additional information about the spoken message and also reveal emotional thoughts and feelings hidden behind the spoken message.

iii. Noise

In a communication theory, noise has a special meaning. Anything that distorts the message or any inconsistencies occurred during communication is called noise. Noise results in failure of intended message. That means the message received is different from what is intended to communicate by the speaker. Some of the examples of noise are language barriers, cultural barrier, physical barriers, use of inappropriate body language, lack of attention, and lack of interest.

iv. Feedback

Feedback is the message/response of the receiver in return to the message sent by the sender that let the sender know about accurately the message has been received. Some feedback responses like verbal responses- "could you repeat that, Pardon, I don't get it” and non-verbal responses like weird facial expressions, changes in posture. These all indicators show that the sender has some confusion or he is uncomfortable with the message. Feedback helps the sender to improve the communication by controlling, modifying or repeating the message.

v. Communication Context

Any communication is subjective to the context in which it takes place. The context decides the other components of the communication required. Communication context here means the place of communication, the status of
both the communicators, the time- when to communicate etc. Examples of CONTEXT are the interaction place where the communication takes place (Office, garden, mall, home, etc) and the social context (the roles, responsibilities and relative status of the participants) also plays important role. The emotional climate and participants' expectations; will also affect the communication.

vi. Channel
In communication theory, the channel is the physical media through which the message is transmitted from one person to another. In case of face-to-face communication, the channels used are speech and vision, while in a telephonic conversation the channel is restricted to speech only.

2.1.3.4 Problem-solving Skill
Problem-solving approach is commonly used in subjects like science and mathematics. A problem-solving skill is the ability to solve the problems efficiently and timely without difficulty. It is considered an essential skill for everybody as the ways to solve problems differ from person to person. There is no one way to solve all the problems.

Stages of Problem Solving
Effective problem solving in general follows a following number of steps/stages.

i. Identification of a Problem
ii. Structuring of the Problem
iii. Searching for Possible Solutions
iv. Decision Making
v. Implementing the decision
vi. Monitoring Feedback
vii. Evaluating the results

i. Problem Identification
This stage involves three processes namely detecting and recognising the problem, identifying the nature of the problem, and defining the problem.
Thinking and analysis are two important tasks of problem solving. Problem identification is a complicated task in itself and starts with brainstorming.

ii. Structuring the Problem
This stage involves: a time-period to observe, careful examination, fact-finding in order to get a clear picture of the problem.

After problem identification, the next task is structuring the problem. It involves gaining more information about the problem in order to understand the problem more clearly. This phase helps to get a more comprehensive picture of both the goals and the barriers with the help of fact finding and analysis. This information helps an individual to arrive at an accurate solution. This stage is very essential for complex problems.

iii. Looking for Possible Solutions:
This stage helps generating a range of possible course of action with little attempt to evaluate them.

Information gathered in the first two phases of the problem solving framework helps to think about possible solutions of the identified problem. This can be done by accomplished brain-storming session in a group, allowing each person of the group to express their views on possible solutions.

iv. Making a Decision:
This phase is most difficult of all the phases of the problem solving process. It involves careful examination of the different possible solutions of action and selecting the best solution by considering constraints such as time and budget. Not to take any decision is also sometimes prove best decision as sometimes trying to solve a problem that leads to many more problems. Thus this stage necessitates creative and innovative thinking on the part of the person who has to take decision.

v. Implementation:
This stage includes acting out on the selected course of action. But if the problem identification was not done properly, problems may arise.

vi. Monitoring/Seeking Feedback:
Once the solution is implemented, it requires monitoring the results and analysing them over a period of time. This stage involves seek getting feedback from people about the problem solving whether the outcomes were
successful. It is desirable to keep a note of outcomes and any difficulties occurred.

A good problem solver:

1. Thinks logically and rationally;
2. Is open to new ideas;
3. Finds a sensible, fair solution quickly;
4. Suggests options;
5. Considers pros and cons to a problem;
6. Analyses each aspect of a problem before reaching to a solution.

2.1.3.5 Decision Making Skill
Decision making is the process of choosing from a number of possible solutions/ideas to a problem. There are many techniques developed that can be used to make decisions based on simple to complex problems. They are intuition, pros and cons method, and the Balance Sheet. Well, structures and informed decisions require certain stages to follow. We all certainly have to make decisions all the time. And it is really difficult to make decisions. People often make decisions using a vote, tossing a coin and choosing a one from the list with eye closed. Some people may not take their decisions by their own or ask advices from others. Among all methods developed, which one would be more appropriate depends on the nature and complexity of the decision.

Stages of Decision Making
The decision making process requires seven stages to follow:

i. Listing all possible solutions/options.
ii. Setting a time limit and deciding who is responsible for the decision.
iii. Information gathering.
iv. Weighing up the risks involved.
v. Deciding on values, or in other words what is important.
vi. Weighing up the pros and cons of each course of action.
vii. Making the decision.
i. **Listing all possible solutions/options.**

This step starts with brainstorming and an individual or a group collects/lists a series of possible solutions/ideas. This step is also named as ‘idea generating’ step. This step is most important step among all steps of decision making process as an individual have to take final decision from the listed possible solutions.

ii. **Setting a time limit and deciding who is responsible for the decision.**

Again setting time frame is also important to take any decision. One should answer the following questions in deciding time limit to arrive at certain decision:

- What is the time limit to make a decision?
- What would be the consequence if one misses the deadline?
- What are the benefits if one makes a quick/fast decision?
- Think whether to make decision is important.
- Will giving more time enhance better decision?
- Who is responsible for the decision?

iii. **Information Gathering**

Next step of Decision making process is information gathering. One needs to have adequate, relevant, accurate and up-to-date information to take a well-informed decision. Otherwise there may be chances to make wrong decision. It is difficult to make decision if there is irrelevant information. If this task is given in a group, then the tasks will be assigned to each member getting information like pros-cons, facilities, consequences and so on.

iv. **Weighing up the Risks Involved**

To make any decision, one needs to think about risk factors in making the decision. One needs to think on the certain criteria to identify risk factors, which are as follow:

- What are the benefits to take right decision?
- What is the cost one has to pay for taking the wrong decision?
• Think on how important is to take decision, whether it is worst or best?
• Think about the risk of the worst decision and decide whether you are prepared to accept that risk.

v. Deciding on Values
Decision making depend most on the value sets/patterns of an individual. Everybody has their own unique set of values. People consider all their values while taking decision which are relevant to the decision. Based on their values they decide which opinion is more attractive and which one less. It would become more complicated when two or more people are involved in decision making process as each person has their own values/patterns. In such cases, it is important to take a consensus.

vi. Weighing up the Pros and Cons
This step involves evaluating the pros and cons of each possible solution by considering the benefits and costs for decision making. The tool ‘Balance sheet’ is used to estimate any solution/option by considering the information available and values.

v. Making the decision
Pros and cons Method is one of the methods to assess each of the possible solutions/options available. There are also other methods available which allow for more direct comparisons between possible solutions. Intuition is such another method to make a decision. Intuition is used when the decisions are simple in nature and the need to make the decision quickly. When a nature of a decision is complicated type, one needs to require a more formal and structured approach. It is better to give a time to reflect on it before publicizing it. Because decision once made and made public, it is difficult to change.

Characteristics of a good decision-maker:
1. Is able to make decisions independently;
2. Has ability to gather information and to analyse from different perspectives;
3. Supports a decision with evidence and strong arguments;
4. Can balance the risks;
5. Is able to evaluate alternatives in order to make informed decisions/choices;
6. Knows that the right decision for oneself is automatic/spontaneous.
7. Makes well informed decisions that is specifically relevant to own situation and that may be against the tide.

2.1.3.6 Creative Thinking Skill
Creativity is the act of exploring novel ways of thinking, being and expressing ourselves.

According to King F.J. et al (2010), the descriptors of Creative Thinking are generating and producing ideas through brainstorming, visualizing, associating relationships, making analogies, inventing, inferring, and generalizing.

Blond’s Encyclopaedia of Education (1969) handles the question of creativity in the sense of flexibility, originality and sensitivity in response to ideas or situations”.

The New Encyclopaedia Britannica defines creativity as "the ability to make or otherwise bring into existence something new, whether a new solution to a problem; a new method or device or a new artistic object or form.

According to Rogers (1972), “creative process is the emergence in action of a novel relational product, growing out of uniqueness of the individual the one hand and the materials, events, people circumstance of life on the other.”

Edward de Bono (1992) has brought in three diverse concepts in his definition of creativity. He says that at the simplest level, creativity means, and “bringing into being something that was not before. The second aspect his definition raises is that the new thing must have "value"; and to these, he adds
a third element, namely that it must include the concepts of "unexpectedness and change".

*Importance of Creativity*

- It enables to create alternatives.
- It leads to formation of hypotheses. Creativity helps to solve the problems and make decisions in the best possible way.
- It helps developing ourselves and giving distinctiveness to us in the world.
- It allows us to express our greatest possible self on a daily basis.
- It leads to improved business decisions, or simply more job satisfaction due to new ways of thinking.

*The rules of brainstorming*

Brainstorming is the best technique to encourage creative thinking. The rules of brainstorming include:

- Everyone must speak
- Everyone's and all ideas are equally respected
- Don’t allow criticism on other people's ideas

*Ways to run brainstorming sessions:*

- Following on an initial idea, the group jump nourish to generate new ones, until the group reaches to a new and unique idea. For generating further ideas, the facilitator must ask questions and make criticisms. The initial ideas should be explored and further investigated to create new ideas.
- Encourage participants to generate distinct ideas that can then be grouped, sorted and themed at the end.

*2.1.3.7 Critical Thinking Skill*

Critical thinking is the ability to think rationally, logically, reflectively and independently. Critical thinking is also known as logical or analytical
thinking, involves a process of determining authenticity, accuracy of the value of something. It is a process that seeks reasons.

King F.J. et al (2010) explains about the descriptors of critical thinking- a rational outlook, logical inquest, problem solving, attitude of suspended judgement, evaluative decision or action; skilful, responsible thinking that facilitates good judgement, relies upon criteria, is self-correcting and sensitive to context; scepticism, inquisitiveness; questioning of beliefs, aims, definitions, conclusion, actions, appraisal of frameworks or sets of criteria by which judgements are made.

According to Dhand (1988), critical thinking is a process of evaluating statements people, ideas, events, data, materials and arguments, experiences and problems that humans face in life.

Smith (1990), states, critical thinking is the understanding of the meaning of statements, judging ambiguity, judging whether an inductive conclusion is warranted and judging whether statements made by authorities are acceptable.

Mayer (2002) states, critical thinking, involve making judgments based on criteria and standards. According to Mayer, evaluation includes two cognitive processes namely (1) checking and (2) critiquing

A critical thinker:

- Has clear and visionary thinking;
- Has free and rational outlook, good reasoning power and logical thinking;
- be open to new ideas;
- Have Problem solving and decision making ability;
- Ability to make a decision from a wide range of possibilities.
- Has good judgement power;
- Is self reflective and self-correcting;
- Is argumentative (Able to identify, build and evaluate arguments);
be skilful;
Have inquisitive mind;
Has scepticism about any statement and propaganda;
Challenges fallacies.

**A critical thinking skill helps an individual to:**

- Understand the logic behind each ideas and its connection to each other
- Identify the relevance and importance of ideas.
- Identify, construct and evaluate arguments.
- Identify contradictions and common mistakes in logic.
- Solve problems systematically.
- Make decisions.
- Introspect and reflect about justification of one's own beliefs and values.
- Help people to be more inquisitive,
- To prevent people from feeding their mind on falsehood, to detect propaganda and help people build up a free, rational and self-directed mind.
- Decide on what to accomplish and then make a decision from a series of alternatives/possibilities.

2.1.3.8 Skill of Coping with Emotions

The word ‘Emotion’ is an english word which is derived from the word ‘emouvoir’, is originated from the Latin word ‘emovere’, where e-b (variant of ex-) means ‘out’ and movere means ‘move’. Emotion is unconscious and spontaneous to any individual. An emotion is a mental- psychological picture related with a wide range of feelings, thoughts, and behaviours.

The meaning of ‘Coping’ is the constant mental/cognitive and behavioural efforts made by an individual to deal with the internal or external demands that are appraise beyond an individual’s resources.
It is a complex psychophysical process, which causes a positive or negative psychological or physical response. Basic emotions are identified as:

- Fear
- Sadness
- Happiness
- Anger

Among these four, three: fear, sadness and anger are negative emotions and one is positive emotion and that is happiness. Other emotions, such as, love; guilt, curiosity, etc. arise from these four basic emotions. These basic emotions are responsible for the feelings experienced by the person. Emotional disturbance causes a visible physical response in the body, which are often perceived as sensation in the body such as shivering, anger, depression, sleepless etc.

As Gross and Levenson (1997) note, when emotional suppression is chronic, it can impair thinking, hamper intellectual performance and even interfere with smooth social interaction. Positive attitude and self-knowledge will help about how to manage our emotions positively to make right decisions. Emotions are an important aspect of our lives; the only thing we require is emotional control, i.e., some sort of tempered balance and wisdom.

2.1.3.9 Skill of Coping with Stress

Stress caused as a result of demands placed on physical or mental energy. Many things that happen to us can cause feelings of stress and anger. The three types of stress can be described as follows:

- Frustration – When one wants to do or ask something and they cannot do so because they are blocked by others or by the situation as a whole, frustration occurs.
- Conflict – When one wants to make a difficult choice, conflict occurs.
- Pressure – When one is forced to do something s/he does not really want to do, that feeling is pressure.

*Signs of stress*
• A person becomes irritable, loses temper, gets angry and frustrated even on small things.
• Thoughts going round and round in the mind of a person.
• A person suffers from headache or other pains, migraine.
• A person suffers from indigestion, diarrhoea, stomach upset.
• A person feels depression, fatigue, feels anxiety, sleeplessness/insomnia, mood swings, temperamental, weepy.
• A person cannot concentrate feeling.
• A person loses his/her confidence and self-esteem, out of control.
• A person traps in the diseases like high blood pressure, heart disease.

Mechanisms to reduce stress
• Breathing exercises, yoga, meditation;
• moving away from the cause of the stress;
• going for a walk, run, or play sport;
• listening to music;
• a good diet;
• Be with people who love and care for you;
• Be aware of self talk- avoid negative self talk and develop positive self talk.

Stress is an inevitable part of life. Family problems, broken relationships, examination pressures, the death of a friend or family member are all examples of situations that cause stress in persons’ lives. Stress in limited doses and when one is able to cope with it, it can be a positive factor since the pressure forces one to focus on what one is doing and respond accordingly. However, stress can be a destructive force in an individual’s life if it gets too big to handle. Therefore, as with emotions, young people need to be able to recognize stress, its causes and effects and know how to deal with it.

2.1.3.10 Empathy
The term ‘Empathy’ is misunderstood with the term ‘sympathy’ more often. But it is the most advanced of all communication skills. It is an advantageous skill to oneself, others and society.
Definition:

'Empathy is the ability to see the world as another person, to share and understand another person’s feelings, needs, concerns and/or emotional state.'

Empathy is a noble and selfless act; it facilitates an individual to deal with people and relationships with people. Empathy comes natural with most of the people at some level as empathy is more related to interpersonal skills. But it can also be developed with some practice. A key behaviour for being empathetic, idioms such as ‘keeping yourself in another’s shoes’ and ‘soul mates’ are used. Everyone has their own (different to others) perspectives based on their values, culture, beliefs, culture, religion and experiences through which an individual perceives the world. So to be empathetic, one has to see the world from their perspective, which requires imagination to understand it and to deal with them.

*Being empathetic requires two basic components:*

- *effective communication* and *a strong imagination*;
- Shared experiences.

### 2.1.4 A Brief Summary of Life Skills and its Indicators

After analysing each life skills and its theoretical aspects, a brief summary was carried out and life skills indicators were found out. Also Hanbury Clare & Malti Tinal (1990, p. 31) had highlighted the life skills indicators in *MONITORING AND EVALUATING LIFE SKILLS FOR YOUTH DEVELOPMENT*. That also helped the investigator to construct the Life Skills inventory which was used as pre life skills and post life skills to assess initial life skills attributes and final life skills attributes among the pre service teachers. A brief summary of life skills and its indicators is highlighted below.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Life Skills</th>
<th>Indicators of life skills in a person</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self Awareness</td>
<td>• Has awareness about own strengths and</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Can describe themselves in positive terms</td>
<td>Can describe a network of important relationships</td>
<td>Has a vocabulary for feelings and thoughts</td>
</tr>
<tr>
<td>Can identify and describe a positive achievement of own</td>
<td>Can articulate what relationship is</td>
<td>Respects others’ opinions even when different from own</td>
</tr>
<tr>
<td>Can describe things that can realistically be changed in oneself, such as abilities, learning new things, developing better interpersonal skills</td>
<td>Can describe what is needed to maintain relationship</td>
<td>Can express oneself in a variety of ways (art, music, poetry, etc.)</td>
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<td>Can set and achieve goals and show accountability for one’s actions</td>
<td>Can appreciate the ups and downs of relationships</td>
<td>Behaves cooperatively in a group</td>
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<td></td>
<td>Can describe characteristics of different types of relationships</td>
<td>Asks thought provoking questions</td>
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<td></td>
<td>Works with others to achieve a common goal and to compromise when needed</td>
<td>Is able to talk about the roles, responsibilities, and drawbacks of own gender in a way that shows strength and pride</td>
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<td></td>
<td>Takes on tasks to help the community</td>
<td>Is able to express own ideas and perspectives even when different from one’s own</td>
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<td></td>
<td>Helps others at a cost of oneself</td>
<td>Responds to proactive question with own views, ideas, and confidence</td>
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<td></td>
<td>Can describe the importance of others in their life and why these others are important</td>
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<td></td>
<td>Able to give and accept other’s gifts (it may be in the form of time too)</td>
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| 5. Decision-making Skill | • Analyses each aspect of a problem before reaching to a solution  
• Can balance the risks  
• Is able to gather information and access options in order to make informed decisions/choices  
• Supports a decision with evidence and strong arguments  
• Listens effectively  
• Is able to make decisions independently  
• Knows that the right decision for oneself is automatic/spontaneous.  
• Makes an informed decisions that is specifically relevant to own situation and that may be against the tide  
• Has the ability to analyse from different perspectives |
|--------------------------|----------------------------------------------------------------------------------------------------|
| 6. Critical Thinking Skill | • Thinks about how to undertake a task  
• Is able think before taking action  
• Reflects on own confidence and competence  
• Reflects on own strengths and qualities  
• Don’t blame others for things that go wrong with them |
| 7. Creative Thinking Skill | • Demonstrates out of the box thinking  
• Has original/new ideas  
• Has ability to develop new ideas/solutions  
• Has unusual/unexpected thinking  
• Is imaginative  
• Has good sense of humour  
• Follows intuition to find solutions  
• Be able to create a vision and to project oneself into the future |
| 8. Managing Stress | • Know what stress is and the stressors  
• Can differentiate between positive and negative stress  
• Has an awareness of how we physically respond to stress  
• Has awareness about what causes stress to him/her  
• Has ideas about how to cope with stress |
| 9. Managing Emotions | • Is self-controlled  
• Is self-disciplined  
• Is able to express own feelings to the right person  
• Can confidently show his/her disagreement to others  
• Has knowledge about how to cope with emotions |
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<th></th>
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<th>Do not react spontaneously but think before act</th>
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| 10. | Empathy | Is Able to understand other’s feelings and thoughts  
| | | Feels with another’s feelings  
| | | Is able to express why helping others is important  
| | | Finds satisfaction in helping others  
| | | Is able to respond sympathetically |

2.2 Review of Previous Studies

2.2.1 Importance of Review of Previous Studies

Borg and Gull (1979: 98) states that “The review of the literature in Educational research provides you with the means of getting to the frontier in your particular field of knowledge… If one fails to build the foundation of knowledge from the review of the literature, the work is likely to be shallow and naive”.

The detailed study of the researches done in the same area helps the research builds the background of his research and helps him to disclose the uncovered areas of research and probable difficulties also.

Review aid the researchers acquire adequate knowledge of the research problem and helps in selecting proper methodology and techniques. K. G. Desai (1997: 306) emphasizes this as it helps in ‘development of the problem’ and ‘development of the research insight’ in the researchers.

2.2.2 Reviews of Related Studies

Life skills Education is not a new field in Indian education. By now it has become a part of school curriculum and Teacher education Institutes in India at certain level. Earlier it was included as one of the component of Adolescent Education in India. As the problems existing in world including India were more related to youth particularly adolescent group in history, the life skills were seen as a means to improve their health related issues such as Preventing HIV/AIDS, adolescent pregnancy and their sexual health related problems, child abuse and violence, drugs and alcohol prevention. Agencies like WHO and UNICEF developed modules for inculcating the life skills as one component of Adolescent education at school level. The World Health
organization (WHO) has initiated NIMHANS to impart Life Skills Education to citizens of the country. In this direction Government and non-government organizations and Different agencies have developed numbers of projects and programmes all over the world. UNICEF has also carried out various projects and programme of life skills in many countries over worldwide.

The researcher has tried here to review the programmes and projects carried out by UNICEF, WHO and other agencies. Also she has reviewed a number of studies conducted in India and outside the India. The studies reviewed were classified under three categories:

Category 1: Research Studies conducted related to Prevention of HIV/AIDS
Category 2: Research Studies conducted related to reducing Drug and Alcohol
Category3: Research Studies conducted related to Life Skills Education/Training

**Category 1: Research Studies conducted related to Prevention of HIV/AIDS**

Studies conducted by Meyer and Steyn (1992), Pugalenthi and Jothy (2006), Azhar and Adhikary (2008), Srinivasan (2009) were focused on prevention of HIV/AIDS.

Meyer and Steyn (1992) carried out a pilot programme on Acquired Immune Deficiency Syndrome (AIDS) and life skills training. The training programme was implemented in 12 schools of Pretoria, Cape Town, and Soweto (South Africa). Data were collected through pre and post questionnaires and group interviews. The purpose of the programme was to provide accurate information to adolescents about AIDS prevention behaviour and tolerance towards people infected with the Human Immunodeficiency Virus (HIV). The program consisted of 10 modules, each module was planned with specific teaching objectives; suggested teaching methods, teaching aids, and learning activities; and suggestions for additional reading. Issues such as puberty and adolescence, relationships (e.g., peer, family, opposite sex); love, human sexuality, decision making, sexually transmitted diseases (STDs), and HIV/AIDS were addressed in the modules. Findings showed that students
improved in AIDS-related knowledge topics and acquired positive perceptions regarding use of condom, realistic perceptions regarding susceptibility, the seriousness and outcomes of HIV/AIDS. It was found that peer pressure forced them to engage in sexual activity.

**Pugalenth and Jothy (2006)** conducted study on life skills Education on Sexual Behaviour HIV/AIDS. The study attempted to examine the impact of Life Skills Education on HIV/AIDS attitudes of the men and women. Along with that the study also tried to analyse the attitude of the people belonging to specific socio-economic and other background characteristics. The study also included objectives like analysing variations of the prevalence of HIV/AIDS among men and women in the reproductive ages and to examine the sexual behaviour of women and risk of HIV and Life Skills education.

**Azad and Adhikary (2008)** carried out study to prevent HIV/AIDS among the adolescents in 2007-2008. The research design employed for the study was Development and Experimental Design. The training material to train preventing HIV/AIDS was developed. The sample selected was 20,000 adolescents of New Delhi. Pre-test and post life skills were used to find out effectiveness of the programme. The findings of the study revealed that the intervention programme proved effective and the adolescents showed positive approach towards training.

**Srinivasan (2009)** has carried out Adolescent Health and Development Project. The sample of the study consisted adolescents of Convict home of Sriperumbudur as sample. The study employed experimental design. The tool used to collect data was questionnaire. T-test was used as data analysis technique for the study. The study found that the adolescents have enhanced their knowledge and skills to prevent health related issues drug abuse, unsafe sexual behaviours, HIV/AIDS and increase risk of violence.

**Category 2: Research Studies conducted related to Drug and Alcohol**

Research in this category were focused on to reduce consumption of alcohol of youth, to reduce drug, to make responsible and wise decisions about their
sexual reproductive health, and to sustain hygiene and health carried out by NIMHANS (1998), NIMHANS (2007), Rajiv Gandhi National Institute for Youth Development (RGNIYD, 2009), The West Bengal Voluntary Health Association (WBVHA), which are discussed in detail as follows.

**NIMHANS (1998)** has conducted study on alcoholic epidemic in Karnataka. The study was carried out with the objectives to find out status of using alcohol and drug and to train peer educators to reduce consumption of alcohol in Karnataka state. The researcher selected those participants from urban and rural Karnataka who showed voluntary readiness. The study revealed that the problem was more chronic and serious in rural Karnataka. The trained educators tried to create awareness among alcohol users to reduce consumption of alcohol and drug abuse.

**NIMHANS (2007)** carried out a survey to reduce drug abuse among street children in Bangalore. 281 children were identified as drug consumer. The project was found helpful to sensitize children to reduce the drug consumption. In 2008-2009, NIMHANS got fund from the Centres for Disease Control and Prevention (CDC) to develop the Life Skills HIV prevention programme. This study was a randomized –controlled trial of life skills by National Institute of Health (NIH). All team members were trained by the original group facilitators. Life Skills programme is based on empowerment theory. Community- participatory approach was used to develop the Life Skills Programme. A multidisciplinary research team guiding the members of community (i.e., young Trans women), tried to develop a holistic, theoretically-driven intervention curriculum (i.e., “life skills”). The results of the pilot study were encouraging as enrolment, and both retention and session attendance were high (84% of the participants were retained over the study). The acceptability of the programme stood very high as more than 90% participants indicated that they would recommend the curriculum to other Trans women. Their understanding regarding unsafe sex increased due to intervention.
Rajiv Gandhi National Institute for Youth Development (RGNIYD) (2009) carried out project on youth empowerment in collaboration with Students Partnership Worldwide. Life skills Program was implemented on school students. The objectives were to empower young people in rural government schools and communities to develop decision making power, to make responsible and wise decisions about their sexual reproductive health and to improve the life skills and livelihood opportunities. Rajiv Gandhi National Institute for Youth Development (RGNIYD) (2009) had used random sampling technique to carry out this project. Questionnaires were administered and data were analyzed quantitatively. The findings show that the youth became sensitive taking decision confidently for betterment.

The West Bengal Voluntary Health Association (WBVHA) has taken the challenge of introducing it as adolescents Health Education Project to 120 schools, 80 teachers and 7200 students in 4 districts of West Bengal – Calcutta – Bankura – Darjeeling and Dakshin Dinajpur. By popular demands from the parents, teachers, students, and NGO’s WBVHA is expanding its experiences in schools based health promotion beyond the coverage of HIV/AIDS and Malaria Prevention and Control. The WBVHA project aimed to add knowledge and skills on adolescents’ problems and management through an effective and sustainable intervention. The intervention proved effective and through its project, WBVHA emphasised the importance of personal hygiene, cleanliness, nutrition, understanding psycho-physiological changes during adolescents, counselling for adolescents, self esteem, life skills, reproductive health and HIV/AIDS; gender issues and healthy living.

Category 3: Researches conducted related to Life Skills Training/Education
Sohani (1992) carried out a study to develop a training programme for the student-teachers to develop their problem solving skills. The major objectives of the study were to design and develop a programme, to implement and to evaluate the programme for problem solving skills. 116 Marathi medium students were selected as a sample of SNDT College of Education of Pune. Raven’s standard progressive matrices, Torrance test of creative thinking and Problem Solving Skills Test were constructed by the researcher. Data analysis techniques such as ANOVA and ANCOVA were used for data analysis. The study revealed that the experimental group was found having higher problem solving skills as compared to the control group.

Botvin (1985) has developed a curriculum based on Life Skills Training (LST). The LST incorporates a curriculum to teach a set of personal and social skills in order to improve youth’s general competence and reduce potential motivations for substance use. He reported that by LST program, 50% reduction in cigarette use among junior high students and it also has a significant impact on the attitudes relating to smoking, alcohol, and marijuana use. By participating in the program, the student’s assertiveness, social anxiety, self esteem, decision-making and social coping skills have also developed.

Greene (1988) came out with instructional principles which could be of help to the educators and mentors to induce effective life skills behaviours among their students. In this study he tried to provide support to learners to live, discover and practice better life skills. The teachers were asked to identify the student who seemed helpless. For the child who doesn’t have friends, does
poorly in sports, has difficulty in learning, or who steals/ lies/ or bullies, should be identified and treat them with the best awareness models. The results were encouraging as this approach brought positive changes in students’ skills.

**Hamburg (1990)** carried out a study entitled Preparing for Life: The Critical Transition of Adolescents. The study was conducted in two phases. A preliminary phase started with the explanation and discussion of early adolescent development & life skills and core elements of life skills training. The life skills training was comprised of three different programmes: (1) School-base Interventions focused on training on problem solving, social competence, a drug and alcohol project and interventions, linked school and community programmes; (2) the summer training and education programme; and (3) promising new conceptual models including the school development programme, a Rochester school experiment, community prevention of alcohol and tobacco use, the violence prevention project, and research leading to an anticipated middle-school violence prevention curriculum. The findings disclose the need for dissemination of life skills awareness and life skills training for middle and junior high school students. The thrust life skill areas on which training required were survival skills, interpersonal skills, living in a complex society in formally and systematically manner. The study recommended implementation of preventive programmes for middle schools.

**Halter and Lang (1994)** designed guidelines to help adolescents develop skills which will encourage them to make health and positive choices about life. In addition, it was designed such a way that it help in assisting adults, parents and teachers too, as they guide young people through the process. The book used a series of written exercises designed to help organize the students’ goals and aspirations for life. The subjects were divided into five sections; appreciating differences, personal development, family and values, making choices, and making difference. The guide contained 96 one-hour lessons, including 18 students – driven classes which were scheduled to occur once a week. Topics in the text included gender equity and cultural diversity. The stages of personal development were examined in depth, with special attention
given to self-esteem, creating dreams, and skills development (communication, achievement, decision making, and time management). The importance of personal integrity and personal health were also highlighted, along with the need to maintain healthy relationships with friends and family. Since choosing a career was among the more important decisions one make, a section on career planning was offered and supplemented by a discussion of the importance of money management. Finally, ways that students can create change and address world problems were explored. Numerous worksheets and exercises were used to help students learn these solutions.

Davies and Cohen (1995) explored the preventive activities for people at risk incorporating educational and psychological nature – connecting methods and materials. The study carried out in two parts. The first part of the programme focused on high-risk high school students with low self-esteem. The second part of the programme was carried out in three phases. This part focused on the aim to reduce chemical use and irresponsible relationships in at-risk students. Phase 1 of this part carried out within 3 weeks focusing on activities regarding play and creativity in natural environment. Phase 2 incorporated activities to reduce stress and attune them closer to nature. Phase 3 incorporated activities to practice teamwork, problem solving, fighting with fear and stress coping mechanisms. The purpose was to reduce stress, make them experience empowered, make them experience joy and trust. Results of the study were found tremendously positive. Bark Scale of self esteem was used to record self esteem index. And the scores were recorded increased and higher. It was found that the programme can lead to ecological sound citizenship education preventative for chemical, food, and social environmental abuse if the artificiality programmed stress activities are replace with daily stress situations.

Paul et al. (1995) conducted a study of teacher preparation programme to assess the extent to which these programmes repair conditions for teaching credentials to teach critical thinking and problem solving in elementary and secondary schools. The investigator took assistance from Sonama State University to design interview protocols for telephone interviews. A Sample
for the study was consisted of 38 public colleges & universities and 28 private universities. The major objectives of the study were (1) to assess the current teaching practices; (2) to identify exemplary teaching practice that enhances critical thinking skill; and (3) to develop policy recommendations based on the findings of the study. The results of the study disclosed that teachers needed to develop clear understanding of the basic concepts of critical thinking as very few have a comprehensive sense of how to promote critical thinking while teaching the content subjects of discipline. Recommendations made by the researcher that students should be given assistance to define problems, develop certain specialized concepts. At the same time they need to be trained in giving reasons for conclusions to arrive at, in data interpretation, think in the terms of others’ points of view and so on.

UNESCO with the MHRD (December 1998) organized a workshop on life skills education. The main purpose of the workshop was to sort out an approach where life skills can be integrated with the Non Formal Education curriculum so that the children deprived of formal education can cope up with the challenges of day to day life situations. The programme had defined set of goals as: to involve the staff, parents, peer group and community to help the out of school children develop positive qualities; to ensure the young ones are committed positively to their families, to help them solved problems co-operatively and to allow the learners to handle negative pressures from their peers. It was taken in to account that life skills are taught well incorporating it with health and life issue education. The workshop concluded that the need of life skills is realized by everybody and such programmes need to be developed to integrate it with the Non Formal Education curriculum.

Nava (1998) in a study entitled the self perception of personal skills between traditional versus non-traditional college students concluded that there was no significant difference between the traditional and non-traditional college students for the self perception of personal life skills. The personal life skills measured were self esteem, assertiveness, drive strength, decision making, time-management, aggression and defence by using the personal skills map.
Bhave (1999) carried out a study on life Skills Programme to reduce levels of risk factors in adolescent group and young people. He has made an experimental study and developed a program. Junior colleges of Mumbai were selected purposively as sample and training was provided to teachers to provide Life Skills Education in the colleges. The questionnaires were administered for collecting data and qualitative techniques were used to analyze the data. The study revealed that the trained teachers were able to impart Life skills education to students. It showed that the adolescent girls have shown their interest to learn the life skills and their life skills were enhanced too. The study suggested all the teachers should be imparted life skills training of junior colleges.

Magee (1999) conducted a study entitled the peace leaders: a descriptive study of the life skills gained through resolution training. The findings concluded that the students who had competed training in the citizenship and law-related conflict resolution program had life skills of communication, problem solving and mediation in real life situations. All the students reported that the conflict resolution training and a medium to significant impact on real-life situations. The development of communication skills involved in active listening, self expression and developing as a public speaker. The attaining of life skills has a positive impact on their abilities of decision making, problem solving and conflict management with others.

Waltemire (1999) conducted a study entitled a kaleidoscope of opportunity: teaching life skills. He found that training of life skills to the students between the ages of 17 and 19 had lead to decrease in the distress despair among them. This research reported the significant differences between the self perception of traditional and non-traditional college students personal life skills.

Meghani (1999) carried out a study of teaching learning strategy to develop critical thinking in students of standard XI using Psychology subject as content. The researcher designed a tool to measure critical thinking of Std. XI students and to measure the effectiveness of the evolved strategy for teaching-learning critical thinking. The sample selected for the study were students of
Std. XI English medium students from Navrachana Higher Secondary School affiliated to Central Board, who had opted for Art Stream and had Psychology as one of their subjects. Methods like case study and Socratic Questioning were used in order to develop critical thinking. The investigator had prepared a tool to measure critical thinking skills before and after intervention programme. It was followed by qualitative and quantitative analysis in order to measure effectiveness of the evolved strategy for teaching learning critical thinking. The results of the ‘t’ test, in quantitative analysis, revealed that the evolved strategy for teaching learning critical thinking had been effective in developing critical thinking among students.

**Buhs (2000)** conducted a study entitled programme evaluation of the American Indian Life Skills Development Curriculum with American Indian and Caucasian adolescents. He found that after Life Skills Training Course, there was change in their self-esteem and depression. The pre-test/post life skills of self esteem and depressive symptomatology were administered and a three-month follow up of students was done. Qualitative analysis indicated that the students learned about the areas covered in the training programme, their self esteem scores increased and depression decreased between pre and post test and again between the post test and follow up the depression again increased. Students did not learn significantly more about problem solving, including what to do if in a situation with suicidal individual. According to statistical analysis, insight ratings indicated that students did not gain the insight regarding their emotions, self-esteem, problem solving and self destructive behaviour up to the limit that was required.

**Chopra (2002)** constructed a Self-instructional Module to enhance communication skills of college principals. The prime objectives of the study were to undertake role analysis, needs identification of college principals in communication and to design and evaluate a self-instructional module to enhance communication skills of college principals. The sample for the study comprised of 50 college principals through probability sampling, namely, multi-stage cluster sampling. A role analysis schedule, needs assessment schedule and self-instructional module were used as tools for the study. For
the purpose of data analyses measures like frequency counts, percentage responses and content analysis were adopted. The feedback analysis revealed that the college principals found the communication module useful in developing their communication skills and language competence. The study also claimed that the module with appropriate modifications could be of use to various groups like educational administrators, managers, or leaders. The module could bring improvement in communication skills which would enable the recipients to perform at work in meaningful and effective manner.

Pathak (2002) had prepared a Creativity Program for Pre-Service Teacher Trainees at Primary Level and evaluated its Effectiveness. The objectives of the study were to construct and standardize a creativity test for pre-service teacher trainees at primary level, to develop creativity program and evaluate its effectiveness for pre-service teacher trainees at primary level. The study adopted Pre-test post life skills experimental and control group design. The sample for the experimental group comprised of 46 trainees from Rajpipla, and the control group consisted of 43 trainees from Santrampur. The investigator had designed the creativity program and a creativity test comprising verbal as well as non-verbal form. Variety of tasks and activities focusing imagination, novel ways of using things etc. were used for the design of verbal form of the test. The non-verbal form of the test included three types of activities, namely, picture construction, picture completion and circles and rectangles. For the quantitative analysis statistical techniques like ANCOVA and two-way ANOVA were employed. The results of the study claimed to develop creativity components like fluency, originality, flexibility and so on. Hence, the primary pre-service teacher trainees found to develop their creativity through this program.

Kumari (2002) conducted a study entitled development of life skills with Mathematical education. She revealed that due to technological revolution, the mathematical abilities like to explore, conjecture, reason and communicate are needed in every field of life. The problem solving situations were important workable medium to link mathematics with life skills such as problem solving behaviour of students. The researcher found that middle class students have
developed problem solving skills by learning mathematics and students were using this skills to deal with real world environment and experiences.

**Prasad (2002)** has carried out a study on advocacy and capacity building through Life Skills education for adolescents. The main objective of the study was to design a school based program for Mental Health and Life Skills Education called ‘Expressions India’ to create awareness, responsibility and empowerment amongst adolescents, their parents and teachers. It was focussed on to sensitize the school going adolescents about relevant psychological issues, to promote the Life Skills and prevent the difficulties associated with behavioural and learning problems. The findings revealed that adolescents, parents and teachers were become sensitized about Life Skills and adolescents had enhanced their Life Skills in a significant manner.

**Rowland (2002)** conducted a study entitled ‘every child needs self-esteem: the creative drama builds self-confidence through self-expression’. This study illustrated how creative drama is a powerful way to learn, to strengthen a self concept and to increase self-esteem for socially deprived children under the direction of trainer outside the classroom in a structured, informal setting. An experiment revealed how natural pedagogy honoured the individual experience and preserved the child’s essential freedom to play, to wonder, to experiment and to invent, allowed children to flourish and to become stable and successful. This theory was applied to children in a creative drama programme. Through the magic of theatre, using the techniques of creative drama, children’s creativity; self-esteem was developed and cooperation and responsibility were learned. These results led to the creation of a child play-based programme those nurtured children’s creative expression and the development of a handbook to enable others to replicate this programme in their communities.

**Sharma (2003)** studied on measuring life skills of adolescents in a secondary school. The major aim of the study was to develop a scale to measure life skills and to assess the levels of life skills among adolescents of a secondary school at Kathmandu. Findings revealed that most of the teachers were not
aware of the concept of life skills. Maternal education was significantly associated with higher life skill levels in adolescents. Factors such as maternal education, connectedness and family support had influenced the level of life skills in the adolescents.

West (2003) studied contextual variability in the transfer of problem solving skills. The purpose of this study was to describe how individuals learn from examples and retrieve known problems to solve new ones. Ninety-four participants from the university of Florida and surrounding community participated in 3 studies that employed transfer and similarity-matching tasks to investigate relationship between contextual variability in practice and a training group given contextual variability in practice was more likely to solve transfer problems accurately and recognize principles embedded in novel problems compared to controls. Moreover, participants who did not receive contextual variability in training but solved a simple transfer problem showed improved transfer skills and recognition of embedded principles; was believed that variation across surface features in problems de-emphasized utility in problems used to categorize problems and to solve the problems.

Davis (2004) found the impact of life skills training program on the behavioural and cognitive factors of psychological well being of Black and White college students. 376 Black and White college students participated in the program. Life Skills training program continued for twenty sessions in a month and each participant completed the college self-expression Scale. The self-perception profiles for the college students were collected. The four dimensions included in the data analysis were Scholastic competence, physical appearance, social acceptance, and global self-worth. Psychological well being was measured as anxiety and depression with the use of college adjustment scales. Black students were scoring higher than White students on the Assertive Scale that shows Cultural differences were evident in levels of assertion. The findings revealed cultural differences regarding associations with assertiveness and self concepts to the amount of anxiety and depression experienced by the students. According to data inferior global and scholastic self concepts among white college students were significantly associated with
higher levels of anxiety and depression. The issue for Black college students was identified as social acceptance, which held a significant negative association with anxiety and depression. However there was improvement in the self concept, depression and anxiety levels of students with training program.

**Shangold (2004)** conducted a study of life skills training program for youth of high schools of Mississippi. The program was provided to 530 high school students. The life skills training program included training of coping skills, social skills and behavioural skills. The results revealed significant development in coping skills for anxiety and depression; interpersonal and cooperative skills; and hostility skills. The programme proved effective for majority of the sample participants.

**Shenoy (2005)** developed a secondary School Curriculum for English medium High School students of Mumbai with reference to Develop Skills for Crisis Management. The objectives of the study were to develop a model curriculum to train students to handle crisis in their personal life, family life, school life, community life and national life. The sample comprised for this study was 100 students of std. VIII, IX and SSC Board from each 15 English medium secondary schools from Ghatkopar and Chembur with the help of suitable sampling techniques. Tools used for data collection were Questionnaires, Interviews and Observations and self-prepared by the investigator. The Model Curriculum designed by the investigator was covering the subjects such as Languages, History, Geography, Civics and Economics, Science, Mathematics and especially on Crisis Management. The developed curriculum was quite interesting, appealing, realistic, yet challenging. The Study made imperative recommendations for framing the curriculum for teachers, NCERT, SCERT, CABE, Education Department, and Teacher Education at State and Central levels.

**Kulikov (2005)** in a study found the impact of competitive youth sport participation on the social skills and competitive skills development. The sport chosen for the study was swimming and a qualitative case study was
employed. The objectives were like achievement values; achievement domains; achievement goal orientation; social learning; and competition spirit. The responses of the participants revealed that they considered sport as a tool which kept them engaged in positive social learning experiences resulting in the development of positive character attributes and transferable life skills. Along with that, parents of the participants also had the same belief that involvement in sport helps in building positive character attributes and transferable life skills. In addition, it emerged that parents believed that sport was very helpful for the development of goal orientation; achievement motivation; social learning and competition spirit among their children and they also demonstrated good parent-child behaviour.

Phelps (2005) tried to compare personal self-reported perception development of leadership life skills among Louisiana High School 4-H leadership activity participants. The population targeted for the study was all high school students who participated in either the 4-H Junior Leader Club (JLC) or the Character Counts (CC) peer-teaching programme. A survey method was used to collect data. The tool-surveys were mailed to 321 high school students. Only 165 surveys returned. The results revealed that there was hardly any difference existed in the perceived personal and leadership life skills development among the three groups on the Leadership and Personal Development Inventory (LPDI).

Moeller (2005) investigator Victor Moeller contended that authentic learning begins only when teachers challenge students with real questions that demand solutions. Here, he aimed to help teachers of the next generation develop various life skills i.e. skill of critical thinking, self awareness skill and practical skills. Moeller believed that anyone can acquire a life-long education from these skills.

Sterling (2006) explored the influence of a life skills course on athletic identity and career decision self-efficacy of collegiate student athletes. The study utilized a pre life skills-post life skills control group design. The significant differences were found between the treatment and control sports
groups on career decision self efficacy and athletic identity. The results also indicated that an alarmingly high percent of student athletes anticipate a professional sports career. The unrealistic plan may lead to athletic career termination difficulties. This let to need of an extra training hour to the life skills course, which would allow for a career development component.

The Department of Adult and Continuing Education (2006) organized an International Workshop on life skills Education for Youth Development in the University of Madras with the support of the UGC. The major aims of the workshop were to design and develop training module on LSE, to prepare learning modules for integrating Life Skills Education in the college curriculum, to come out with Training Manual on LSE along with training methods and programmes for colleges and community. The core points discussed in the workshop were that life skills are vital for young people to help promote mental well being and competence as they face the realities of life. Adolescents are benefited in several ways by developing life skills. It helped them in strengthening ability to translate knowledge, attitude and values into health behaviours that leads to better life in general.

Gamble, B. (2006) in his article described a project taken up by Chicago Public Schools (CPS) focusing on teaching life skills for Student Success. The CPS observed that many graduates passed out from their schools were struggling to find employment. Those who were employed found having difficulty in retaining their jobs. As a result of this Chicago educators hired a company where all students can learn to write curriculum addressing employability skills for junior high school students. Later the curriculum was piloted by CPS which evolved as a great success.

Jones et. al. (August 2006) wrote an article on evolving new approaches of imparting education in order to meet the challenges of new flexible market economy. They offered a summer school programme developing an Entrepreneurial Life Skills. They quoted the emphasis led by the successive governments in the UK on satisfying the need for a more enterprising society. Often the educationalists were advised by the government to introduce more
elements of enterprise into the school curriculum at different levels, and bring in more innovative ways to make the subject matter increasingly sought. As mentioned above, this article described a summer school where Enterprise modes of learning were stressed than the traditional one. It was observed that the enterprise education demands a different pedagogical approach making the educational experience qualitatively changed.

Kaur (2006) studied the effect of assertive communication training programme on teaching skills in relation to self-esteem and locus of control among pupil teachers. The students were 129 pupil teachers from two streams i.e. humanities and science. The results of the study showed that the use of assertive communication training enhanced the teaching skills of pupil teachers. It is thus an effective instructional strategy for teacher trainees. Standardized tools were used to measure the assertive behaviour of the students. Assertive behaviour training enhanced assertiveness and it will ultimately enhanced self-esteem of pupil teachers. The study also shows that assertiveness training programme would be equally effective for the training of personality traits which are important for the teaching faculty.

Grover (2006) investigated a study entitled impact of teacher monitored online instructional programme on various life skills and academic stress of secondary school students. The main objective of the study was to study the impact of teacher monitored online instruction; online instruction without teacher monitoring and conventional instructional method on life skills and academic stress. The sample was 133 students of class IX from co-educational English medium schools. The study was investigated with the help of pre-post experimental design. The control group was taught through conventional method and experimental group was given treatment. After the experiment, results showed that students taught through online instructional package scored higher in various life skills i.e. skill of problem solving, creative thinking, social skills, acquiring knowledge, communication and decision making, than the students who taught though conventional group learning. It further showed that Students studying through online instruction with teaching monitoring, online instruction without teacher monitoring and conventional group learning scored almost equal gain scores on academic stress. The results
of the present investigation indicated that online instructional technology may be used to enhance the performance of the students in the Science subject at the secondary level as compared to the traditional method of teaching. Further it was suggested that while teaching students through online teacher monitored instructions, control, self-pacing and flexibility are the major advantages offered to the learners which lead to propose that such a strategy is more effective than traditional models.

Vashistha (2006) has conducted a study on Grade VII School students of Ajmer selected through systematic randomization carried out in three different phases. Questionnaires were used to collect data and chi-square for data analysis. The study revealed that low achievement groups have the higher preference for communication skill followed by Empathy, Creative Thinking, Problem Solving, Self Awareness, and stress management respectively. Higher achievement students preferred problem solving to be major life skill relevant to Science and technology. Next are Creative Thinking, Critical Thinking, Decision Making, Communication Skill, Self Awareness Skill, Stress Management, Empathy and Interpersonal Relationships in order to their performance. Majority of the students preferred Problem Solving to be the most relevant and interpersonal Skill to be lest relevant to Science & Technology.

Galagali (2008) carried out a study on Adolescent Life Skills education Program. The objectives of the study were to empower the adolescent with practical scientific knowledge and its application in daily life, to promote and encourage a healthy lifestyle and to give scientific and non judgmental explanations to all health related queries. The programme had positive impact on adolescents as they admitted they had increased knowledge of health related issues.

Mythili (2008) has carried out a study on assertiveness and value system among adolescents with objective to develop assertiveness among male and female. Mythili (2008) has purposively selected 25 male and 25 female adolescents from a school of Chennai. Rayhus assertiveness scale was used to
measure assertiveness and Rockeach study of values was used to assess relative importance of different values within the persons’ total belief system. Chi-square analysis and t-test were applied for data analysis. The study found that there is significance difference between male and female adolescents population in assertive behaviours and values (instrumental and terminal values). The investigator has concluded that birth order, education, family background, physical changes, economic status of their parents and religious faith have strong impact. In being assertive, one has a participating and responsible role to play tasks to perform and skills to develop in the period of adulthood.

NIMHANS conducted study on empowering adolescents with life skills education in schools – School mental health program: Does it work? The major aim of this study was to evaluate the impact of Life Skill Education Programme (LSE Program- NIMHANS model) by finding out the difference between adolescents who were given the program and were not given the program. LSE program was focused for a year considering the life skill areas like coping with stress, coping with emotions, self-esteem, and adjustment in various areas. The sample was consisting two schools from the Bangalore rural district (Chennapatna) and two schools from Udupi District by using random sampling. NIMHANS model of the LSE program was implemented on adolescents of both sexes of 14 to 16 years and studying in 8th, 9th or 10th standard in the given two schools (Bangalore rural and Udupi). Informed Consent from parents was taken. Tools used were Rosenberg Scale of Self-Esteem (RSES, Rosenberg 1965), Preadolescent Adjustment Scale (PAAS, Pareek et al. 1975), Generalized Self-Efficacy Scale (GSES Jerusalem and Schwarzer 1995, Strengths and Difficulties Questionnaire – Self-Report Version (SDQ SRV Goodman et al. 1998), and Class Room Indicators. SPSS version 10 was utilized for data analysis. For categorical measures, the chi-square test was used. NIMHANS model of the LSE program showed positive impact on as there was a significant difference between the groups in the program and not in the program. Participants admitted that their adjustment with teachers and school, coping skills, self-esteem was increased.
Khatal carried out a study on Life Skill Awareness Programme and its Effectiveness for B.Ed. Students. The aim of the study was to make aware the B.Ed. students, to evaluate the effectiveness of Life Skill awareness programme and to get the opinions of B.Ed. students regarding the developed Life skill awareness programme. The type of research was experimental research and single group design was used for the present research study. Forty B. Ed. students were selected as sample by using Incident sampling method. The awareness test (as pre-test and post-test) was used for collecting the data. The findings of the study showed that the life skill awareness programme enhanced the Life skill Knowledge and awareness among the B. Ed. Students and the B.Ed. students opined that the programme had positive impact on them.

Lineo K. (2009) had conducted a study on Life Skills of adolescents. The study was conducted as an initiative of Millennium Development Goals (MDG) providing access to appropriate learning and Education for All (EFA). Primarily life skills education was introduced at both basic and tertiary education level considering it among things to improve all aspects of the quality education. The study intended to explore major components of life skills programmes at Lesotho education system addressing developmental problems such as poverty reduction, bring awareness towards issues like HIV/AIDS, and drug abuse. The purpose of the study was also to examine how efficient the programmes were at primary schools, secondary schools and higher education institutions. The data primarily were collected through documents and analysis, interviewing different stakeholders like policymakers in the Ministry of Education and Training, Deans of the Faculty of Education, principals, and education officials and so on. The essential findings highlighted numerous issues pertaining to quality and teacher capacity in the delivery of the programmes. The study recommended the government of Lesotho to deliver similar programmes through Open and Distance learning in order to address the issue of equity and access of essentials life skills.

Halaiya (2010) conducted a study on Development and Implementation of a Life Skills Programme for student Teachers. The focus of this study was to
develop the Life skills Programme and to find out the effectiveness of Life Skill Programme and also to know their opinions about developed Life skills Programme. Experimental research methodology has been used for this study. 25 student-teachers having Commerce method during the academic year 2008-2009 of the Department of Education, Faculty of Education & Psychology, The Maharaja Sayajirao University of Baroda, Vadodara were selected as sample for the study. The tools used were Situational Tests, Life Skills Inventory, Activity Feedback Sheet, Programme feedback Sheet, Field Notes, Focused Group Discussion and Participatory Observation. Data collected were analysed by employing qualitative techniques. Content analysis was used to analyse the data. As a whole the Life Skills Programme was found to be effective.

**Jena (2011) carried out a study on** Value conflict among school going Tribal Adolescents in relation to their Decision making ability. The study was conducted in one of the most tribal district of Odisha. 10 schools from rural and 10 schools from urban area from that district were selected. 200 tribal school adolescents, studying in 10th class, were selected as sample using stratified random sampling method. Among them 100 are male and 100 were female. Value Conflict Scale and Decision-making ability Scale were used as the data instruments for the study. ANOVA was used as data analysis technique. The findings revealed that the school going urban adolescents were found more advanced than the adolescents from rural area. It was also found that the adolescents of tribal areas were facing emotional, social, economical, cultural and geographic problems which arouse conflicts while decision-making process.

**Promod & Pereira (2011) carried out a study on the level of Life Skills of Students Teachers of Kerala. The objective of the study was to study the level of life skills of student teachers of Kerala. Survey was the major technique used for the descriptive study conducted on a sample of 465 student teachers (B.Ed. students) of five colleges of teacher education affiliated to the University of Kerala, Mahatma Gandhi University and the University of Calicut (representing the south, central and north parts of Kerala). The major
tool used was five point Life skills Scale for student teachers which include 45 items. The study deals with a gender wise and locality wise study. The major findings were propagators of the nation’s future were not empowered enough to meet the demands and challenges of the day, which require life skill to a great extent.

Chaudhari & Mehta (2012) carried out a study on Life skills Education for the Economically Backward tribal adolescent Boys and Girls: an Intervention programme. The objectives of the study were to make boys and girls aware of capacities and to develop gender sensitivity among adolescents for a bias free society. Two Gujarati medium schools located in the tribal populated belt of Bharuch district of Gujarat province of India were identified with the permission and guidance of the District Education Officer. The sample students were specially selected from low-income group. The sample was a mixed group of 94 students between the age of 13 to 15 years, studying in VII and XI standards of both the Gujarati medium schools. An intervention programme adopting participatory method was employed to impart life skills training to adolescent students. A pre-test, post life skills design was adopted to access the impact of the life skills intervention program. Questionnaire was used as a tool. Finding of the research indicate that programme helped the adolescents to build the self image and self-esteem and self-confidence was also raised among the adolescents.

2.3 Emerging observations from the review of the research studies
The reviewed studies were covering different issues related to Life skills prevailing in the world. After reviewing the research studies, some significant points related to the present study have been noted are given below:

Most of the studies were conducted on adolescents and were found Life skills Programme effective in reducing density of the adolescents and youth problems prevailing in the country. Studies on life skills conducted by Botvin (1985), Nova (1998), Meghani (1999), Waltemire (1999), Magee (1999), NIMHANS, Rowland (2002), Chopra (2002), Shangold (2004), Davis (2004), Kulikov (2005), Grover (2006), RGNIYD (2009), Jena (2011),
Chaudhari & Mehta (2012) were on adolescents and youth to develop life skills in isolation or as a whole, are more in numbers. Their findings indicated that life skills have produced the following effects: decreased aggressive behaviour; promoted good social behaviour and increased good interpersonal behaviour, decreased negative and destructive behaviour; increased the planning and decision-making ability, making effective problem-solving attitude; improved self-image, self-awareness and self control, improved emotional adjustment and empathy; better handling of conflict with peers and family; and coping with anxiety and stress. Botvin (1985) found that through LST, the student’s assertiveness, social anxiety, self esteem, decision-making and social coping skills have also developed. Nova (1998) measured the self perception of personal skills between traditional versus non-traditional college students. Meghani (1999) revealed that the evolved strategy for teaching learning critical thinking had been effective in developing critical thinking among students. Waltemire (1999) reported the significant differences between the self perception of traditional and non-traditional college students personal life skills. Magee (1999) revealed that the attaining of life skills has a positive impact on their abilities of decision making, problem solving and conflict management with others. Chopra (2002) found that the module could bring improvement in communication skills which would enable the recipients to perform at work in meaningful and effective manner. Rowland (2002) found that through the magic of theatre and using the techniques of creative drama, children’s creativity; self-esteem was developed and cooperation and responsibility were learned. Shangold (2004) revealed significant development in coping skills for anxiety and depression; interpersonal and cooperative skills; and hostility skills. Davis (2004) found that there was improvement in the self concept, depression and anxiety levels of students with training program. Kulikov (2005) in a study found the impact of competitive youth sport participation on the social skills and competitive skills development. Grover (2006) showed that students taught through online instructional package scored higher in various life skills (i.e. skill of problem solving, creative thinking, social skills, acquiring knowledge, communication and decision making) than the students who taught though conventional group learning. NIMHANS revealed that adolescents’ adjustment with teachers and
school, coping skills, self-esteem was increased with life skills education. RGNIYD (2009) findings showed that the youth became sensitive taking decision confidently for betterment. Jena (2011) found that the school going urban adolescents were found more advanced than the adolescents from rural area. Chaudhari & Mehta (2012) indicated that programme helped the adolescents to build the self image and self-esteem and self-confidence was also raised among the adolescents.

Studies conducted on prospective teachers, either at primary level or at secondary level to develop life skills as a whole, are limited in numbers. Some of the studies were aimed to create awareness of life skills and among pre-service teachers and the others are conducted to develop one or more life skills in isolation or as a whole. Findings of Paul et al. (1995), Bhave (1999), Sharma (2003) and Promod & Pereira (2011) pointed out that there is a need to develop life skills awareness and life skills constructs for teachers at all levels; which is reflected from their findings. The studies conducted by Kaur (2006), Gamble, B. (2006), to enhance life skills among pre-service teachers. Prasad (2002) revealed that adolescents, parents and teachers were become sensitized about Life Skills and adolescents had enhanced their Life Skills in a significant manner. Paul et al. (1995) disclosed that teachers needed to develop clear understanding of the basic concepts of critical thinking as very few have a comprehensive sense of how to promote critical thinking while teaching the content subjects of discipline. Bhave (1999) suggested all the teachers should be imparted life skills training of junior colleges. Findings of Sharma (2003) revealed that most of the teachers were not aware of the concept of life skills. Kaur (2006) studied use of assertive communication training enhanced the teaching skills, personality traits and self-esteem of pupil teachers. Gamble, B. (2006) found that graduates after schooling in Chicago Public School (CPS) found struggling to find employment and in retaining their jobs. The CPS educators piloted CPS to train them addressing employability skills for junior high school students. Khatal found that the life skill awareness programme enhanced the Life skill Knowledge and awareness among the B. Ed. Students and the B.Ed. students opined that the programme had positive impact on them. Lineo (2009)
recommended the government of Lesotho to deliver life skills programmes through Open and Distance learning in order to address the issue of equity and access of essentials life skills. **Promod & Pereira (2011)** revealed that the propagators of nation’s future i.e. student teachers of Kerala were not empowered enough to meet the demands and challenges of the day, which require life skill to a great extent. Majority of studies necessitated the need to make aware and develop life skills among the teachers, counsellors, social workers, parents and interested community members with Life Skills Education.

Studies conducted to develop one or more life skills in isolation or as a whole are mentioned below. **Greene (1988)** came out with instructional principles which could be of help to the educators and mentors to induce effective life skills behaviours among their students. **Chopra (2002)** constructed a Self-instructional Module to enhance communication skills of college principals, and found improvement in communication skills which would enable the recipients to perform at work in meaningful and effective manner. **Rowland (2002)** found that children’s creativity, self-esteem, cooperation and responsibility was developed through creative drama, and he developed a handbook to enable others to replicate this programme in their communities. **Pathak (2002)** had prepared a Creativity Program for Pre-Service Teacher Trainees at Primary Level and evaluated its Effectiveness and the programme developed creativity components like fluency, originality, flexibility. **Kaur (2006)** - Assertive behaviour training enhanced assertiveness and it will ultimately enhanced self-esteem of pupil teachers. The study found that there is significance difference between male and female adolescent’s population in assertive behaviours and values.

Studies conducted on imparting Life Skills education by integrating it other subjects were very few. **Kumari (2002)** conducted a study entitled development of life skills with Mathematical education and found that middle class students have developed problem solving skills by learning mathematics and students were using this skills to deal with real world environment and experiences. **Grover (2006)** revealed that online instructional technology may
be used to enhance the performance of the students in the Science subject at the secondary level.

Studies conducted in relation to certain variables and their impact, were also found out. Mythili (2008) found that birth order, education, family background, physical changes, economic status of their parents and religious faith have strong impact. He also found that there is significance difference between male and female adolescents’ population in assertive behaviours and values (instrumental and terminal values). Sharma (2003) studied that maternal education and family support was significantly associated with higher life skill levels in adolescents. The findings of study by Jena (2011) revealed that the school going urban adolescents were found more advanced than the adolescents from rural area. Promod & Pereira (2011) carried out a survey to assess the level of Life Skills of Students Teachers of Kerala with gender wise and locality wise and found that they were not empowered enough to meet the demands and challenges of the day, which require life skill to a great extent.

Reviewing about tools used in the field of life skills the following observations were made. Most studies used self constructed tools and some used standardized tools. Promod & Pereira (2011) used self-made five point Life skills Scale for teachers to measure life skills. Meghani (1999) used critical thinking measurement tool to measure critical thinking, Pathak (2002) used self-constructed creativity test and Helaiya S. used self-prepared Life Skills Inventory as major tools of the study, Shenoy (2005) used self prepared – questionnaires, interviews and observations, Chaudhari & Mehta (2012) used questionnaire as tools of data collection and many more studies used questionnaires. Whereas Mythili (2008) used Rayhus assertiveness scale and Rockeach scale of values to measure assertiveness and values, NIMHANS-used Rosenberg Scale of Self-Esteem (RSES, Rosenberg 1965), Preadolescent Adjustment Scale (PAAS, Pareek et al. 1975), Generalized Self-Efficacy Scale (GSES Jerusalem and Schwarzer 1995, Strengths and Difficulties Questionnaire – Self-Report Version (SDQ SRV Goodman et al. 1998) to measure the level of self-esteem, adjustment, self-efficacy and self awareness.
constructs respectively. Mainly Pre-test and post test, Questionnaires and focused group discussion were used to measure life skills.

Most of the studies adopted developmental and experimental design. Meghani (1999) used methods like case study and Socratic questioning to develop critical thinking skills among; Helaiya S. (2010) used methods like situational discussion, role-play, dramatization, games and puzzles, audio-visual activities, story-telling, brain-storming, self-reporting etc. to develop core life skills among pre-service teachers; and Pathak used songs and music as techniques to develop creativity among primary pupil teachers.

Most of the studies used convenient, incidental and purposive sampling. By considering data analysis techniques used for studies conducted in teacher education field, the following observations were made. Mythili (2008) used Chi-square analysis and t-test, Meghani (1999) used qualitative and quantitative analysis t-test, Buhs (2000) used Qualitative analysis, Pathak (2002) used quantitative analysis techniques such as ANCOVA and two-way ANOVA, Chopra (2002) used frequency counts, percentage responses and content analysis, Helaiya used qualitative techniques like Content analysis as a technique to stastical analysis.

2.4 The uniqueness of the present study:

- More numbers of studies have been conducted on adolescents and school students by addressing different issues related to adolescent health. Studies targeting to the sample such as youth and prospective teachers are less in numbers. Very few studies were undertaken on imparting life skills education/training at the Teacher education level, both at pre-service teacher education as well as in-service teacher education. Further findings of Paul et al. (1995), Bhave (1999), Sharma (2003) and Promod & Pereira (2011) pointed out that there is a dire need to develop life skills awareness and life skills constructs for teachers at all levels and recommended training for Teachers, Counsellors and Social Workers for providing Life Skills Education.
The present study would contribute in developing a Life Skills Programme (LSP) for pre-service teachers.

- It was found from the studies that the trend to carry out intervention studies to develop life skills were more dominant than the assessing life skills. The present study is an attempt to prepare a Life Skills Scale to carry out need based analysis and to prepare need based life skills programme.

- A vast majority of the studies were focussed on developing one or two life skills in isolation. Studies to develop core life skills as a whole were few in numbers. The LSP in the present study were focussing on developing ten core life skills suggested by World health Organization (WHO).

- Mythili (2008) found that birth order, education, family background, physical changes, economic status of their parents and religious faith have strong impact. In the previous studies, various variables have been studied to see the impact of Life Skills Programme in relations with gender, locality, maternal education, stream, and instructional design more frequently. The present study was an attempt to study the effect of area, discipline and degree they hold on enhancement of life skills of prospective teachers.

It has been found from the review of previous studies conducted in the area of life skills that the status of life skills education is not up to the satisfactory level at both pre-service teacher education and in-service teacher education level in India. Researches in Life Skills Education are undergoing a paradigm shift and many new approaches and methods have been tried out at research level. Hence the present study is an attempt to develop an LSP for pre-service teachers to bring awareness about life skills and enhance life skills attributes among the pre-service teachers. The implications drawn from these studies helped in designing the intervention programme for the present study.

2.5 Conclusion
The chapter has outlined contributions of other researchers. The researcher reviewed already conducted researches which included the title of the study, the objectives, the method and tools of research and findings. These ideas have assisted this research in its attempt to find a solution to its research problem. Also the researcher has tried to draw a line between the previous studies and the present study.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

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CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

“A system of models, procedures, and techniques used to find the result of a research problem is called a research methodology (Panneerselvam, 2007:2).”

John and Kahn (2006:32) mentions about methodology, “the term ‘methodology’ is a broader term, in the sense it comprises type of research, method of research, nature of population, selection of sample, selection and preparation of tools, collection of data procedures, and selection of statistical tools. Research Methodology also directs which design is implemented. The methodology employed often determines the quality of the data set produced”.

The present chapter details the planning and description of methodological principles and design adopted for the study by the investigator for arriving at certain conclusions. It represents the details of the population and sampling procedure, the research design employed, the research tools used for the study, tools and characteristics of the tools, construction of the scale and administration of the scale, scoring of the scale, for data validity, a description of the data collection procedures and statistical techniques employed for analysis of data.

3.1 Research Methodology employed for the study

3.1.1 Research Type
According to De Vos (2012), the intervention research is conducted when something new is created and then evaluated. She further states: “….it is a new technology or intervention, an innovation, while programme evaluation as “mere” programme evaluation assumes the prior existence of a programme or intervention designed and developed by someone else, perhaps long before the evaluator ever entered the field” (as cited in Bender C. J. G., 2002:13).

This research was focused on designing and developing a programme; and finding out its effectiveness, therefore, research type is Intervention Research.
According to Travers (as cited in Best J. W., 2006:22) “applied research is undertaken to solve an immediate practical problem and the goal of adding to scientific knowledge is secondary.” Applied research is concerned with using the knowledge acquired through research to contribute directly to the understanding or resolution of a contemporary issue (Ritchie, J. and Lewis, J., 2003:24). In other words, applied researches are conducted to test the theoretical concepts in problem situations. The present research attempted to find out the effectiveness of the developed programme, based on life skills theories, in terms of performance of subjects that tends to generalization to research population. Therefore it is referred as Applied Research too.

Also experimental research needs to be completed in a controlled environment in which the researcher collects data and results. The study either accepts or rejects the hypothesis in the light of data analyses. This method of research is also referred as Hypothesis Testing/Evaluation Research.

3.1.2 Research Method
There are various types of methods used based on the purpose of the researches. Thus, the researcher must mention what method/methods of research is/are used in the research with appropriate rationalization for using them. The various methods used are stated as follow:

1. Quantitative methods
   - Descriptive research method
   - Experimental method- involves random assignment of subjects among groups on various conditions and analysis between groups;
   - Quasi-experimented method;
   - Causal-comparative research;
   - Evaluation research method - school surveys, follow up studies;
   - Assessment research method - surveys, public opinion polls, assessment of educational achievement.

2. Qualitative methods
   - Ethnography;
   - Phenomenology;
   - Narrative research;
• Grounded theory;
• Symbolic interaction;
• Case study;
• Content analysis- data are collected through the interviews and questionnaires and the information gathered are analyzed using systematic approaches;
• Archival/historical research method- information are collected through a variety of past records such as biographies, memoirs and news release;
• Life history- study of the personal life through interviews

Experimental Research uses four levels of measurement:

i. A Nominal scale- measures differences between things by assigning them to categories. It is the least precise method of quantification.

ii. An Ordinal scale – ranks items/individuals from highest to lowest. Sometimes it doesn’t only indicate the things differ but they differ in amount or degree.

iii. An Interval Scale – It is an arbitrary scale based on equal units of measurements indicates how much of given characteristics is present. It is more advantageous over nominal and ordinal scales as it indicates the relative amount of a trait or characteristic.

iv. A Ratio Scale - has the equal interval properties of an interval scale.

The study used quasi-experimental method and used five point Likert type Life Skills Scale. When the study doesn’t follow random selection and assignment of subjects for the groups and the dependent variable measured are on an ordinal scale, measures of statistical significance for collected data were restricted to the non-parametric methods.

3.1.3 Research Design

Experimental Design is a sketch of methods and procedures that make possible for the researcher to test the hypotheses to find the relationships between independent and dependent variables and to reach at valid
conclusions. The selection of research design depends upon the purpose of the experiment and the type of variables.

According to Gay and Airasian (2000) (as cited in Best J.W., 2006:29), “A design is general strategy for conducting a research study. The nature of the hypothesis, the variables involved, and the constraints of the real world all contribute to the selection of design.”

As pointed out by Seliger and Shohamy (1989) “the experimental research is carefully constructed so that variables can be controlled and manipulated.” In other words, an experimental research design involves manipulating the independent variable and observing the change in the dependent variable(s).

To investigate the effectiveness of the Life Skills Programme for enhancing life skills of pre service teachers, a research design which tested the given hypotheses in a controlled context such as an experiment was required.

Basically the three types of designs are:

1. Pre-experimental design
2. True experimental design
3. Quasi-experimental design

A true experimental design consists of three essential characteristics; the presence of a control group, randomization of the participants while selecting sample and their assignment to groups and pre-testing to both groups to measure prior differences in the groups. However, adopting true experimental design and assuring to fulfil the all three basic characteristics may not always be possible, when the researches focus on learning behaviours or skills enhancement. Also in classroom research, it would be desirable to assign random subjects to both experimental and control groups. However because of administrative limitations, at times intact groups must be used. In accordance with the pre requisite of the study, a descriptive design with a quasi-experiment; The Pre-test Post-test Nonequivalent Experimental Control Group Design was adopted. This research design looks very similar to the true experimental design except that there is no randomization of the subjects among the groups. But with non-probability sampling also the similarity of groups on relevant variables or characteristics is possible. Indeed, with quasi-experimental designs, the confidence that can be placed in the validity of
results depends in large part on the case that can be made for the similarity of the groups (Wiersma W. and Jurs S., 2009:167).

The Pre-test Post-test Non-equivalent Experimental Control Group Design can be diagrammed as follows:

<table>
<thead>
<tr>
<th>E</th>
<th>T₁E</th>
<th>X</th>
<th>T₂E</th>
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</thead>
<tbody>
<tr>
<td>C</td>
<td>T₁C</td>
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<td>T₂C</td>
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Where, $T_{1E}$ = Measurement of the dependent variable for experimental group; $X$ = Independent variable, the intervention programme (Life Skills Programme); $T_{2E}$ = Measurement of the dependent variable for experimental group; $T_{1C}$ = Measurement of the dependent variable for control group; and $T_{2C}$ = Measurement of the dependent variable for control group.

The design indicates that Life Skills Scale at the beginning on both groups to access pre-status of life skills among participants, under consistent conditions, prior to conducting the experiment, followed by the treatment, that is, the Life Skills Programme. After administering of Life Skills Scale, one group receives the experimental treatment in the form of LSP and another group, serving as a control group, receives the Life Skills Theoretical Orientation through conventional method. Any treatment measures outcomes both before and after the intervention, thus representing the corresponding impact as a change in outcome. Both groups were given Life Skills Scale at post-phase at the same time, shortly after the experimental treatment is completed for experimental group. The Life Skills Scale in the beginning greatly aids for baseline-pre assessment to find out what the learners already know and can exhibit and is carried out in the beginning of the intervention (LSP). The life skills scores on selected variables were measured to assess whether it had a strong relationship with the dependent variable.

### 3.1.4 Population and Sampling

#### 3.1.4.1 Population

According to Lokesh Kaul (1997:111), “A population refers to any collection of specified group of human beings or non-human entities such as objects,
educational institutions, time units, geographical areas, prices of wheat or salaries drawn by individuals. Some statisticians call it universe.”

Bless and Higson-Smith (1995:85) states “that the entire group of people who are the object of research and about whom the researcher wants to establish some characteristics is called the population”.

All the B.Ed. Colleges affiliated to Veer Narmad South Gujarat University constituted a population for the present study.

3.1.4.2 Sample/Participants
A sample is a subset of the population to which the researcher intends to generalize the results (W. Wiersma and S.G. Jurs; 2009:325). For the present study, a researcher used purposive sampling, which comes under non-probability sampling. It is also known as selective, judgemental or subjective. The main aim of purposive sampling is to focus on particular characteristics of a population that are of interest, which will best enable you to answer your research questions. The purpose of the present study is to evaluate the Life Skills Programme on target sample i.e. pre-service teachers. Also because of administrative limitations in randomly selecting and assigning subjects to experimental and control groups, use of probability sampling was not possible. The limitation of the non-probability sampling is that it makes generalization of the research results risky (Bless & Higson-Smith, 1995, p. 95). Patton (1990) and Gabor (1993) too support this fact. But that was not a major concern as the current study is aimed to design, develop and improve programme effectiveness in a specific context that is supported by Marlow (1993), says that non-probability sampling is often used when the researcher wants to evaluate social work practice.

Two B.Ed. colleges affiliated to Veer Narmad South Gujarat University (VNSGU) were selected by purposive sampling. All the pre-service teachers of those selected B.Ed. colleges constituted the sample. Vivekananda College for B.Ed., Jahangirpura, Surat was considered as Experimental group and S.R.Patel College of Education, Palanpur Jakatnaka; Surat was considered as Control group.
The details of the selected sample are given as under in Table 3.1 on next page.

Table 3.1
Sample for the Main Study

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the College</th>
<th>No. of Pre-service teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vivekananda College for B.Ed., Jahangirpura, Surat (considered as Experimental Group)</td>
<td>41</td>
</tr>
<tr>
<td>2.</td>
<td>The S.R. Patel College for education, Palanpur Patia, Surat (considered as Control Group)</td>
<td>46</td>
</tr>
</tbody>
</table>

Table 3.2 represents sample colleges and sample number of pre-service teachers for the study. All the pre service teachers of those selected B.Ed. colleges constituted the sample. Total 87(41+ 46) pre-service teachers were constituted the sample for main study.

3.1.5 Specifications of Variables of the study

The experimental design, as stated earlier, explores the strength of relationship between variables.

Variables are the conditions or characteristics that the experimenter manipulates controls or observes (Hughes, 1990). According to Nunan (1992), “the variable that the experimenter expects to influence the other is called the independent variable”. There are two types of independent variables: treatment and attributed variables. Treatment variable are those factors that the experimenter manipulates and to which he/she assigns subjects. Attribute variables are those characteristics that cannot be altered by the experimenter. It is also termed as major variable that the researcher desires to investigate. In this study, the treatment variable was ‘The Life Skills Programme’ to enhance life skills which was exposed to the pre-service teachers of experimental group whereas the traditional method was used for the control group.
And the attributed variables decided for the present study were gender (female/male), the area they come from (rural/urban), the discipline they opted at higher-secondary school level (Arts/Science/Commerce) and the educational qualification of the pre-service teachers (UG/PG).

About dependent variable, Nunan says that “The variable upon which the independent variable is acting is called the dependent variable”. It is the variable which the researcher monitors and measures to decide the effect of the independent variable. The dependent variable in the present study were life skills scores of pre-service teachers, measured on Life Skills Scale and Situational test at pre-phase and post-phase of the intervention, with respect to gender, the area they belong to, the discipline they opted at higher-secondary school level and educational qualification of the pre-service teachers.

Details of the variable were explained in table no. 3.2.
Table 3.2
Details of variables of the study

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Types of Variable</th>
<th>Levels of Variable</th>
<th>Specifications of Levels</th>
<th>Tools for Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Life Skills Programme</td>
<td>Independent – Treatment</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td>Independent Trait</td>
<td>2</td>
<td>Female Male</td>
<td>Information Schedule</td>
</tr>
<tr>
<td>3.</td>
<td>Area</td>
<td>Independent Trait</td>
<td>2</td>
<td>Rural Urban</td>
<td>Information Schedule</td>
</tr>
<tr>
<td>4.</td>
<td>Discipline</td>
<td>Independent Trait</td>
<td>3</td>
<td>Arts Commerce Science</td>
<td>Information Schedule</td>
</tr>
<tr>
<td>5.</td>
<td>Educational Qualification</td>
<td>Independent Trait</td>
<td>2</td>
<td>Bachelor Degree-UG Master Degree-PG</td>
<td>Information Schedule</td>
</tr>
<tr>
<td>6.</td>
<td>Enhancement of Life Skills in Pre service teachers with respect to gender, area, discipline, educational qualification</td>
<td>Dependent</td>
<td>-</td>
<td>Measures the effects of independent variable (performance of subjects of experimental group on Life Skills Scale before and after the LSP)</td>
<td></td>
</tr>
</tbody>
</table>
3.1.6 Hypotheses for the Study
The following hypotheses were tested to evaluate the effectiveness of Life Skills Programme (LSP) among pre-service teachers.

**Hypothesis framed by considering Scores on Situational Test**

- **H01** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not.
- **H02** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to gender.
- **H03** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to area.
- **H04** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.
- **H05** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

**Hypothoses framed by considering Scores on Life Skills Scale**

- **H06** There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who attended the programme and who did not.
- **H07** There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to gender.
- **H08** There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area.
- **H09** There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.
There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

### 3.1.7 Tools for Data Collection for the study

This phase of research process was centred on selecting suitable data collection tools and development of research tools. The research tools used for data collection were:

1. Primary Research Instruments: used to determine the effectiveness of the programme to enhance life skills of the pre-service teachers.
   a. Life Skills Scale (administered as pre-phase and post-phase of the LSP),
   b. Situational Test.

2. Secondary research tools: used to appraise the impact and views about programme effectiveness from participants (pre-service teachers)
   a. Programme Feedback Questionnaire,
   b. Focussed Group Discussion, and
   c. Field Notes and Participative Observations.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Tools Used</th>
<th>Purpose of the tool</th>
</tr>
</thead>
</table>
| **Objective 1:**
To identify the level of life skills among pre-service teachers. | ➢ Life Skills Scale at Pre-phase | ➢ Used for pre-assessment - to assess the life skills levels of pre-service teachers before intervention by rating themselves (self-assessment). |
| **Objective 2:**
To design and develop a Life Skills Programme for pre- | ➢ Treatment: Life Skills Programme | ➢ Used as an intervention to develop and enhance life skills among |
<table>
<thead>
<tr>
<th>Objective 3:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To study the effect of a Life Skills Programme on pre-service teachers’ life skills.</td>
<td>➢ Life Skills Scale at post-phase</td>
<td>➢ Used for post assessment - to assess the level of life skills of pre-service teachers after the intervention by rating themselves after intervention (LSP)</td>
</tr>
<tr>
<td></td>
<td>➢ Situation test</td>
<td>➢ Used for pre and post-assessment through their responses in real life situations and conceptual understanding of life skills.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 4:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To study the effect of a life skills programme on pre service teachers’ life skills with respect to their gender, region and discipline.</td>
<td>➢ Information Schedule</td>
<td>➢ To get information about demographic details, information schedule was used.</td>
</tr>
<tr>
<td></td>
<td>➢ Life Skills Scale as Post test</td>
<td>➢ To evaluate the effectiveness of the LSP after intervention, both LSS and situational test were used.</td>
</tr>
<tr>
<td></td>
<td>➢ Situational test</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 5:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>To find out the opinions of pre-service teachers</td>
<td>➢ Programme Feedback Questionnaire ➢ Focussed Group</td>
<td>➢ Both tools were prepared and used by the researcher to ask opinions and</td>
</tr>
</tbody>
</table>
regarding developed programme.

Discussion

- Field Notes and Participative Observations.

feedback on the Life Skills Programme.

A detailed description of each instrument is given below.

3.1.7.1 Life Skills Scale (used as pre-phase assessment and post-phase assessment)

- **Need of the tool - Life Skills Scale**

As emerged from the review of studies conducted in the area of life skills, though the sufficient theoretical frame-work was available on life skills education, there are very few standardized and scientific Life Skills Assessment Scales. And hence the need was realized for devising a multi-dimensional Life Skills Measurement Scale to assess the life skills. Further, for interventional purposes, the need for a life skills assessment tool was required to assess the level of life skills prior the intervention and also to measure the post-intervention life skills level and hence to measure the effectiveness of the intervention. Also it would be helpful for need analysis and to provide with the participants a need based intervention. The present study explored the Life Skills Scale to measure the level of life skills among the pre-service teachers.

The term “scaling” is applied to the procedures for attempting to determine quantitative measures of subjective abstract concepts (Kothari R., 2004:77). Phillips B. (1971:205) defines the term “scaling” as a “procedure for the assignment of numbers (or other symbols) to a property of subjects in order to impart some of the characteristics of numbers to the properties in question”.

To measure the life skills level of pre-service teachers, the researcher considered Life Skills Scale as valid tool as the pre-service teachers had to rate their responses/opinions/behaviours on the items on Life skills Scale by themselves. According to Jordan, Franklin and Corcoran (1993), “Self-ratings are helpful because individuals can evaluate their own thoughts, behaviour
and feelings accurately, provided that they are self-aware and willing to be truthful (as cited in Bender CJG and Lombard A., 2004:94).”

Patton (1987) describes statements in two types, one as feeling questions and the other as experience/behaviour questions. Feeling questions are designed to know the emotional responses of a person to their experiences and thoughts. And the other types of statements are designed to evoke responses about their experiences, behaviours, actions and activities of persons while facing certain situations. The researcher should have clear understanding about what he wants to measure and the choice of statements.

The researcher had constructed a rating scale named Life Skills Scale on the basis of five point Likert Type Scale, which is the most widely used approach. The rating scale involves qualitative description of a limited number of aspects of a thing or of traits of a person.

- Characteristics of the tool
As mentioned above, the rating scale involves qualitative description of a limited number of aspects of a thing or of traits of a person. The Scale is a well-ordered, well-organized, one dimensional scale on which respondent indicates/decides on one agreement/opinion to a statement/item that best support with their views. The scale can also be four points scale, five points scale; six points scale and so on. The drawback of even numbered scale is that it generally compels a respondent to select any of the opinion while the odd numbered scale has options to respond for uncertainty or indecision. The items were written in the form of qualitative description of traits (in the form of attributes of core life skills) of a person with five-point scale. The scale was developed to measure the life skills level (how much you know about yourself with regard to life skills and how much do you practice them in real life) related to each life skill of pre-service teachers. The Life Skills Scale administered at pre-phase to assess the level of life skills in terms of what the learners know and can exhibit about each life skill. It is also carried out at the end (post-phase) to measure the enhancement of life skills (as evident through
the difference in pre life skills scores and post-life skills scores) among pre-service teachers.

- **Construction of the Tool**

To get clarity about choice of the statements/items included in Life Skills Scale, the researcher carried out the review of content on core life skills as mentioned in Chapter Two. The Life Skills Scale included 138 statements in the primal form which was divided in ten subcomponents (ten areas of life skills). The items/ were presented in terms of indicators/traits/constructs related to each area of life skills. The compiling of the statements for instrument was done by kept in mind the learning outcomes of the Life Skills Programme targeted to enhance level of core life skills. It also helped the researcher to take into consideration that the learners in outcomes-based education should be able to assess themselves (Morganett, 1994; Division of Mental Health WHO, 1994; Department of Education, 1999). All the items/statements of the scale were placed in line with the learning outcomes of the Life Skills Programme.

**Process of constructing the Life Skills Scale:**

1. Studying and analyzing the available literature on life skills, life skills and its traits/indicators, research studies conducted in the area of life skills, various scales, various documents and holding discussion held with experts in the field to construct life skills,
2. Collecting large numbers of statements depicting the life skills practices,
3. Scaling the statements on five points i.e. ‘1-nil’, ‘2-little’, ‘3-satisfactory’, ‘4-much’ and ‘5-most’,
4. Establishing the validity of pilot form of Life Skills Scale by experts,
5. Selecting the sample for administration of the pilot form of the scale,
6. Administering the scale,
7. Finalizing the Life Skills Scale.
8. Establishing the validity and Reliability of Life Skills Scale
1. Studying and analyzing the available literature on life skills
The researcher analysed the available literature and documents on measurement of the life skills and also discussed with the experts in the field. There are ten core life skills recommended by WHO. For each Life skill about ten to fifteen behavioural statements were constructed. These statements were related to the awareness of themselves regarding life skills and their practice in daily life situations and challenges. The researcher constructed 138 statements on life skills practices in the preparatory form.

2. Collecting large numbers of statements depicting the life skills practices
Then the instrument was tested in terms of its face and content validity as it was given to the experts consisting of distinguished and experienced personnel in the field of education, life skills and research. Statements were discussed; opinions and suggestions of experts were considered for giving the final shape.

3. Scaling the statements on five points
The participants were asked to read the statements and put a tick mark at the number how they rated their life skills on an ordinal scale from 1 to 5 as ‘1-nil’, ‘2-little’, ‘3-satisfactory’, ‘4-much’ and ‘5-most’.

3. Establishing the validity of pilot form of Life Skills Scale by experts
Content validity is an important aspect of developing tools that can help researchers understand and treat behavioural and mental health conditions. It is essential to find out if the data collection procedure is a good representation of the content which needs to be measured (Seliger and Shohamy, 1989). The investigator talked with the experts about the content of the scale.

5. Selecting the sample for administration of the pilot form of the scale
As indicated earlier, the procedures followed in designing the Life Skills Scale (Pre-test and post-test) helped in identifying the difficulties that the respondents might face when those tools would be administered to them. In connection with the significance of piloting the tools, Cohen, Manion and
Morrison (2007) citing different scholars (for example, Oppenheim, 1992; Morrison, 1993 and Wilson and McLean, 1994) list several advantages of piloting the tools and the programme, some of which are listed here:

- to check the clarity of items, instruction and layout
- to gain feedback on the validity of the items
- to eliminate ambiguities or difficulties in language
- to check readability level for the target audience
- to get feedback on the types of items/questions, to identify ambiguous/incorrect items and to omit such items/questions

For the pilot administration of the scale, fifty pre-service teachers of B. Ed. colleges of VNSGU, Surat were purposively selected as sample for the pilot testing of Life Skills Scale.

6. Administration of the pilot form of the scale

The pilot administration of the scale was conducted on fifty pre-service teachers of B.Ed. colleges of VNSGU. The time was recorded for completing the life skills scale for deciding the time limit. Considering it, 60 minutes was decided for final form of Life Skills Scale. Further several informal discussions were held with most of the participants to ask for their opinions and elicit responses about items on scale. These discussions during pilot testing helped the researcher to detect the errors and limitations.

The opinions and observations were drawn from pilot testing:

1. Instructions were not clear to them.
2. The language needs to keep simple and clear.
3. Time to fill up the Life Skills Scale needs to be increased.

By considering pilot subjects’ responses and investigator’s participative observations during pilot testing of the life skills scale, the suggested changes were made.

7. Arriving at a final form of the Life Skills Scale

The insights and suggestions gained from the processes of validation and piloting of the preliminary form were the basis for shaping and modifying the life skills scale. By following the all above mentioned steps, the researcher
had arrived at the final form of Life Skills Scale. Final form was consisting information schedule, confidentiality statement, general instructions guiding on how to respond the items on the scale and then it was followed by the items representing the life skills traits on which the respondents have to rate their opinions. The final form of Life Skills Scale (LSS) was consisted of 125 items/statements. These 125 items/statements were grouped and divided into ten areas/dimensions i.e.: Self Awareness, Interpersonal Skill, Critical Thinking Skill, Decision Making Skill, Empathy, Effective Communication Skill, Creative Thinking Skill, Problem Solving Skill, Coping with Stress, and Coping with Emotions. The scores attained under each area represent the level of life skills in the respective area. The scores range from 125 to 625 for the whole scale, higher the scores is the indicator of high life skills level and lesser the scores is the indicator of low life skills level. The scale had 125 statements. The final form of Life Skills Scale placed in Appendix I. The table below represents the areas of life skills, serial numbers depicting items related to each area and total number of items included in the final form of Life Skills Scale.

**Table 3.4 Areas of Life Skills, items in each area/dimension and total no. of items**

<table>
<thead>
<tr>
<th>Areas/ No. of Items</th>
<th>Serial Numbers of Items In the Final Scale</th>
<th>Total No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-awareness Skill</td>
<td>1,2,3,4,5,6,7,8,9,10,11,12,13,14,15</td>
<td>15</td>
</tr>
<tr>
<td>Interpersonal Skill</td>
<td>16,17,18,19,20,21,22,23,24,25,26,27,28</td>
<td>13</td>
</tr>
<tr>
<td>Critical Thinking Skill</td>
<td>29,30,31,32,33,34,35,36,37,38,39,40</td>
<td>12</td>
</tr>
<tr>
<td>Decision Making Skill</td>
<td>41,42,43,44,45,46,47,48,49,50</td>
<td>10</td>
</tr>
<tr>
<td>Empathy</td>
<td>51,52,53,54,55,56,57,58,59,60</td>
<td>10</td>
</tr>
<tr>
<td>Effective Communication Skill</td>
<td>61,62,63,64,65,66,67,68,69,70,71,72</td>
<td>12</td>
</tr>
<tr>
<td>Creative Thinking Skill</td>
<td>73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89</td>
<td>17</td>
</tr>
</tbody>
</table>
8. Validity and Reliability Measures of Life Skills Scale

Validity Analysis of Life Skills Scale:
According to Guilford (1956), “The validity of a test or of any measuring instrument depends upon the fidelity with which it measures what it proposes to measure”.

The Validity of the Life Skills Scale was determined in terms of face validity and item analysis methods. The face validity of the Life Skills Scale was found to be appears to high as items prepared were given to experts in the area of Life Skills. Content validity is mainly measured by relying on the knowledge of subject-matter experts who have the in-depth knowledge with the construct being measured. The experts are usually asked to provide feedback on the subject-matter of measurement tool to determine the content validity of the test. They are asked to reflect on how well each question measures the construct. Their opinions, reviews and comment/feedback were then analyzed. Items with highest agreement by judges were included in the scale. Thirteen statements were found irrelevant and were removed from the life skills scale. The other changes suggested were mainly structural and linguistic. Considering the suggestions, changes were made and at the end total 125 statements were finalized for the Life Skills Scale for pilot testing.

Reliability analysis of Life Skills Scale:
According to Antasi & Urbina (2002:), "Reliability refers to the consistency of scores obtained by the same persons when they are re-examined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions". There are four methods of establishing the reliability of a test. They are:
i. Test - retest method  
ii. Alternate or parallel form  
iii. Split half method  
iv. Rational equivalence method

Cronbach’s Alpha - Reliability Test and Test-Retest Reliability were run to measure the internal consistency of items in the scale. The SPSS (version 15.0) was utilized to measure the Cronbach’s Alpha co-efficient and split-half reliability co-efficient.

A researcher has devised a Life Skills Scale including 125 items. These 125 items/statements were grouped and divided into ten dimensions. Joseph-Rosemary (2003) specifies that the value of Cronbach’s Alpha Co-efficient normally falls within the range zero and one. The closer the alpha co-efficient, the greater the internal consistency of the items in the scale. The formula used to find out the Cronbach’s Alpha co-efficient is Cronbach’s Alpha = rk / [11+ (k-1)r]. The rules of thumb to infer the Cronbach’s Alpha co-efficient is _9-Excellent, _8- Good, _7 – Acceptable, _6- Questionable, _5- Poor, _<.5 – Unacceptable. Cronbach's Alpha for the Life Skills Scale was carried out among the items and the alpha co-efficient was calculated. The Cronbach’s alpha resulted in an overall score of 0.697 indicating internal consistency of the items, which is considered as acceptable.

Test-Retest reliability is also one of the methods to measure internal consistency. Test-retest reliability of the Life Skills Scale was found out. The scale was administered twice with a time interval of fifteen days to a sample of sixty pre-service teachers of B.Ed. Colleges of Veer Narmad South Gujarat University. The reliability coefficient was found to be 0.782, computed using Product Moment Correlation method.

3.1.7.2 Situational Test

Situational Test was constructed by the investigator researcher to evaluate effectiveness of the developed programme in addition to Life Skills Scale. It comprises of 30 test items, incorporating conceptual understanding of core life skills and its practical usability in real life. All the items in the test were mixed form of open and close ended questions. Some of them are direct questions
and some are situation based questions. The test items including direct questions were used to check the understanding of core life skills. And the other types of questions/statements are designed to describe their usability of life skills in real life and to evoke responses about their experiences, behaviours, actions and activities of persons while facing such situations in real life. Some of situation based test items consist of a stem (question) and three/four alternatives (responses), in which one was the most appropriate answer and one most inappropriate answer; whereas some of situation based test items have only one right answer and the others were distracters. The situational test was developed in English and later translated in Gujarati, were also evaluated and modified by experts. The Gujarati version of Situational test was presented in appendix III. The answer key of situational test was developed and used to measure the responses of the pre-service teachers, is presented in appendix IV.

A good test requires adequate, detailed and extensive planning. The important points need to be considered while constructing a test:

(i) The subject-topic and grade of target sample
(ii) Content Analysis for the Situational Test
(iii) Weightage to content units
(iv) Weightage to objectives
(v) Preparation of the blue print Validity of the Situational test
(vi) Test-length, time, maximum marks, instructions for answering and scoring procedures of the test
(vii) Piloting a Situational Test and evolving its final form

The details of each point are given below

(i) Subject and grade of the test- The situational test was constructed to measure the enhancement in life skills for pre-service teachers of the VNSGU.

(ii) Content Analysis
Content Analysis was carried out to decide the content for the Situational Test and was presented in the table 3.5.
### Table 3.5 Content Analysis of Core Life Skills

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Content</th>
<th>Sub content</th>
</tr>
</thead>
</table>
| 1.      | Concept of Life Skills | 1. Meaning  
2. Definitions of Life Skills given by different organizations  
3. Need and Importance of Life Skills  
4. Classification of life skills according to various models  
5. Core Life Skills suggested by WHO  
6. Methods and techniques to impart life skills |
| 2.      | Self awareness Skill   | 1. Meaning  
2. Definitions  
3. Importance  
4. Indicators  
5. Aspects of Self-awareness skill  
6. Methods and techniques to improve self awareness skill |
| 3.      | Interpersonal Skill    | 1. Meaning  
2. Definitions  
3. Process-Stages of relationship according to the Model of George Levinger (1983)  
4. Characteristics of a person having good interpersonal skill  
5. Methods and techniques to enhance interpersonal skills |
| 4.      | Effective Communication Skill | 1. Meaning  
2. Definitions  
3. Communication Skill as a combination of other skills  
4. Components of Communication Process  
5. Explanation of Communication Process  
6. Characteristics of an Effective Communicator  
7. Methods and techniques to enhance effective communication skills |
| 5.      | Problem-solving Skill  | 1. Meaning  
2. Definitions  
4. Characteristics of a good problem solver  
5. Methods and techniques to enhance effective problem solving skills |
| 6.      | Decision making skill  | 1. Meaning  
2. Importance  
2. Process-Stages of Decision Making  
3. Characteristics of a good decision-maker  
4. Methods and techniques to improve |
### Decision Making

1. Meaning
2. Definitions
3. Importance of Creativity
4. Brainstorming as a technique to develop creative thinking skill
5. The rules of brainstorming and Ways to run brainstorming sessions
6. Characteristics of a good creative thinker

### Critical Thinking Skill

1. Meaning
2. Definitions
3. Importance of Critical thinking skill
4. Characteristics of a good critical thinker
5. Ways and strategies to develop critical thinking skill

### Skill of Coping with Emotions

1. Meaning
2. Basic emotions
3. Importance
4. Mechanisms to cope with emotions

### Skill of Coping with Stress

1. Meaning
2. Types of stress
3. Signs of stress
4. Mechanisms to reduce stress

### Empathy

1. Meaning
2. Definitions
3. Basic components
4. Characteristics of an empathetic person
5. Techniques to enhance empathy

(iii) Weightage to content units


**Table 3.6 Weightage to Content Units in the Situational Test**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Content Units</th>
<th>No. of Questions</th>
<th>Weightage of Marks</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Life Skills- Concept</td>
<td>2</td>
<td>4.5</td>
<td>6.43</td>
</tr>
<tr>
<td>II</td>
<td>Self awareness Skill</td>
<td>3</td>
<td>6</td>
<td>8.57</td>
</tr>
<tr>
<td>III</td>
<td>Interpersonal Skill</td>
<td>1</td>
<td>5</td>
<td>7.14</td>
</tr>
<tr>
<td>IV</td>
<td>Effective Communication Skill</td>
<td>2</td>
<td>6</td>
<td>8.57</td>
</tr>
</tbody>
</table>
Table 3.7 Weightage to Objectives in the situational Test

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Objectives</th>
<th>No. Questions</th>
<th>Marks</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Remember</td>
<td>4</td>
<td>8.5</td>
<td>12.14</td>
</tr>
<tr>
<td>2.</td>
<td>Understand</td>
<td>4</td>
<td>11</td>
<td>15.71</td>
</tr>
<tr>
<td>3.</td>
<td>Apply</td>
<td>4</td>
<td>6</td>
<td>8.57</td>
</tr>
<tr>
<td>4.</td>
<td>Analyse</td>
<td>8</td>
<td>22</td>
<td>31.43</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluate</td>
<td>5</td>
<td>15</td>
<td>21.43</td>
</tr>
<tr>
<td>6.</td>
<td>Create</td>
<td>2</td>
<td>7.5</td>
<td>10.71</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>

(iv) Weightage to objectives

Determination of objectives has a significant role in construction of any achievement test. The following objectives were set for testing: i) Remember, ii) Understand, iii) Apply, iv) Analyse, v) Evaluate, and vi) Create. Weightage to different objectives in the test are given in Table 3.7.

(v) Preparation of the Blueprint

The blueprint is a three-dimensional table including coverage of content, objectives and type of questions. A blueprint was prepared and discussed with experts. The cell in the blueprint represents the number of items to be included in the test in relation to any particular objective. (Please refer the blueprint of Situational Test in appendix VI).

(vi) Validity of the Situational test

Validity is the quality of the research tool or procedure that measures what it purports to measure. A tool is said to be valid if it possesses content validity, face validity and intrinsic validity.

a. Content Validity Content validity shows the adequacy of the content of a test. The tools used in the present study possess the Content validity. The items in the tools were based on the relevant Literature and consultation with experts in...
related field. Their valid suggestions were taken into account while constructing each scale used in the study and hence the tools possess content validity.

b. Face Validity - It refers to the way the test appears to those it is meant for, to experts and educationalists, that is, the test items should be related to the variables being measured. The face validity of the Situational Test was found to be appears high as items prepared were given to experts in the area of Life Skills. They were asked to reflect on how well each question measures the construct. Their opinions, reviews and comment/feedback were then analyzed. Items with highest agreement by judges were included in the scale. Thirteen statements were found irrelevant and were removed from the life skills scale. The other changes suggested were mainly structural and linguistic. The valuable suggestions of experts were incorporated were considered to modify the preparatory form of situational test and the final form of situational test was evolved.

(vii) Preliminary information such as Test-length, time, maximum marks, instructions for answering and scoring procedures of the test
The investigator included thirty items in the final situational test and the time decided to answer the test is sixty minutes. The maximum mark of the test is seventy. The subject is instructed to response as per the instruction for each question in the situational test.

(viii) Piloting a Situational Test and evolving its final form
For the pilot administration of the scale, fifty pre-service teachers of B. Ed. colleges of VNSGU, Surat were purposively selected as sample for the pilot testing of Life Skills Scale. The time was recorded for completing of Situational Test for deciding the time limit. Considering it, 60 minutes was decided for final form of Situational Test. By considering pilot subjects’ responses and investigator’s participative observations during pilot testing of the life skills scale, the suggested changes were made. The insights and suggestions gained from the processes of validation and piloting of the preliminary form were the basis for shaping and modifying the final form of Situation Test. Tasks such as preparation of the blue print, construction of test
items, arranging the written items, printing question papers and response sheets with necessary instructions were carried out in this stage. And the final form of situational test was evolved, which is presented in appendix II.

3.2.7.3. Programme Feedback Questionnaire
Programme Feedback Questionnaire was prepared by the investigator to gain feedback on the Life Skills Programme. Opinions of student teachers were asked to evaluate the programme in the form of open and close ended question forms, which is placed in Appendix III.

3.1.7.4 Focused Group Discussion
It is an act for involving the subjects into a brainstorming session and makes them reflect over the impact of implemented Life Skills Programme. Here the subjects get involved into a kind of discussion that is constructive criticism wherein the researcher acts as guide and monitors the discussion. Focussed Group Discussion can be used to collect information for many purposes, such as conducting a need assessment or evaluating a program. In the present study focused group discussion with focused facilitative questions was carried out to evaluate the programme. Through Focused Group Discussion, opinions of teacher trainees were collected about LSP were collected on how the activities of the LSP helped them to think and reflect for their improvement.

3.1.7.5 Field Notes and Observations
Field Notes were maintained by the researcher; and observations and expressions reflected through focused group discussion, programme feedback questionnaire, observations by the researcher, and the teacher educators’ responses regarding behaviours of pre-service teachers were noted down.

3.1.8 Validity of Experimental Design
Data Validity measures is an important decisive factor for assuring the quality of the data collection procedures for any research. Validity provides information on the extent to which the procedure really measures what it is supposed to measure. The data collection procedures create some effect on the data as it is difficult to say that there are any data collection procedures that do
not affect the data (Seliger and Shohamy, 1999). In other words, all data collection procedures have some effect on the type of data elicited. However, it is more important that the researcher is aware of these effects in explaining the results obtained. “Over the years, researchers have developed a number of techniques to assure the quality of the research and the quality of data collection procedures used in the research” states Seliger and Shohamy (1989:184).

The internal validity refers to the results that are because of the factors that have been selected by the researcher, rather than other factors that the researcher hasn’t controlled. Factors that could influence the internal validity of a research study are usually related to the participants and the instrumentation. The current research has ensured internal and external validity of the study for various aspects of the study.

3.1.8.1 Internal Validity

W. Wiersma (2009); S. G. Jurs (2009, p.139) state that “Internal validity questions whether the experimental treatment really makes a difference in the dependent variable”. Seliger and Shohamy (1989, p.105) note that “the internal validity of a research study concerns with being able to state that relation between the independent and depended variables is unambiguous and not explainable by extraneous variables”. Thus the internal validity refers to the results that are because of the factors that have been selected by the researcher, rather than other factors that the researcher hasn’t controlled. Factors that could influence the internal validity of a research study are usually related to the participants and the instrumentation. The current research has ensured internal validity of the study for various aspects of the study which is mentioned below. As noted by Seliger and Shohamy (1989), the internal validity of the participants in a research study could be affected by various factors such as history, attrition, maturation, Testing, Instrumentation and differential selection.

History: Any study that takes considerable amount of time to complete can be affected by this if care is not taken (Perry, 2005). The shorter the duration of an experiment, the less likely history is to be a threat to validity.
The current study was conducted over a period of three weeks, the 35-hour program, and daily approximately 60-100 minutes; therefore the threat due to the history factor did not exist.

**Maturation:** The threat related to the *maturation* of participants is similar to that caused by history, but deals with natural changes taking place over time in the participants such as emotional states, physical coordination and strength, or cognitive structures (Hiradhar, 2012). It is an influencing and significant factor with younger subjects than with older ones (Seliger and Shohamy, 1989). Studies that take place over longer periods of time are potentially subject to this interference. However, this effect of maturation of the subjects was nullified in the present study because it spanned a short period of three weeks only and the subjects were mature as the study was conducted on pre-service teachers.

**Testing:** The awareness and experience of pre-test and its content serves as the learning experiences and therefore affects the scores of the post test performance. This factor was also controlled as The researcher selected the control group against the experimental group, so the current events created the equal effects to all groups of the experiments. So the effect of pre-test was equal on both groups.

**Instrumentation:** The research tools used in the study were self-constructed by the investigator and finalized with the help of experts. Further the experiment was implemented by the investigator herself throughout the study. So the effect of instrument decay was also controlled.

**Selection of groups:** The third factor, differential selection could occur whenever a researcher does not randomly select the samples when forming different groups for comparisons (Perry, 2005). The current study did not use randomly selected subjects and used quasi- experimental design named Non-equivalent Pre-test Post life skills Control Group Design. When the group of subjects are not randomly assigned to groups, group differs in their level. Use
of statistical measures nullifies this effect. Here, non-parametric tests named Mann Whitney U and Wilcoxon signed rank test were used.

**Experimental Mortality:** If the subjects drop out from the experiment on a non-random basis due to any reason, it affects the result automatically. The researcher tried to sustain interest of the subjects and succeed not to decrease the sample size. On the contrary, the subjects were found more enthusiastic and motivated each day to take up next activity of the programme. Hence this effect was also prevented.

**Attrition:** Another factor that may have an effect on the internal validity is *attrition*. In a longitudinal study that takes extended time to complete research procedures, the subjects may lose interest and drop out or may remain absent due to health problems. To avoid this problem, it is sometimes preferred to begin with a larger than necessary number of subjects. This factor did not affect the results as the programme lasted for three weeks only and the study could retain 41 participants among 46. Therefore 5 participants who were irregular were discarded and were not counted for statistical analysis.

The other factors like consistency of result, expectation, Novelty of the experiment, John-Henry effect, and Hawthorne effect could not be controlled fully or partially.

3.1.8.2 External validity
About external Validity, W. Wiersma (2009) and S. G. Jurs (2009) state that external validity certainly concerns the populations to which the researcher expects to generalize the results. There may be factors such as size of the class, type of school, and the like, across which the research wants to generalize. In the present study, the external validity of the experiment was controlled with reference to the following factors.

**Multiple Treatment Interference:** When the same subjects receive two or more treatments (as in repeated design). There may be a carryover effect
between treatments such that the results cannot be generalized to a single treatment. As the present study used Pre-test Post life skills Non-equivalent Control Group design and each subject of both the groups were assigned only one treatment.

*Selection treatment interaction:* The selection and random assignment of subjects to the groups was not possible in this study, the quasi-experimental design was used and the statistical techniques appropriate to quasi design were used to adjust differences in groups.

*Effects of Experimental Arrangements:* Both groups were treated in the same way in terms of arrangements in all respects except the treatment itself.

*Experimenter Effects:* The observations made for Focused group discussion and field notes were noted by the person other than the researcher to avoid experimenter biasing. The other factors like consistency of result, expectation, Novelty of the experiment, John-Henry effect, and Hawthorne effect could not be controlled fully or partially.

### 3.1.9 Procedure of Data collection

Mutual consent was taken from the trusties and principal of the Vivekananda college of Education as the pre-service teachers of this college were considered as experimental group to carry out intervention. The other college- The S.R.Patel College of Education was considered as a control group and the principal of that college was contacted to allow implementing the Situational Test, Life Skills Scale and the Life Skills Theoretical Orientation on pre-service teachers of the college. The Situational Test and Life skills Scale in the beginning was given to both the groups to find out pre-level of life skills (traits/attributes/constructs) among pre-service teachers.

The pre-service teachers of Vivekananda college of Education were selected as experimental group. The Principal allotted daily 90-120 minutes for 21 days. Then the developed programme was implemented in intensive and experiential manner on the experimental group for 35 hours,
daily 90-120 minutes, from 15\textsuperscript{th} July to 8\textsuperscript{th} August, 2015; excluding holidays. A thirty five hour Life Skills Programme was designed, produced and delivered for the present study. A total 35 sessions, were included the implementation of the Pre-test, orientation sessions and actual programme sessions exposing the participants to practice life skills, Life Skills Scale as post assessment, situational test and programme feedback sessions. Each session of the programme was followed by Self-awareness, Exercise/Activity, Discussion, and feedback and Reflect. At the end, Life Skills Scale as post assessment, situational test were administered on both the groups to evaluate the effectiveness of the LSP. In addition, Programme Evaluation Questionnaire and Focussed group discussion were carried out to ask opinions and feedback on the impact of the programme in the form of their experiences, reflections and opinions. (Refer 4.3.8 Life Skills Programme in chapter 4)

The pre-service teachers of The S.R.Patel College of Education were selected as control group and were exposed to Life Skills Theoretical Orientation through conventional approach. The Principal allotted daily 90-120 minutes for 21 days. Life Skills Orientation was given for 30 hours, daily 90-120 minutes, from 15\textsuperscript{th} July to 8\textsuperscript{th} August, 2015; excluding holidays. The outline of Life Skills Orientation was presented in chapter 4 (Refer 4.3.8 Life Skills Programme in chapter 4).

3.1.10 Procedure of Statistical Analysis of the Data
Nonparametric techniques are used when there is a serious violation of the distribution assumptions of parametric tests. These tests are considered as less powerful compared to the parametric tests and appropriate when the data measured are on scales that are not interval or ratio. As non-parametric tests are generally designed for the analysis of nominal or ordinal level data, they are often ideally suited for use in social work research (Weinbach & Grinnell J., 1998: 114). Non parametric statistical tests were employed for the present study as the sample was convenient sample and not randomized; and the data obtained were measured on an ordinal scale. SPSS version 10 was used for data entry and analysis. The following non-parametric techniques were used for data analysis.
3.1.10.1 Mann- Whitney U Test (Wilcoxon rank sum W test)

Mann-Whitney U-test is also known as the Mann-Whitney-Wilcoxon (MWW) or Wilcoxon Rank-Sum Test. Parametric test ‘t-test’ for two samples, is based on the assumptions that the difference between the samples is normally distributed, or that the variances of the two populations are equal. When the validity of the assumptions of t-test is questionable, the Mann-Whitney U-Test is used. The Mann-Whitney Test (M-W) is a useful nonparametric used as an alternative to the two-sample t-test.

- Conditions of using Mann- Whitney U Test (Wilcoxon rank sum W test)
  1. When the two data samples are independent and if they come from distinct populations.
  2. When the dependent variable is measured on ordinal scale.
  3. If the dependent variable is measured either on ratio or interval, but you cannot assume that the two populations form the normal distribution.
  4. When there is one independent variable that consists of two categorical, independent groups (i.e., a dichotomous variable) include gender (two groups: "males" or "females").

- Writing hypothesis for Mann Whitney U test
  1. To state the null and alternative hypotheses for a Mann-Whitney U test, and then state this was accepted and rejected at the end of the experiment.
  2. One such null hypothesis and the alternative hypothesis in case of Mann Whitney U test might be:

  \[ H_0: \text{The distributions of scores for the two groups are equal} \]
  \[ H_{A1}: \text{the distributions of scores for the two groups are not equal} \]
  \[ H_{A2}: \text{the mean ranks of the two groups are not equal} \]
  \[ H_{A3}: \text{the medians of the two groups are not equal} \]

- Process of calculating Mann Whitney U test
  1. Writing the hypotheses:
     \[ H_0: \mu_{Q\text{Prog}} = \mu_{No\text{Prog}} \]
H_1: \mu_{Q\text{ Prog}} \neq \mu_{\text{No Prog}}

2. Determine if the hypotheses are one-tailed or two-tailed.

3. Specify the \( \alpha \) level: \( \alpha = .05 \)

4. The Mann-Whitney U test ranks each score of the dependent variable (e.g., life skills scores), irrespective of the group it is in (e.g., males or females), according to its size, with the smallest rank assigned to the smallest value. The ranks obtained for males are then averaged, as are the female's ranks. This way mean rank for males and a mean rank for females were found. The null hypothesis of the Mann-Whitney U test checks if the distributions are identical i.e. the mean rank will be the same for both males and females. However, if one group (e.g., females) tends to have higher values than the other group, that group's scores will have been assigned higher ranks and will have a higher mean rank (and vice-versa for the group with lower scores). It is that difference in mean rank, is tested by the Mann-Whitney U test for statistical significance and finally calculates the U value.

5. Compare the U value and its significance p value with significance level at \( \alpha \) level: \( \alpha = .05 \) or \( \alpha = .01 \)

6. And at the end, the null hypothesis is rejected if one group is significantly higher than the other group.

3.1.10.2 Kruskal-Wallis Test

Kruskal Wallis Test is similar to the K samples in which the objective is to check whether the K independent samples are from K identical populations. This is called as H test. This is a non-parametric test which is an alternative to single factor ANOVA (R. Panneerselvam, 2007:350). As same in Mann-Whitney Test, in the Kruskal Wallis Test also all the scores are pooled down together and their ranks are recognized. The smallest value of the score is ranked 1 and the largest value of the score is ranked N. If there is tie, then the ranks of the scores which are having tie, are modified by assigning average
rank as explained in case of Mann Whitney U test. H follows chi square distribution with (K-1) degrees of freedom.

3.3 Conclusion
This chapter described the methodological concerns and data collection and data analysis procedures employed for the present study. The next chapter represents development of Life Skills Programme.
CHAPTER FOUR
INTERVENTION: DESIGN AND DEVELOPMENT OF
LIFE SKILLS PROGRAMME

4.0 Introduction

4.1 Intervention Programme (LSP): Designing and developing of a programme

4.2 Phases of the Life Skills Programme
   4.2.1 Phase 1: Identification of a problem and Analysis of Information Gathering
   4.2.2 Phase 2: Designing and developing of a Life Skills Programme
      4.2.2.1 Learning Outcomes of the Programme
      4.2.2.2 Methods/techniques/strategies for imparting life skills
      4.2.2.3 Experts’ Reviews
      4.2.2.4 Piloting of the programme and evolving final form of the programme
   4.2.3 Phase 3: Evaluating and evolving advanced development of the programme
   4.2.4 Phase 4: Disseminating the intervention- Life Skills Programme (LSP)

4.3 About Life Skills Programme
   4.3.1 Introduction
   4.3.2 Programme Content
   4.3.3 Programme Elements
   4.3.4 Aim of the Programme
   4.3.5 General Outcomes for Programme
   4.3.6 General format of sessions
   4.3.7 Rules for each session of the programme
   4.3.8 Index of Life Skills Programme
   4.3.9 Life Skills Programme
   4.3.10 Life Skills Theoretical Orientation

4.4 Conclusion
CHAPTER FOUR
INTERVENTION: DESIGN AND DEVELOPMENT
OF LIFE SKILLS PROGRAMME

4.0 Introduction

This chapter involves designing and developing of a programme as the present study is developmental cum intervention research. Designing and developing a programme is a systematic process which involves certain stages to follow. There needs to be clear and specific description of each stage/phase and its related activities. For implementation of the life skills programme, the investigator is required to draw outline about each activity of the programme, explanation of the process, clarity of methods and strategies and role of facilitator. This chapter amalgamates these processes as a part of research.

4.1 Intervention Programme (LSP): Designing and developing of a Life Skills Programme

This chapter involves designing and developing of a programme as the present study is developmental cum intervention research. Design and development are the two characteristics of any intervention.

By studying the literature on concept of intervention by Fraser and Galinsky (2010), some characteristics of intervention research are identified:

1. The process of designing an intervention is both evaluative and creative,
2. It requires evaluating and blending existing research and theory with other knowledge (e.g., knowledge of the practice setting) and creating intervention principles and action strategies,
3. The process of creating an intervention is generative and requires knowledge of change strategies plus the ability to form learning activities that have a cultural and contextual metric,
4. Intervention research grew to have two complementary processes:
   a. the design of a program, and
b. it’s development over time in a series of studies (Fraser and Galinsky, 2010:460).

About Design Fraser and Galinsky, (2010:459) states, “Design includes determining the extent to which an intervention is defined by explicit practice principles, goals, and activities”.

According to Business Dictionary, “Development is an extension of the theoretical or practical aspects of a concept, design, discovery, or intervention”.

Rothman and Thomas (1994) had first proposed an intervention research model in social work and sketched out six phases of intervention in a logical order.
They are as follows:
Phase: 1 Problem analysis and project planning
Phase: 2 Information gathering and synthesis
Phase: 3 Design of the intervention
Phase: 4 Early-development and pilot testing
Phase: 5 Experimental evaluation and advanced development
Phase: 6 Dissemination (Rothman and Thomas Model, 1994: 33-34)

Intervention manuals are a core feature of cognitive behavioural interventions. Intervention research is best suited to change cognition and behaviour. Therefore intervention is used as the present study is aimed at developing core life skills i.e. a group of psycho-social skills.

4.2 Phases of the Life Skills Programme
Programme development requires certain phases to follow as explained in 4.1. Rothman and Thomas Model (1994: 33-34), The Model of Edna Rooth (1997), De jong et.al (1994:1-9) and Morganett (1994), NIMHANS modules, and WHO document were referred to develop a Life Skills Programme to get insights about the programme elements, programme activities, methods and
techniques relevant to core content relevant to each activity. This chapter gives clear specification about each phase of the programme.

Rothman and Thomas Model (1994: 33-34), The Model of Edna Rooth (1997), De jong et.al (1994:1-9) and Morganett (1994), NIMHANS modules, and WHO document were studied to get insight about developmental purpose. The phases of intervention programme (LSP) for the present study were outlined as follows:

- **Phase-1: Identification of a problem and Analysis of Information Gathered**
- **Phase-2: Designing and developing of a programme (includes structures and processes) and evolving advanced development of the programme**
- **Phase-3: Evaluating the advanced form of Life Skills Programme through actual experimentation**
- **Phase-4: Disseminate the program findings**

### 4.2.1 Phase 1: Identification of a problem and Analysis of Information Gathered

Once the problem is identified, the next phase is to gather information relevant to the area concerned. For that review of the related literature, in terms of analysis of theoretical framework and studies conducted in that particular area, was carried out. For the present study, content related to ten core life skills suggested by WHO (Self awareness skills, interpersonal Skill, Effective Communication skill, Problem-solving skill, decision making skill, Critical thinking skill, creative thinking skill, Coping with stress, Coping with emotions and empathy) were considered as the core content for the programme. For preparing life skills programme, content related to these life skills available from various online and offline resources was utilized and analyzed. This phase comprises of exploring the information sources, carrying out extensive review, studying in detail the life skills and life skills theories, analyzing successful models of life skills and identifying the functional elements of such models.

Under this phase, the following tasks were carried out:
• Collecting the literature available relevant to life skills and life skills education, life skills models etc. and carrying out extensive reviews,
• Study and analyze the information collected (specifically the life skills and its indicators, life skills models)
• And then to identify the key functional elements/components to match the present intervention (in the view of deciding strategies and techniques for imparting life skills education according to nature of life skills),

The models of Rothman and Thomas (1994: 33-34), Edna Rooth (1997), Dejong et.al (1994) and Morganett (1994) were referred and components (facilitation, group work, experiential learning and continuity) were adapted as the foundation for the preparation of the activities of the programme for the present study. Also the researcher had referred NIMHANS modules for adolescents to understand and conceptualize the group activities for development of the programme. Further the techniques and activities suggested by World Health Education (WHO) like situational discussion, Role Play, Self-reporting, Story Telling, Brain Storming and Games were employed in the programme development.

4.2.2 Phase 2: Designing and developing of a programme (includes structures and processes of a programme)

The tasks carried out under this phase were:
1. Formulating programme outcomes and
2. Describing methodology for imparting life skills among prospective teachers.
3. Developing primitive programme on life skills enhancement including learning outcomes of a programme, index of a programme activities, session wise objectives, essential content relevant to each programme activity to reinforce the core life skills, and follow-up of each activity,
4. Experts’ review
5. Piloting the primitive form of the programme and assessing the feasibility and validity of the programme.
According to Rothman and Thomas (1994: 33-34), two products results from intervention research:

a) The research data that reveal the relationships between the intervention and the behaviours/outcomes that answer/define the problem.

b) The intervention programme with a detailed note of strategy, technique, processes, training materials/modules, and facilitators’ notes.

A wide range of related literature on life skills was reviewed. It includes approaches to life skills, life skills programmes and modules for adolescents, youth and teachers; the components of life skills Programme and its facilitation and developmental tasks. Based on the guidelines of the reviewed literature, the researcher prepared the primitive draft of LSP.

4.2.2.1 Learning Outcomes of the Programme
According to Fulks J. & Pacheco B. et al. (2001)“Learning outcomes are the specific observable or measurable results that are expected subsequent to a learning experience, that may involve knowledge (cognitive), skills (behavioural), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process.” The knowledge, skills/abilities or attitudes that the learners accomplish at the end of the programme which they did not expose previously, is called Learning outcomes. In other words, the end product of any learning process is called “learning outcomes”. Formulating the learning outcomes is very important in any teaching-learning process because it guides the content and the methodology to reach those outcomes. The programme outcomes formulated for developing life skills are mentioned in 4.2.5.

4.2.2.2 Methods/techniques/strategies for imparting life skills
By analyzing the literature on life skills, various methods and techniques for imparting life skills to teachers were identified. There are various teaching-learning methods that could be utilized to impart life skills education.
De Jong, et al., 1995:104 (as cited in Bender C. 2002) suggested following methods for life skills education:

- Self-reflective exercises,
- Work and community experience, where learners are placed in work and community settings,
- Peer tutoring and peer learning where learners teach, support and learn from one another,
- Simulation exercises,
- Role-playing,
- Debates,
- Excursions and visits to places of interest,
- Projects, such as community outreach.

UNICEF promoted the life skills approach to develop life skills, which are explained as:

a) The Skills – The life skills are a set of psychosocial and interpersonal skills which are knit with each other. For example, problem-solving is likely to involve creative and critical thinking components and decision-making.

b) Content - To learn and develop life skills effectively, the content should be relevant and specific to the nature of the particular skill.

c) Methods – Appropriate methodology plays very important role in life skills education. Methods and techniques decide the teacher-student and students-students interactions. Certain skills i.e. social skills and psycho-social skills cannot be learned only through reading the theory. For example one cannot learn interpersonal skills by sitting alone and reading or practicing the skills; instead he needs a people to interact with.

The models of Rothman and Thomas (1994: 33-34), Edna Rooth (1997), Morganett (1994), NIMHANS modules, and WHO document helped the researcher to get insight about methodology for imparting life skills. The format suggested by UNICEF with the skills, content and methodology was adapted to develop the programme. The methods and techniques employed in this study are mentioned as follows. The programme outcomes, activity objectives, material and time required, process and note for the facilitator

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were used as the foundation of each activity in the programme. As suggested by Unicef, the life skills are a set of psychosocial and interpersonal skills which are knit with each other. Therefore the activities of a programme designed in such a way so that one or more skills can be learned collectively.

Table 4.1

Methodology employed for imparting life skills among prospective teachers

<table>
<thead>
<tr>
<th>Methods/Techniques</th>
<th>Skills to be focused</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Discussions</td>
<td>Effective communication</td>
<td>1. First step is to set seating arrangement for discussion.</td>
</tr>
<tr>
<td></td>
<td>Critical thinking skill</td>
<td>2. Identify and decide goal to be achieved for the discussion and communicate it clearly to learners.</td>
</tr>
<tr>
<td></td>
<td>Problem Solving skill</td>
<td>3. ask them to look the situation/issue/case from various perspectives.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Ask open-ended questions to generate a discussion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Keep track of Discussion progress.</td>
</tr>
<tr>
<td></td>
<td>Individual, pair and group activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>which involve discussions</td>
<td></td>
</tr>
<tr>
<td>2. Brainstorming</td>
<td>Critical thinking skill</td>
<td>1. First step is to decide a leader and a recorder.</td>
</tr>
<tr>
<td></td>
<td>Creative thinking skill</td>
<td>2. Then pose the issues/problems/puzzles and ask to come out with ideas that come to their minds.</td>
</tr>
<tr>
<td></td>
<td>Problem Solving</td>
<td>3. List out ideas on the board so that everyone can see them.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. With help of class</td>
</tr>
</tbody>
</table>
| 3. **Role plays** | Assertiveness  
• Situations  
• Script  
Logical thinking skill  
Interpersonal-communication  
(listening, speaking skills) | 1. First explain the situation on which they have to role play. They must understand the situation well.  
2. Ask the learners to form a group and assign the roles. Ask them to think of all related perspectives on situation.  
3. Give necessary and timely instructions.  
4. Ask them to role play.  
5. Discuss critically on what happened. |
| 4. **Games and simulations** | Interpersonal skills  
(sportsmanship, team-spirit)  
Coping with stress and emotions | **Games:**  
1. Select games which are enjoyable.  
2. Pose games before learners and remind them fun is more important, not to win.  
**Simulations:**  
1. Give learners a situation which are brief and ask them to imagine themselves in that particular situation and ask them to feel an experience that might occur in another setting. |

Based on the fact that  
1. Each of us like to play games and forgets any kind of inhibition while playing and  
2. Games help to for relaxation and enjoy.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **5. Story making/telling** | Effective communication  
Creative thinking/writing  
Problem Solving Skill | 1. Give simple and clear points or pictures related to story. Story should be interesting enough to learners.  
2. Make sure that stories should be related to the lives of the students, interesting, short and  
3. The story should dramatic enough to include elements like happiness, sadness, excitement, courage, serious thought, decisions, and problem solving behaviours.  
3. Ask them to present their story in a dramatic manner.  
4. Select best story out of all. |
| **6. Debates** | Higher thinking Skills  
Critical thinking Skills  
Effective communication  
Problem solving skills | 1. Allow learners to take positions (for or against) of their choice.  
2. Provide time to study/research on their selected topics.  
3. Make sure that each one will get the chance to speak.  
4. Make sure that no one dominate to others. |
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| 5. Maintain control and keep the track of debate on right path. | 7. **Self Reporting**  
- **Introspection** | Self awareness skill  
Critical thinking skill | 1. Giving them open ended or close ended or mixed questionnaire sheet on which the learners reflect about them. |
|   | 8. **Audio-visual activities** | Critical thinking skills  
Coping with emotions | 1. Show videos/clips.  
2. Instruct them to reflect their thoughts and feelings. |
|   | 9. **Case Studies** | Critical thinking skill  
Problem solving skill  
Empathy | 1. Give learners cases to study.  
2. Ask them to analyze and reflect on cases and find out the solutions. |
|   | 10. **Songs** | Critical thinking skill | 1. Songs (such as poems, devotional songs) or modified songs can be used hit the right message and transmit the concept of a life skill effectively. Once the facilitator can explain the concept by using one or two examples. Then the selection of a song can be left on participants. |
|   | 11. **Projecting techniques** | Critical thinking skill | 1. Project pictures before the group.  
2. Instruct them to observe the picture carefully and critically.  
3. Ask them to write story/message based on it. |
For the development of Life Skills Programme, the investigator had referred documents of World Health Organization (WHO) and NIMNHAS Model for providing Life Skills Education. In the documents on Life skills Education, World Health Education (WHO) has suggested certain methods/techniques like situational discussion, Role Play, Story Telling, Brain Storming and Games. The investigator had referred modules prepared by NIMNHAS for adolescents to understand and conceptualize the group activities for programme development and adopted certain methods/techniques tried depending on the needs of different life skills. The programme includes total thirty eight activities with a focus on various techniques like situational discussions, games, puzzles, role Play, story making/telling, brainstorming, self reporting; and display of videos and clippings from films as well as you tube.

4.2.2.3 Experts’ Reviews
To validate the content of the developed programme by the researcher, the programme was given to experts of content and methodology for their expert comments.

The following experts were consulted for developing the programme and constructing the tools:

- Dr. Sulbha Natraj, the Principal of Waymade College of Education, Vallabh Vidyanagar, Anand. The college is one of its kinds that offer elective courses on Life Skill Education. The purpose was to get her ideas and feedback on developing life skills Programme and instruments for Participants.
- Dr. Sheetal Helaiya, an Assistant Professor, IITE, Gandhinagar, whose doctoral research was aiming on developing a life skills programme for teacher trainees and evaluating its effectiveness, was consulted to sought her valuable and constructive feedback in developing Life Skills Scale and Life skills Programme.
- Dr. Kirti Matlivala, Associate professor at Department of Education and the counselor at University Counseling Centre, Veer Narmad
South Gujarat University, Surat, was consulted to get her ideas and feedback on developing life skills Programme for Pre-service teachers.

- Dr. Ummed Singh, the Professor, Department of Education, Veer Narmad South Gujarat University, Surat- expert on developing programme modules and computer and ICT, whose inputs were also sought on developing life skills Programme and instruments for Pre-service teachers and was also consulted for the graphics to represent the audio-visuals (includes pictures, images, movie clippings etc.).

- Dr. Gaurang Rami, the Professor, Department of Economics, Veer Narmad South Gujarat University, Surat- the expert in Research Methodology, Statistics and SPSS, who was consulted on the tools and statistical methods used.

- Dr. Kiran Chauhan, the Assistant Professor, Government Engineering College, Surat- the expert in Linguistics, was consulted to evaluate linguistic errors of the tools prepared. Further he teaches communication skills and life skills to engineering students. He gave his guidance in developing activities suitable to each skill.

- Dr. R. G. Kothari, Professor at The M.S.University of Baroda, Vadodara- the expert in Statistics and Education, was consulted to invite his critical inputs about tools prepared.

After getting comments and feedback on the programme and programme activities, following changes were made in programme.

1. Removing irrelevant and inappropriate items and adding some necessary items,
2. Arranging programme content in a logical order,
3. Correcting linguistic and structural errors
4. Adding facilitator’s note for each activity of the programme

4.2.2.4 Piloting of the programme and evolving final form of the programme

According to Rothman and Thomas (1994:36-37), a primitive design is evolved to a form that can be evaluated under field conditions during the phase of early development and pilot testing. This phase comprises of conducting a pilot testing. Rothman and Thomas (1994: 36) state: “Pilot tests
are implemented in settings convenient for the researchers and somewhat similar to ones in which the intervention will be used”. They further state that pilot tests are designed to determine whether the intervention programme will work or not. This phase is important as it includes the important function of developing a primary intervention programme and conducting a pilot testing.

Rothman and Thomas (1994; 37) believe that the use of pilot tests and field replications to test and refinement of the intervention distinguishes research from programme evaluation.

There are four activities of this phase:

1. Choosing an appropriate experimental design
2. Collecting data from the sample and analyzing them through appropriate techniques
3. Improving the programme
4. Developing set of rules for programme execution

A group of twenty four trainees of Vivekananda College for B.Ed. of Veer Narmad South Gujarat University were selected pilot study through convenient sampling. They were not the part of the sample for the main study. Single group pre-test post life skills design was employed for pilot study. The pre-test and post life skills were administered. No time limit was decided to complete these tests. Time taken by participants to complete these tests was recorded and time limit was set. The Life Skills Programme was implemented on the selected sample. The purpose of the pilot testing was:

- To test the practicability of the programme activities,
- To decide the time limit for final form of Life Skills Programme,
- To see the difficulty felt by participants to respond and to remove ambiguity in instructions and process,
- To evolve the final form of the programme.

The errors and limitations were detected. The changes suggested through the pilot testing were mainly structural and linguistic. The programme duration for pilot study was tentatively decided of 40 hours. The actual time was recorded to complete the pilot study. But by gaining insights from pilot study, the programme was reduced up to 35 hours. Furthermore, several informal
discussions were held with most of the participants to ask for their opinions about life skills program. Considering their suggestions and observations made by the researcher, adequate modifications were made to the Life Skills Programme. The modified sketch of the programme was again shown to the mentor and some of the experts. Experts suggested that a note for the facilitator needs to be made more detailed, whenever needed. Also the set of rules, the participants have to follow for the smooth functioning of the programme and for avoiding chaotic environment, were set. The Life Skills Programme was then modified with the problems encountered during its trial and a final form of Life Skills Programme was evolved which is portrayed in length in the section 4.3.8 of the same chapter.

4.2.3 Phase 3: Evaluating and evolving advanced development of the programme

This phase of the programme was focused on the evaluating the programme and advance development of the research. Developmental Research contributes much to the development of the field as a whole. It defines as the systematic study of designing, developing and evaluating programmes, process and products that must meet criteria of internal consistency and effectiveness (Holosko, 2015).

The first two phases of the programme were restricted to the designing and developing programme processes, whereas this phase focuses on the estimating the programme effectiveness in real field setting/actual experiment. The researcher was kept engaged in programme implementation, data collection and collected the data analysis to arrive at conclusion whether the programme estimated the efficacy.

During this phase, the following tasks were carried out by the researcher as explained (carrying out a main study and arrived at research findings):

1. Deciding the sample size,
2. Choosing an appropriate experimental design,
3. Implementing (replicating) the programme-LSP on the selected sample,
4. Collecting data from the sample and analyzing them through appropriate techniques,
5. Estimate the effectiveness of the study,
The first three phases were explained in detail in chapter 3 and the last two phases were discussed in chapter 5.

4.2.4 Phase 4: Disseminate the program findings
This phase of the programme in the present study focused on carrying out the following tasks:
1. Generalize and publish findings and programme material in the form of thesis;
2. Make recommendations for future researchers;
3. Suggest research implications for teachers, teacher-educators, parents, educational practitioners, and policy makers.
Under this phase of the study, the researcher was involved in listing the findings of the main study and to publicize them in the form of a thesis, which is explained in detail in chapter six.

4.3 About Life Skills Programme
4.3.1 Introduction
Life Skills Programmes are aimed to promote positive and acceptable behaviours and to modify the unacceptable behaviours learned in their early life which may transform into inappropriate and risky behaviour at a later stage of life. Life skills are set of psycho-social skills. Life Skills Programme helps to develop these set of life skills. Life skills programmes help children and youth to develop life skills. On one hand life skills help them to react and deal with daily life situations requiring decisions which may affect their lives. On the other hand life skills help facilitators, social workers, teachers and psychologists to get directions and to provide with aids to develop life skills among their children. Life skills are acquired and enhanced great through intensive, learner-centred and experiential environment wherein they get aware of skills and its significance, perform something, practise skills, generalise what they learned and try to apply in similar real life situations. Thus life Skills help learners to function confidently and competently in socially-psychologically competent manner with other people and with the community.
4.3.2 Programme Content

The Life Skills Programme (LSP) in this study focuses to develop the following skills:

1. Self-Awareness Skill
2. Interpersonal Skill
3. Effective Communication skill
4. Problem-solving Skill
5. Decision-making Skill
6. Creative Thinking Skill
7. Critical Thinking Skill
8. Coping with Emotions
9. Coping with Stress

The content analysis was carried out in order to get directions to develop and design a Life Skills Programme which is outlined as below:

1. Concept of Life Skills
   - Meaning
   - Definitions of Life Skills given by different organizations
2. Need and Importance of Life Skills
3. Classification of life skills according to various models
4. Core Life Skills suggested by WHO
5. Self-Awareness Skill
   - Meaning
   - Definitions
   - Importance
   - Indicators
   - Aspects of Self-awareness skill
   - Methods and techniques to improve self awareness skill
6. Interpersonal Skills
   - Meaning
   - Definitions
   - Process-Stages of relationship according to the Model of George Levinger (1983)
7. Effective Communication Skill
   - Meaning
   - Definitions
   - Communication Skill as a combination of other skills
   - Components of Communication Process
   - Explanation of Communication Process
   - Characteristics of an Effective Communicator
   - Methods and techniques to enhance effective communication skills

8. Problem-solving skill
   - Meaning
   - Definitions
   - Process- stages of problem-solving skill
   - Characteristics of a good problem solver
   - Methods and techniques to enhance effective problem solving skills

9. Decision making skill
   - Meaning
   - Importance
   - Process-Stages of Decision Making
   - Characteristics of a good decision-maker
   - Methods and techniques to improve Decision Making

10. Creative thinking skill
    - Meaning
    - Definitions
    - Importance of Creativity
    - Brainstorming as a technique to develop creative thinking skill
    - The rules of brainstorming and Ways to run brainstorming sessions
    - Characteristics of a good creative thinker
11. Critical thinking skill
   • Meaning
   • Definitions
   • Importance of Critical thinking skill
   • Characteristics of a good critical thinker
   • Ways and strategies to develop critical thinking skill

12. Skill of Coping with emotions
   • Meaning
   • Basic emotions
   • Importance
   • Mechanisms to cope with emotions

13. Skill of coping with stress
   • Meaning
   • Types of stress
   • Signs of stress
   • Mechanisms to reduce stress

14. Empathy
   • Meaning
   • Definitions
   • Basic components
   • Characteristics of an empathetic person
   • Techniques to enhance empathy

Each session/activity of a programme is like a piece of a puzzle and it is important to fit all the pieces of the puzzle together to build a whole Life Skills Programme.

4.3.3 Programme Elements
The Life Skills Programme used the following elements: facilitation, group work, experiential learning, reflection and continuity (adapted from the model of Edna Rooth (1997) for life skills education.

Facilitation:
Facilitation here means creating a conducive, healthy and favourable environment for learning, experimentation, exploration and growth.
Facilitating is a process of sharing, giving, and the mutual growth of all concerned.

**Group work:**
Group work here means the active participation of all learners in groups. Working in groups will help to facilitate the gaining of new knowledge, learning of new skills, and developing of new attitudes through group activities. The proverb that "none of us is as smart as all of us" should be the underlying principle of group work. Group work also promotes interdependence leading to independence.

**Experiential learning:**
Experiential learning is the process of making meaning from direct experience, i.e., "learning from experience" (wikipedia.org/wiki/Experiential learning). Teaching Life skills is not always taught directly but often learned indirectly through experience, exposure, revelation and practice. Experiential learning is participatory and cooperative act/task where everyone has something to teach and something to learn, and then sharing on what has been learned.

**Reflection:**
Giving exposure for experience is not enough as sometimes the meaning of experience may not clear and understandable. Interpretation and critical reflection are most important components that should be followed after experience. Learners must be given the opportunity to reflect, observe and re-evaluate their experiences. The process of Reflection here driven by providing worksheets as prompts, asking questions or by asking their opinions at the end of each session.

**Continuity:**
This is the way to make sure that there is a link, a logical flow and follow-up of each activity. Continuity reinforces the acquisition of new skills and helps with the development of life skills programme.

**4.3.4 Aim of the Programme**
The aim of the Life Skills Programme for pre service teachers is to promote adaptive and positive behaviours through the development of psycho-social skills, to change undesirable behaviours learned in their previous life and
contribute to the finest social performance of an individual in the classroom, school, college, family and in the community.

4.3.5 General Outcomes of the programme-LSP

The following are the programme outcomes that intended the results of Life Skills Programme.

After getting exposure to LSP, the pre-service teachers will be able to

1. Define self awareness and recognize its importance in their life.
2. Develop insights about self; learn to manage oneself and one's activities responsibly and effectively.
3. Define interpersonal skill and apprehend its importance in their life.
4. Work effectively and co-operatively with others as members of a team and a society.
5. Explain effective communication skill, its essential components, and the characteristics of an effective communicator.
6. Communicate effectively by using appropriate verbal and non-verbal cues through the exposure of activities.
7. Express their thoughts, ideas, feelings, and emotions effectively and appropriately whether in their personal or professional life.
8. Illustrate the decision-making process and problem-solving process.
9. Gather the information, analyse the information and critically evaluate information in problem-solving and decision-making situations.
10. Outline the meaning of critical thinking, characteristics of a critical thinking and importance of critical thinking particularly in teaching-learning and generally in their life.
11. Identify the problems, analyse each aspects of a problem, and take responsible decisions using critical and creative thinking.
12. To be skilled at assessing their decisions and make better decisions and choices about their lives.
13. Demonstrate creativity in the tasks assigned to them.
14. Develop ability to think creatively, uniquely and distinctively.
15. Identify stressors, differentiate between types of stress, signs of stress, and develop stress coping strategies to cope-up with stressful situations.
16. Identify the emotions they usually go through, differentiate between positive and negative emotions, and manage to cope-up with emotions.

17. Recognize the importance of empathy.

18. Learn to exhibit and develop sensitivity and empathy.

4.3.6 General format of sessions

The facilitator should prepare the group sessions: content, structure and resources in advance. Each session would comprise the following features:

a. **Self-awareness** (Relating self with the activity by sensory activities): It involves the use of sensory organs smell, hear, taste, feel, and see. Here the learner will get the opportunity to connect their relationship to the activity.

b. **Exercise/Activity** (Engaging the learners in experiential learning): It involves constructing an activity which allows opportunities for an in-depth exploration of the subject/theme. The activity should involve all learners at a personal and experiential level. The activity may be done individually or in a group (consisting of 4 to 6 learners) or in a large group context.

c. **Discussion and feedback**: It involves giving freedom and opportunity to learners to share their views, thoughts and feelings in small and large group with others.

c. **Reflect**: It involves allocating time for reflection and consolidation.

4.3.7 Rules for each session of the programme

The facilitator in harmony with all learners has to set a few base rules. The facilitator should be directive or authoritative to make the participants following the set rules, which is required for proper execution of the programme and programme activities. The following ground rules should be set:

- Each one has to come to sessions on time and ensure that no one skips any sessions.
- Each one will get the equal opportunity to speak and participate. When one learner speaks, everyone else listens.
- Always speak for yourself: "I statements".
• Give personal responses, rather than the interpretations of others.
• When you address someone, look directly at him/her instead of looking here and there and speak confidently. On the contrary, when someone addresses you, let him/her know how you feel about his/her statement to you.
• Be attentive of your body language as well as of that of others.
• Respect other peoples’ views.
• Learners must agree to keep the group’s activities and discussions confidential.
• When there’s a group activity, each member has to play certain roles and responsibilities. The following roles should be played by the learners in such sessions: Time-keeper; Note-keeper; Leader; Co-ordinator; Mediator; and Encourager.
• Learners must perform the group’s activities and discussions in an ordered and well-organized manner.

4.3.8 Index of Life Skills Programme

Table 4.2 Index of Life Skills Programme

<table>
<thead>
<tr>
<th>LIFE SKILLS PROGRAMME</th>
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</thead>
<tbody>
<tr>
<td>Learners: Pre Service Teachers</td>
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</table>

Duration: 35 Hours : 21 days (Everyday 90 to 120 Min)

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Theme/Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Session</td>
<td>Life-skills Scale to participants (as Pre-test: Baseline/Initial assessment: Questionnaire for participants)</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Introductory</td>
<td>Explanation of Life Skills Programme (LSP) (Programme orientation; Significance of life Skills in the Indian context, Rationale behind why we need to develop our life skills)</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Session-1</td>
<td>Make Introduction (Building relationships and rapport with each other) and letting know the participants about set ground rules/group norms</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity-1</td>
<td>Knowing Each Other-1</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity</td>
<td>Description</td>
<td>Duration</td>
</tr>
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<td>----------</td>
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</tr>
<tr>
<td>Activity-2</td>
<td>Knowing oneself-1</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity-3</td>
<td>Knowing Each other-2</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity-4</td>
<td>Knowing oneself-2</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity-5</td>
<td>The real me</td>
<td>50 Min</td>
</tr>
<tr>
<td>Activity-6</td>
<td>Solving dilemma-1</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-7</td>
<td>Creative writer-1</td>
<td>40 Min</td>
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<tr>
<td>Activity-8</td>
<td>Look it’s me</td>
<td>40 Min</td>
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<tr>
<td>Activity-9</td>
<td>Solving dilemma-2</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-10</td>
<td>My decision</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-11</td>
<td>One Minute</td>
<td>45 Min</td>
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<tr>
<td>Activity-12</td>
<td>I feel for you</td>
<td>50 Min</td>
</tr>
<tr>
<td>Activity-13</td>
<td>Live Problems Live Solutions</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-14</td>
<td>I can act</td>
<td>90 Min</td>
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<tr>
<td>Activity-15</td>
<td>Thinking out of the box</td>
<td>30 Min</td>
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<tr>
<td>Activity-16</td>
<td>Spark your creativity</td>
<td>20 Min</td>
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<tr>
<td>Activity-17</td>
<td>Analysis of Anecdotes</td>
<td>60 Min</td>
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<tr>
<td>Activity-18</td>
<td>Examine your motives of teaching</td>
<td>40 Min</td>
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<tr>
<td>Activity-19</td>
<td>Expressive me</td>
<td>30 Min</td>
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<tr>
<td>Activity-20</td>
<td>If the problem could speak......</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-21</td>
<td>Creative writer-2</td>
<td>45 Min</td>
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<tr>
<td>Activity-22</td>
<td>Solve puzzle</td>
<td>20 Min</td>
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<tr>
<td>Activity-23</td>
<td>Finding solutions</td>
<td>60 Min</td>
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<tr>
<td>Activity-24</td>
<td>Decide –right or wrong?</td>
<td>50 Min</td>
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<tr>
<td>Activity-25</td>
<td>Yahi hai right choice.....aha</td>
<td>60 Min</td>
</tr>
<tr>
<td>Activity-26</td>
<td>I can survive</td>
<td>30 Min</td>
</tr>
<tr>
<td>Activity-27</td>
<td>I can make a story</td>
<td>40 Min</td>
</tr>
<tr>
<td>Activity-28</td>
<td>Picture Reading</td>
<td>45 Min</td>
</tr>
<tr>
<td>Activity-29</td>
<td>My responsibility as a teacher</td>
<td>45 Min</td>
</tr>
<tr>
<td>Activity-30</td>
<td>Puzzle fun</td>
<td>25 Min</td>
</tr>
<tr>
<td>Activity-31</td>
<td>My dream collage</td>
<td>40 Min</td>
</tr>
<tr>
<td>Activity-32</td>
<td>Brain teasers</td>
<td>20 Min</td>
</tr>
<tr>
<td>Activity-33</td>
<td>Truth, Dare and Promise</td>
<td>60 Min</td>
</tr>
</tbody>
</table>
### Activity-34
My reaction 40 min

### Activity-35
Feel for you-2 50 Min

### Activity -36
How I decide 50 min

### Activity-37
How I react 40 Min

### Activity-38
Feel for you-3 60 Min

### Post-session
Post-test 60 Min

### Post-session
Situational Test 90 Min

### Feedback Session
Programme Feedback Questionnaire + Focussed Group Discussion 90 min

**Total** 35 Hours

### 4.3.9 LIFE SKILLS PROGRAMME

#### ORIENTATION SESSION

**Time: 60 + 30 minutes**

**Session 1**

The investigator will introduce him/her briefly as well as introduce the subject. Subjects will speak about his/herself, friends, school, family, and interests etc. to build rapport with each other.

**Session 2**

a. **Introduction of life skills**

The investigator will explain to the subjects about what life skills is, Significance of life Skills in the Indian context, their importance in everyday life, classifications of life skills etc.

b. **Explanation of Life Skills Programme (LSP)**

The investigator will explain to the subjects about aims of Life Skills Programme (LSP) and what they are expected to do. They will be suggested that their thoughts are important in relation with themselves, their world and the others. Life Skills Training can help to change cognition and behaviour. Here the investigator will work aligning with the following objectives:

1. To introduce learners about large and small group experience
and make them get familiar with and feel comfortable in the setting.

2. To make them understand and experience that the large group and smaller group are a safe environment for sharing ideas, feelings and behaviour.

3. To make them familiar about the set ground rules that participants have to follow throughout the programme activities.

4. To discuss the need to develop life skills in Indian context.

Activity 1

Title: Knowing Each Other-1

Duration: 30 minutes

Method: Game

Material: Handkerchief/ Ball

Life Skills Promoted: Self Awareness Skill, Interpersonal Skill, Oral communication skill

Process/Steps:

1. Make a group of 5-7 participants. Ask them to sit in a circle.

2. Give a handkerchief (or anything) to each group. Ask them to introduce oneself to group by passing handkerchief to the next member of the group. Continue till each one gets the opportunity. (Ex. Hello Krishna, I am Sarika………..)

3. Ask them to introduce the next group member till each one gets opportunity. (Ex. Hello! Krishna, He is Jay…………)

This exercise is very helpful to know the participants about each other and build rapport with each other that help to practise the activities of a programme.

Activity 2

Title: Knowing oneself-1

Duration: 30 minutes
**Method:** Self Reporting, Game

**Material:** Pen, Paper, worksheet

**Life Skills Promoted:** Self Awareness Skill, Interpersonal Skill, Communication Skill

**Process:**

1. Make a group of 5-7 participants.
2. Distribute a worksheet to each participant in a group.
3. Instruct each participant to carry a pen and a paper.
4. Ask them to read the filler on the worksheet and respond to each filler by introspecting themselves.
5. Then ask each group member to introspect and respond to the fillers on the worksheet within 5 minutes. The fillers would be:
   - My Name__________________________________________
   - My Parents’ name___________________________________
   - My Birth date ______________________________________
   - My nickname ______________________________________
   - My best friend/s____________________________________
   - My hobbies ________________________________________
   - My aim/goal of life __________________________________
   - My dreams _________________________________________
   - My ideal/ideals _____________________________________
   - I want to be like _________________________________
   - I want to become _________________________________
6. Ask them to share the details, as you mentioned in the worksheet, with each other in a group.
7. Now ask them to give details about the next member of a group, not about themselves.
8. Ask them to perform the given task in 5 minutes.

---

**Activity-3**

**Title:** Knowing Each other-2

**Duration:** 30 minutes
**Method:** Game

**Material:** Pen, paper

**Life Skills Promoted:** Interpersonal skill, self awareness skill

**Process:**

1. Ask the participants to divide in a group of 5-7 students.
2. Instruct each participant to take a pen and paper.
3. Ask each group member to observe the rest of the members of a group especially through eyes and body language and guess the personality traits of a person. They may use words/adjectives like Suspicious, Shy, Strong, Dishonest, Cold, Sexy, Confident, depressed, Determined, Aggressive, kind, Modest, marry go lucky, charismatic, cranky, Calm, marry-go-lucky, adorable, artistic, event-tampered, cool, lovable, content, modest, spiritual, cheerful, playful, witty, peaceful, intelligent, cunning, keen, jovial, jolly, sobby, etc. and many more which you find appropriate to him/her.
4. Write your observations on the paper.
5. Then ask each of the participants to come ahead on a stage and ask rest of the members to share their observations. Do they match? Ask the participant on a stage whether it matches with his personality (it works well if the participant is mature and knows him/herself.)
6. Instruct them to keep that piece of paper safe on which they have written their observations.

**Note for the facilitator:**

This activity can be done at the beginning of the programme when the participants are new to each other and repeat at the end to compare their guesses and their real personality.

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**Activity 4**

**Title:** Knowing oneself-2
<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Title: The real me</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration:</strong></td>
<td>50 minutes</td>
</tr>
<tr>
<td><strong>Method:</strong></td>
<td>Self Reporting</td>
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<tr>
<td><strong>Material:</strong></td>
<td>Worksheet, Pen</td>
</tr>
<tr>
<td><strong>Life Skills Promoted:</strong></td>
<td>Self Awareness Skill, Interpersonal skill, Critical thinking skill</td>
</tr>
</tbody>
</table>

**Process:**
1. Distribute a worksheet to each participant.
2. Instruct each participant to carry a pen and a paper.
3. Ask them to read the filler on the worksheet and respond to each filler by introspecting themselves.
Task: Complete the fillers on the given worksheet.

I am **happy** when I am with ________________________________

I am **satisfied** when I ________________________________

I consider myself **lucky** as ________________________________

I am **sad** when I ________________________________

I **hate** most ________________________________

I **love** most ________________________________

I **enjoy** doing ________________________________

I **enjoy** reading ________________________________

I **enjoy** playing ________________________________

I **like** most ________________________________

I **dislike** most ________________________________

I **trust** on ________________________________

I **respect** ________________________________relations in my life.

I am **comfortable** with ________________________________

I am very **possessive** about ________________________________

I freely **share** my secrets and needs with only ________________________________

I feel **secure** when ________________________________

I feel **fear** of ________________________________

I feel **hurt** when ________________________________

I feel **home** with ________________________________

I feel **alone** when ________________________________
I feel _________________________________ when I miss deadlines.

I get very emotional when ________________________________

I get very angry when ________________________________

I am _________________________________ with what I am.

I am very much like my ________________________________

In one word I describe myself as ________________________________

Note for the facilitator:

1. Was everyone able to succeed all the fillers?
2. Did you find it easy? Why?
3. Did you find it difficult? Why?
4. Discuss how you change your unwanted/unfavourable qualities/things to favourable one.

Activity 6
Title: Solving dilemma-1
Duration: 60 minutes
Method: Situational Discussion
Material: Situational Cards, Pen, Paper
Life Skills Promoted: Self Awareness Skill, Problem Solving, Decision Making, Critical Thinking, Effective Communication, Coping with emotions
Process:

- Form the groups of 5-7 participants and ask them to select a group leader.
- Give each group one “situation” on which they have to reflect their feelings, emotions and their expected behaviour in that specific situation. Allow 15 minutes to work for this task.
- Instruct each group to note down their responses as many as they come up with. Instruct them to come out with at least one response, but if there is disagreement within the group they
should present the differing points of view during the presentations.

- Instruct them to create dialogues and perform role-play on it.
- After 15 minutes, ask groups to make their own presentation.

**Situations**

1. It is a submission day. Due to some reasons you are unable to submit your assignments in time. How would you convince your teacher?

2. The college has organized a two day three night tour for the students. How would you persuade your father to allow you to join the tour with your friends?

3. Your examination gets delayed due to certain reasons, and your cousins are going to come tomorrow at your home to spend their vacation as their exams are over. How do you feel? What do you do? How would you manage your examinations?

4. One of your students is very good at studies but extremely irregular in attending classes. How would you handle the student to make him regular in classes?

5. Holidays are about to start. Family members have already planned Kerala trip this vacation. You come to know that during these days only your interview at GPSC is held. How do you feel? What do you do?

**Note for the facilitator:**

The following questions could be used to generate a discussion:

1. What feelings have you passed through?

2. What would you do in such situation?

3. How do you react to that situation?

4. Was your behaviour appropriate?
Activity 7

Title: Creative writer-1

Duration: Approx. 40 minutes

Method: Story making and story-telling, Role Play

Material: Picture Cards, Pen, Paper

Life Skills Promoted: Creative Thinking, Self Awareness Skill, Interpersonal Skills, Problem Solving, Effective Communication

Process:

1. Make a group of 5-7 participants. Ask them to select a group leader.
2. Give a picture card to each group.
3. Ask the individual to create one’s own story.
4. Ask them to discuss a story in a group and instruct them to select a best story from them.
5. Ask each group leader to present the story before the group.
6. After each presentation/story, generate a discussion.

The following questions could be used to generate a discussion:

- What could be the other story for that picture card?
  You may consider questions such as What is the picture all about, Who/what is where, What they are doing, What the picture conveys etc.
- What could be the other end for that story?
- Were the stories different written based on one picture? Why?
- What may be the reasons for different stories based on one picture?
- Which story did you like most? Why?
- How did you like the story? Why?
- How did you like the end? Why?
- How did you feel when you succeed to complete a story?
- How did you feel when your story was appreciated by others?
The following pictures could be used (Source: fionaseah.com, Source: artiststoryboard.wordpress.com ID 323-665-7736 by Jason):

Activity 8

Title: “Look it’s me!”

Duration: Approx. 40 minutes

Method: Introspection

Material: Chart paper, pencil-paper, colour pens and markers, paints, glue, old magazines/news papers, scrap paper, scissors/cutters,
staplers

Life Skills Promoted: Self awareness skill, Coping with emotions, Creativity

Process: Explain that each learner portrait him/her and make collage entitled “Me” by using his/her creativity.

1. Instruct them to create their collage reflecting the real self by using the materials available in learning environment.
2. Explain them the real self here mean–their thinking, their dressing style, their likes-dislikes, their work, their favourite places, their friends, their strengths and weaknesses, their goals, their dreams etc.
3. Instruct them not to write their names on the collage.
4. Ask them to complete the task in 40 minutes.
5. Instruct them to display their collage at everyone’s view as soon as they complete their collage,
6. Ask the participants to guess who made which collage.
7. At last, ask the participants explain their own collages.

The following questions could be used to generate a discussion:

1. Were you able to identify which collage is of whom?
2. Was it easy for you to identify who made which collage? Why or Why not?
3. Was it difficult for you to identify who made which collage? Why or Why not?
4. Did you find difficult to choose the materials, pictures and ideas that represent you? Why or why not?
5. How do you tag yourself? Happy or sad?
6. Which elements in the collage represent personal happiness? Why?
7. Which elements in the collage represent sadness, anger or discontent? Why?

Note for the Facilitator:
This exercise proves effective in opening up the creative sparks of the learners. It helps to reveal their real self to others while reflecting upon their lives. It is desirable that this activity may be carried out over an extended period of the programme when they become familiar with each other. Also this activity will work best and be useful if there is more than one facilitator as this activity need a extra time and support to identify the individuals who need more attention. The facilitators need to observe the learners minutely focusing on the signs of their low self-esteem, depression, over confidence and other signs that might require the need for attention.

Activity 9
Title: Solving dilemma-2
Duration: 60 minutes
Method: Situational Discussion
Material: Situational Cards, Pen, Paper
Life Skills Promoted: Self Awareness Skill, Problem Solving, Decision Making, Critical Thinking, Effective Communication, Coping with emotions
Process:
- Form the groups of 5-7 participants and ask them to select a group leader.
- Give each group one “situation” on which they have to reflect their feelings, emotions and their expected behaviour in that specific situation. Allow 15 minutes to work for this task.
- Instruct each group to note down their responses as many as they come up with. Instruct them to come out with at least one response, but if there is disagreement within the group they should present the differing points of view during the presentations.
- Instruct them that there are no right or wrong answers; they just have to share their views.
- After 15 minutes, ask groups to make their own presentation.
**Scenario 1**

Your parents are successful doctors and run a famous multispecialty hospital in a city. They want you to become a doctor and run a hospital after they leave the profession. But your interests are different. You have inclined towards art and theatre. You have won many prizes in drama competition at interschool level. They have hired a team of tutors to score excellent marks so that you would get an admission in their selected specialization (branch). Many times you have shared your feelings with them indirectly, but all are in vein. After scoring good marks at 12th examination, you apply for a medicine. At the same time opportunity offers you to enrol in Art and Drama School. You get admission letters from both the institutes. What would you do? What would you choose among these two? How will you communicate about your decision to your parents?

**Scenario 2**

You migrate village to city to earn money from your family, who live in the village. You share a room with your friend so that you can save money for the family. You are only son of your parents and have two young sisters. You work hard and do overtime too but unable to afford a place of your own. Your girlfriend insists you to find a new job and house so that you can earn more money and spend more time together otherwise she would break the relationship. You love her very much and at the same time you care for your family too. What would you do?

**Scenario 3**

You come from a very poor family from a village and join an engineering college newly. Your parents really work hard to make you study. You are amazed with this new and fascinating world where other girls wear nice and fashionable clothes; go for movies and attend late night parties. You also want to enjoy your newly found freedom.
An acquaintance offers you the chance to earn a lot of money by unfair means (workings as a bar dancer or as a drug supplier). What would you do?

Scenario 4
One of your best friends throws a birthday party in her farm house on a lonely spot. She invites a group of 10-12 college friends including you. Suddenly you find that one of them, who is a drug addict, takes out his drug injecting equipment and invites others to try the drug tablets he has. Each person has a different response/reaction to this situation and offer. What would you do?

Scenario 5
You and your friend stay as a paying guest and share a same room. Her boy-friend and other friends come many times and spend time with her in absence of you. They also have smoking and alcohol during such time. You don’t like such behaviour. What would be your feelings and reactions towards the situation? What would you do in such situation?

Note for the facilitator:
The following questions could be used to generate a discussion:
1. What was your first reaction to the situation?
2. What feelings have you passed through?
3. What would you do in such situation?
4. How do you react to that situation?
5. Was your behaviour appropriate?

Activity 10
Title: My Decision
Method: Self Reporting
Materials: Flip charts, markers
Time: 60 Min
**Life Skills Promoted:** Self awareness skill, Critical Thinking, Problem solving, Effective Communication Skill

**Process:**

1. Divide the participants into groups.
2. Explain them to introspect about the decision they made in their early life of which they might regret (It is possible to analyze the possible impact of our decision before we implement it. Ways in which we can undertake this kind of analysis will be learnt through this exercise).
3. Ask them to share it in a group.
4. Now ask each group to choose and brainstorm one decision that was made by any one member of the group.
5. Instruct each group to analyse whether the decision was ultimately correct or not? Also discuss the reasons why it was right or wrong.
6. Ask them to make a presentation about the decision they were discussing in the group.
7. Invite each group to make 20 minutes presentation.

The following questions could be used to generate a discussion:

1. What is the learning value of this exercise?
2. Did you find helpful the format for the analysis of a decision for this exercise?
3. Do you agree this format can be useful in your decision making process? Why/ why not?
4. What are the factors that make a decision “good”? Why?
5. What are the factors that make a decision “bad”? Why?
6. Can a “bad” decision be turned into a “good” decision by changing some factors? How?

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**Activity 11**

**Title:** One minute

**Method:** Debate
Materials: Flip charts (Debate topics)
Time: 45 Min
Life Skills Promoted: Critical Thinking, Problem solving, Communication Skill

Process:
1. There is no need to divide the class in groups.
2. Put each topic one by one and call each group participant to speak on the given topic.
3. Allow them to think on the topic for 5 minutes.
4. Each participant has to complete his speech in five minutes.
5. Instruct the learners to share their observations and ask their questions based on the speech.

The following topics can be asked to speak:
1. A technology I would like to speak about
2. Strategies to develop critical thinking
3. Computers have destroyed human’s ability to think
4. Advertisements should be banned
5. Educated Indians lack national commitment
6. Examinations system has killed education in India
7. Should social network sites be banned in educational campus
8. There is no reality in reality shows

Activity 12
Title: I Feel For You
Method: Dramatization (mime-acting non-verbally)
Materials: Some instruction cards for the volunteers, flip charts, markers.
Time: 50 minutes.
Life Skills Promoted: Empathy, Interpersonal skill, Effective Communication Skill

Process
1. Divide the participants into groups of 4-6 learners.
2. Explain them that most of us expect unconditional understanding, empathy, and sensitivity to our needs from our family and friends. Many of us don’t have these qualities; it requires learning and practice to develop these qualities. This exercise will help us exploring our capacities for being sensitive and empathetic to others.

3. Invite 5 volunteers and instruct them to stay far from the training area and ask each volunteer to undertake any one pantomime that they have to communicate through action and expression without using words/speaking to the other members. Make sure that the explaining of pantomime to volunteers can be done without being over heard.

Such pantomimes could be used:

- Parting with your sister after she gets married.
- Feeling hurt and insulted when the teacher insults you before your classmates.
- Being very upset and emotional because your partner forgot your birthday.
- Feeling happy and excited on dating first time with your fiancé.
- Feeling happy seeing your parents after long time as you stay in hostel.
- Unable to show anger to your child but still wanting your child to know that you are angry.
- Suffering from illness and feeling weakness but don’t want your mother to know as she gets late for her meeting with some business delegates on an important project.

4. Invite each volunteer into the room back, one by one, and ask him/her to communicate the pantomime through actions and expressions.

5. Ask the observers to guess what the volunteers are trying to communicate.
6. Give 5 minutes to each volunteer express and the others to guess.
7. Then ask the same volunteer to role play it again.
8. These could be continued till every volunteer get chance to act.
9. And finally carry over a discussion by asking their feedback and reflections.

Note for facilitator:
The following questions can be used to facilitate a discussion:

- How many of you understand all the messages expressed by the volunteers through the pantomime? How?
- Which messages did you understand clearly? Why?
- Which messages did you fail to understand clearly? Why?
- Do you understand the messages your friends and family try to tell you indirectly? Why/Why not?
- What are the qualities does one need to have to respond the people who communicate unusually?
- Is there anyone who can understand your needs and feelings without having to be told? If yes, why do you think they are able to do so?
- How do you feel when someone is sensitive and empathetic to you? Why?
- How do you feel when you are able to understand someone you really care about?
- How can you increase the sensitivity and empathy with people around you?

Activity 13
Title: Live Problems and Live solutions
Method: Discussion
Materials: Flipchart/board

Time: 60 minutes.

Life Skills Promoted: Critical Thinking, Problem solving, Effective Communication Skill

Process:

1. Arrange the group of members.
2. Begin by giving several problems/issues on the board or chart. Problems could be related to workplace or study related. Or you may allow to brainstorm the participants to list the different issues/problems they encounter in various era of their life.
3. Now ask each group of participants to allow selecting the problem and an era. They will then work out a feasible solution by making the problem alive.
4. Have the groups share their solutions.

Facilitator’s Note:
The participants will be given opportunity to pick their own problems that is known as “Autonomy of object”. In this technique, a participant has to personify the problem by putting the problem in different context (in terms of place/time). Interesting and novel solutions depend on the mental associations with that particular areas we build, while problem solving.

Activity 14

Title: I can act

Method: Role play (performance followed by discussion)

Materials: Chart

Time: Approx. 90-120 minutes.

Life Skills Promoted: Critical Thinking, Problem solving, Effective Communication Skill, Empathy

Process:

1. Divide the participants in groups. Make a group of
participants depending on the roles required in a given role play.
2. Allow participants to go through the role briefs, anticipate the roles to be played and decide the group strategy for role play performance.
3. Each of the participants will be asked to reflect on the roles that they played, and how far could they relate it to the real life situation.
4. Invite other groups to express their view points on the core issue highlighted in role plays.

Role Play 1

A JOB INTERVIEW( Source: Chauhan K., 2015: 22-24)
Two secondary school teachers are applying for a teaching position in a reputed school. One teacher is young, just out of college. The other is an older teacher with many years of experience. The principal is a person who will decide which one is suited for the position. Each teacher tries very hard to convince the principal that s/he is the best one for the job.
After the principal has made a decision the class discusses his decision. How many agree with his choice? Disagree and why?

Role Briefs
1) Mr. Or Ms. Joshi
Young, just out of college: has completed all the required education courses along with practice teaching. Is acquainted with all the new ideas in education and is eager to put ideas into practice, emphasizes her degrees and courses.
2) Mr. Or Ms. Patel
Older teacher: has taught secondary school for fifteen years. Loves children; is dedicated, emphasizes her experience.
3) The Principal- Dr. D. K.M. Mehta
Decides which teacher is best suited for the job.
Information that the principal should get from the Two Applicants.

1. **Qualifications**
   - Education: (college, refresher courses, in-service courses, specialization, achievements etc.)
   - Experience: (number of years, city, kind of school, kind of work, challenges etc.)

2. **Personal Information** (this information gives the principal a picture of the Person)
   - College graduation date
   - Health
   - Community or co-curricular activities
   - Interests
   - Marital status

3. **References**
   (The principal asks for the names of people he might contact who would be willing to assure for the teacher’s ability and character, for example. A former principal, a college professor)

4. **Salary**

Questions to help the principal determine if the applicant is suited for the job
   - Do you like teaching?
   - What would you do if your class had a number of slow learners?
   - How should children be punished for misbehavior?
   - Do you believe in screaming at the children to get their attention?
   - What are your feelings about homework?
   - Why do you think you would be good for this job?

**Role Play 2**

**Television Interview (pair work)**( Source: Chauhan K., 2015: 25)
You are to conduct an informal (‘chats shows’ type) interview in front of an audience. One person is the ‘television interviewer’; the
other person is the ‘guest’. Your interview can cover any topics you wish e.g. sports, politics, education etc.

Note: The interview should be finished within ten minutes.
The roles will be changed after finishing the one interview.

Role Play 3

A WEDDING CEREMONY

Mr. Sudhir is a scheduled caste and has risen to the top of his cadre in a large nationalized bank. He is posted in a small town. He has educated his daughter Shakuntala well and she is getting married to Arun who is from an upper-caste family and whom she had met while she was doing her post-graduation. Mr. Sudhir has invited his colleagues at the bank and Shakuntala’s teachers and friends to the wedding. Some of the guests are critical of the inter-caste marriage and will not eat food with people of a low caste.

Role Briefs

Setting: The venue of the wedding reception

Number of players – seven to eight

Mr. Sudhir: You are from a poor background but, by consistent hard work, you have risen from a low social position to that of a bank executive. You are proud of your daughter and apprehensive of her future happiness and well being in an upper-caste family. Though you have never socialized with your subordinates before, you have invited them to the wedding.

Two Bank Officials: You are critical of Sudhir and resent his superior position in office, despite his low caste. You disapprove of his daughter’s marriage to an upper-caste boy. You, generally, do not eat with people of lower castes and are traditional and orthodox in your home life: but, you feel obliged to attend the wedding reception since Sudhir is your boss.

College Teacher: You have taught Shakuntala at the university. You know Arun well. You have always supported the girl in achieving her academic goals and are proud of her achievements. You are well
aware of the social problems she will face and come to the reception
prepared to defend her from criticism and openly support her choice.

**Shakuntala:** Throughout school, you have studied on a SC reserved
seat; you got into college in a merit position, because of your
excellence in studies. You are aware of the social problems but
confident of your marriage. You are not sure whether your father
should have invited his colleagues to the wedding reception because
you know that they will not eat food at your house.

**Two Friends:** You are young, unmarried, well educated and modern.

**Arun:** You belong to a rich, upper-caste family and have a secure,
decent job. You have two unmarried younger sisters who are in high
school.

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**Role Play 4**

**Food For Thought**

The students in the hostel of a college are agitated because the mess
charges have been raised. The quality of food has been consistently
bad and they have often complained about it to the Hostel Warden.
He has assured them that he will look into it and discuss it with the
mess contractor. Quite some time has passed without any change, so
the increase in the charges is resented. There is an official meeting
called by the Principal to sort out this matter.

**Role Briefs - Number of Players-Seven to Eight**

**Setting:**

- **The College Hostel**
- **The Hostel Warden’s room**
- **The College Principal’s room**

**Students:** You are irate because the food is bad and the charges
are raised. You believe that the Warden and the Mess-in charge
are in collusion and that the money is not being properly utilized.

**Hostel warden:** You have been in charge for a couple of years
and have not done anything to improve the situation because you
are not competent to handle this aspect of your job.
**Mess Contractor:** You are a sharp businessman and a native of the small town where the college is situated. You know all the important people in the town and have contacts with influential people. You value the contract for catering in the hostel but you want to profit as much as you can. You try to blame the warden for all the shortcomings in the running of the hostel because you yourself do not live on campus and supply food from suppliers in town. This is not your only contract; you have more lucrative contracts in other establishments.

**Principal:** You are 45 years old and well liked because you are young and willing to talk to the students. You are aware of the problem and wish to resolve it without delay and without too much agitation. You believe in discussion and consensus to resolve troublesome issues.

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**Role Play 5**

**Adopting a Child**

Gopal and Lakshmi have been married for ten years and do not have any children. They consider adopting a child and consult a social worker. They encounter opposition from Gopal’s parents who live with them. There is also criticism from neighbours and older friends. Lakshmi’s parents support the idea and counsel them to seek legal and medical advice.

**Role Briefs**

**Setting:** In the small flat where the family lives

**Number of players – six to eight**

**Gopal:** You are a middle level government official, about forty years old. You are supportive of your wife and you have a very happy married relationship. You encourage your wife in her career and share many interests with her.

**Lakshmi:** You have been married to Gopal for ten years. You are a graduate, trained teacher and have been teaching in an elementary school for seven years. You are talented and share
many interests with your husband with whom you have a close
relationship. You have not been able to have any children despite
medical consultations and tests. You have discussed with Gopal
and feel you should adopt a child.

**Mr. Rao:** Gopal’s father. You are a retired businessman from a
small town. You have been brought up in a conservative semi-
rural family and believe in large families. You are skeptical about
bringing up a child of unknown parentage.

**Mrs. Rao:** Gopal’s mother. You were married very young and
come from a traditional family. You have not been educated
beyond 10th class. You are a good housewife and have brought up
four children, two sons and two daughters. Gopal is the only child
who has not provided you with grandchildren. Your younger son
and daughters have two children each. You perform poojas and
take vows praying for a child for Gopal and Lakshmi.

**Sushma Swaraj:** Social worker, you come to the house to meet
Gopal and Lakshmi and find out if the family is suitable before
placing a child with them for adoption. You discuss with them the
pros and cons and ask them questions to assess their suitability as
parents.

**Mrs. Vasundhara:** A middle-aged neighbour and friend of Mrs.
Rao. You are a gossip and critical of the younger generation. You
have your own views on adoption, which you express to Mrs.
Rao.

**Optional:** Lakshmi’s parents who take up a stance contradictory
to the Rao’s.

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**Activity 15**

**Title:** Thinking out of the box

**Duration:** 30 minutes

**Method:** Story making/telling, Role Play

**Material:** Picture Cards, Pen, Paper

**Life Skills Promoted:** Creative Thinking, Self Awareness Skill,
Interpersonal Skills, Problem Solving, Effective Communication

Process:

1. Make a group of 5-7 participants. Ask them to select a group leader.

2. Give a situational card to each group. The cards will be consisting of certain questions.

3. First ask the individual to create ones’ own response.

4. Then ask them to discuss it in a group.

5. Instruct them to select a best answer from them.

6. And lastly invite the group leader to give a presentation before the groups.

7. The following sample questions can be given on a card
   - Imagine you have just one year of your life left. What would be your priority within the time you have left?
   - Imagine you were born in the 18th century. What would life be like?
   - Give 10 uses of a paper clip other than combining papers.
   - Other than storage, in what different ways can a bottle be used?
   - If you were able to go back in time and change one thing in the past, what would it be and why?
   - If you were a non-living thing, what would you want to be? Why?
   - If you are to die tomorrow, ten things you would do today.
   - You are left stranded on an island. God grants you three things that can be kept with you when alone. What would they be?
   - If you were given the chance to exchange the roles with your best friend/partner, would you like it? Why? What changes would you bring in yourself?
- Imagine the classrooms of 23rd century.

Activity 16
Title: Spark your creativity
Duration: 20 minutes
Method: Quiz
Material: Picture Cards, Pen, Paper
Life Skills Promoted: Creative Thinking, Problem Solving, Effective Communication
Process:

1. Make a group of 5-7 participants. Ask them to select a group leader.
2. Ask each group to give their own response in a creative way.
3. Ask them to discuss it in a group.
4. Instruct them to select a best answer from them.
5. Ask each group to come with an answer and share it before the groups.

The following short quiz was developed by Anderson Consulting Worldwide to test critical thinking (Source: http://www.thelandmarkresort.com/meetings/critical-thinking-exercise)

1. How do you put a giraffe into your refrigerator?
2. How do you put an elephant into your refrigerator?
3. The Lion King is hosting an animal conference. All the animals attend except one. Which animal does not attend?
4. You have to cross the river which is used by crocodiles and you do not have a boat. How would you do that?

Prepare a script for advertise on your selected product, make an advertisement jingle. Role play how would you promote your
product in market through role-play.
i.e. For Pepsi advertisement-Yahi hai right choice baby....aha

Process:
1. Make a group of 5-7 participants. Ask them to select a group leader.
2. Ask each group to select a product of their choice, Prepare a script for advertisement on your selected product; title an advertisement jingle in a creative way.
3. Ask them to role play in a group.

Note for the facilitator:
Select such more tasks/puzzles and engage them to make them think creatively and critically.

Activity 17
Title: Analysis of Anecdotes
Time: 60 min
Method: Case study
Life Skills Promoted: Critical thinking skill, Self awareness Skill, communication Skill

Process:
1. Each participant will get a worksheet to perform individually.
2. Each one has to tell share his/her view with the group.

Task:
Given below is a list of anecdotes describing interactions between a teacher and student(s) in a classroom. Read through the anecdotes, imaging you as a student in each of the classroom environments presented. Try to imagine the teacher’s behaviour and your own feelings as a student as vividly as possible. Then refer activity following the anecdotes.

1. Mr. Prasad becomes aware that Murthy is hesitant about going to the blackboard to demonstrate a math problem, as the other
eighth graders are doing. Speaking to Murthy individually, he says- “You seem to be a little unsure of this material, perhaps you would like to see me for a moment after class so that I can help you.”

2. Mr. Desai is introducing a new song to his seventh-grade general music class by singing the song himself as he plays it on harmonium. Noticing three boys talking, he stops and orders the boys to go to the back of the room. Then he continues singing.

3. Sudhir complains, “I don’t know why we need to study this material on photosynthesis.” Ms. Makhija, his biology teacher responds, “That’s a very good question. Can anyone suggest a reason for studying photosynthesis?”

4. Mrs. Dave says to her ninth-grade English class, “I can’t tell you how disappointed I am in you today. None of you is really thinking.”

5. Mr. Patel’s tenth grade social studies class is beginning a unit on the Satyagraha movement of the 1930s, when Jaya remarks under his breath, “I don’t want to talk about any of things. Now we are a free nation.” Recognizing that Jaya and probably many other students have very strong feelings about the issue, Mr. Patel says, Let’s see a show of hands regarding whether you are for, against, or neutral about studying this unit.” He then initiates a discussion of why the students feel as they do.

6. “Why does a state have capital?” Miss Jacob asks her fourth graders. “So there’s place where the government of the state can be located,’ responds Raju, “Good thinking”, replies Miss Jacob. “Does anyone have another reason?”

7. Madhuri, a ninth grader, mutters badly audibly, “why do we have to read Julius Caesar and this other stuff that no one cares about?”Hearing Madhuri’s comment, Mrs. Roy explains with great concern, “Julius Caesar is one of the most thrilling
plays ever written about the process of Governance.

8. After introducing himself to his fifth graders on the first day, Mr. Ahuja says, “I want you to know that I am a very strict teacher, we will work hard with no fooling around and you’ll learn a lot in this class.

9. Mr. Joshi notices Shirish beginning to snooze in the last row in English class and calls in a sharp voice, “Shirish, repeat the last thing I said.”

10. Janki asks her sixth grade teacher, is it all right if I choose a book for my book review that’s not in the list you gave us?” Ms. Makhija replies, “Apparently the book in mind that you would like to read or must I spend my time helping you to find a book?”

Facilitative Questions:

1. Which behaviours describe your best teacher? Write the item numbers here.

2. Which behaviours describe your worse teacher? Write the item numbers here.

3. Where will you place yourself as a teacher on a bipolar scale (the scale represents 0 as worst and 10 as best) of worst and best teacher?

Activity 18

Title: Examining your motives for teaching

Time: 40 minutes

Method: Introspection, Brainstorming

Life Skills Promoted: Critical thinking, self awareness, ability to assess decisions

Task: Prioritize the 10 statements below that represent primary
reasons for your decisions to become teachers.

Process:
1. Give all the Participants the problem sheet on which the lists of statements were recorded.
2. Ask them to rate the statements as per their view and motives of life.
3. Facilitate the discussion by asking them to justify their answer before the group of participants.
4. At the end, discuss the roles, responsibilities and duties of a teacher.

Rank the below statements reflects why you want to become a teacher.

Statements

1. I want to extend my love for my subject by helping my students learn from me and serve for the society.
2. I perceive that the teaching is a noble and decent profession from since my childhood
3. I enjoy helping children with homework, tutoring, and coaching.
4. I made a decision to be a teacher as I love to work to work with children.
5. Since my childhood one of my teachers provided a role model and encouraged to become a teacher.
6. As a child I always enjoyed serving as a teacher on the celebration days such as teachers’ day and Guru-poornima; and being in charge of the class or class activities.
7. The schooling has been such a gratifying and enjoyable experience for me that encouraged me to become a teacher.
8. I have leadership abilities and I feel important when other people listen to me what I say and what I think.
9. I choose this profession as a second choice as I could not realize the career of my choice (e.g. a doctor, an advocate, or a pilot, etc.).
10. I chose to become a teacher as one of my parents or both is/are in teaching profession which gave exposure to teaching and playing a school.

11. I think teaching community can be a positive force in a child’s development particularly; and contribute most to the development of a society as a whole.

12. I think teachers are one of the change agents for making world better and I can contribute most for social change by becoming a teacher.

Activity 19
Title: Expressive me
Duration: 30 minutes
Method: Dramatization (Non-verbal act)
Material: Pen, Paper
Life Skills Promoted: Non-verbal communication skill, Interpersonal skill, Coping with emotions
Process:
1. Make a group of 5-7 participants. Ask them to select a group leader.
2. Give a card to each group.
3. Ask the leader to send a volunteer before the class.
4. Ask him to make non-verbal/ gestures to create the mood accordingly the word given on a card.
5. Ask the other members of the same group to identify mood.
6. Now ask each member to identify which adjective is suitable to whom.

Words/adjectives could be:
Happy, charming, charismatic, moody, Sad, Nervous, Serious, Surprised, Worried, shocked, Depressed, Tired, Angry, Bored, sleepy, disheartened, Frightened, Shamed, confused etc.
Activity 20
Title: If the problem could speak.....
Duration: 60 minutes
Method: Projecting technique
Material: Pen, Paper
Life Skills Promoted: Critical thinking Skill, Empathy, Coping with emotions, communication skill
Process:
1. Participants will be shown different pictures depicting serious issues.
2. They would be asked to interpret the situations and to reflect their views on and identify the feelings which are they going through. You may ask to write their responses in the response sheet.
3. Ask them to decide their responses and reactions in such situations.
4. The following questions could be used to generate the discussion.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Questions</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What is the picture all about?</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Who/what is where?</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>What are they doing? When you are sure of their actions.....</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>What are they doing? When you are not sure of their actions.....</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>What does the picture convey at first glance?</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Does the picture convey more than what it looks apparently?</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>If it is a serious issue/problem, what could be the probable</td>
<td></td>
</tr>
</tbody>
</table>
Activity 21
Title: Creative writer-2
Duration: 45 minutes
Method: Story writing
Material: Pen, Paper
Life Skills Promoted: Creative thinking, communication skills (writing skills), problem solving skill
Task: Read the story below. Then finish it with your own writing.
(Source: 
Process:
1. Each participant will be asked to Read the story below and then finish it with their own writing.
2. Instruct them to give an appropriate title too.
3. The best 5 stories will be then read out by the composer of the story.

**Story:**

A poor boy was selling goods from one door to another to pay for his studies. One day he found that he had only Rs. 10 left, and he was very hungry. While approaching a next house, he decided to ask for a meal. But when a young woman opened the door he only dared to ask for a glass of water.

The lady looked at him and understood that probably the boy was hungry. So she brought him a large glass of milk. He drank and asked how much he owed her. The woman replied: “You don’t owe me anything. We should never accept anything for our kindness”. The boy thanked the lady and left.

Years passed by. The boy……………………………………………
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**Note for facilitator:**

The story selected should be unusual, interesting and have some learning value to the learners.
Activity 22
Title: Solve Puzzle
Duration: 20 minutes
Method: Problem solving
Material: Pen, Paper
Life Skills Promoted: Creative thinking, problem solving
Process:
The following task will be given to participants.
1. Read aloud the following colours as fast as you can:

2. Now quickly read aloud the colours of the following words ..., not the words themselves, but the colours in which the words are shown:

<table>
<thead>
<tr>
<th>Red</th>
<th>Green</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>Orange</td>
</tr>
<tr>
<td>Black</td>
<td>Blue</td>
</tr>
<tr>
<td>Yellow</td>
<td>Gray</td>
</tr>
<tr>
<td>Red</td>
<td>Pink</td>
</tr>
</tbody>
</table>
Method: Situational Discussion, Introspection

Material: Situational Cards, Pen, Paper

Life Skills Promoted: Problem Solving, Decision Making, Critical Thinking, Coping with emotions, Coping with stress

Process:
1. Form groups of 5-7 participants and ask them to select a group leader.
2. Assign one “situation” to each group and ask them to find solutions for them.
3. Allow 20 minutes to complete this activity.
4. Instruct each team to come up with at least one solution. If they differ in their views or if they show disagreement to others, they can present all of them as there is no right or wrong solution. It may differ from person to person based on their experiences and conditions.
5. Invite the groups to make their respective presentation.

Situation 1
You are appearing for GPSC examination. You are supposed to reach the centre at 9:30. And you reached there at 9:45. When you enter in the classroom, the supervisor asks you for an identity card. Suddenly you realize that you forgot your identity card at home. He doesn’t allow you to appear for the examination. What would you do in this situation? How would you feel? How would you react? What would be the solutions you would opt?
1. What are your immediate feelings?
2. How would you react to the situation at first?
3. What may be your feelings after sometime?
4. What would you do then?
5. What would be your feelings if nothing works and you are not allowed to sit in the examination?
6. What would you do if nothing works and you are not allowed to sit in the examination?
7. Was your behaviour appropriate?

**Situation 2**
You are going station by rickshaw and while leaving rickshaw you forget your bag in the rickshaw. And you realise that your gold ornament bag is also in the bag. What are your feelings/emotions? What would you do in this situation?
1. What would be your feelings/emotions at first?
2. What would be your instant reaction to the situation?
3. What feelings do you have go through?
4. After some time, when you realize the situation, what would you do in such situation?
5. Was your behaviour appropriate?
6. Think what would be the reaction of your family members to the situation?
How do you feel while facing them?

**Situation 3**
You are preparing for UPSC since last 3 years and the day on which your IPSC exam schedules, the same day your Masters final examination is also scheduled. What would you do in this situation? Why?

**Situation 4**
Some of your colleagues always make gossiping about you, involve making conspiracy against you and create hurdles in your work. It deviates you from your work. Many times you got scolding and memos from the principal too. What would you do in such situation?
1. What would be your feelings/emotions at first?
2. What would be your instant reaction to the situation?
3. What feelings do you have go through?
4. After some time, when you realize the situation, what would you do in such situation?
5. Was your behaviour appropriate?
Activity 24
Title: Decide-right or wrong?

Duration: 50 min

Method: Brain storming, Discussion

Materials: Flip charts, markers.

Duration: 1 hour

Life Skills Promoted: Self awareness skill, Critical Thinking(analysis skills, ability to assess their decisions)

Process:

1. Ask the participants to divide into 4 groups.
2. Instruct them to reflect on their past and introspect the decision which was proved a worst decision of their life and which impacted their life badly. You really feel regret for that decision.
3. When they identify such decision, ask them to take up one decision of one of the members of a team.
4. Then instruct them to analyse and brainstorm why it is wrong, what may be the correct decisions etc.
5. Ask them to prepare a presentation (on the decision they were discussing) on the given format displayed on the handout.
6. After 15 minutes, give the groups a handout and ask them to make a presentation about the decision.
7. Invite each group to present.
8. At the end discuss on the importance of this activity. Let them explain that the kind of analysis will be learnt through this exercise.

The following questions could be used to generate a discussion:

- What is the learning value of this activity?
- Did you use the format given for the analysis of a decision? How did you find it?
- Identify the factors that help making a decision “good”? Why?
- Identify the factors that help making a decision “bad”? Why?
Can you turn your “bad” decision into a “good” decision by changing some factors? How?

Note:
The Hand-out is based on the FAST Approach:
- F- Freeze and think, what is the problem here?
- A- Alternatives, what can be the possible solutions?
- S- Solution Evaluation, Which is the best solution that is safe or fair?
- T- Try it! Try it and find out carefully that does it work?

Activity 25
Title: Yahi hai right choice.....aha
Duration: 60 min
Method: Discussion, brainstorming, Role play
Materials: Flip charts, markers, flash cards, case scenarios
Time: 1 hour
Life Skills Promoted: Self awareness skill, Critical Thinking, Problem solving, Effective Communication Skill

Process:
1. Form the groups of 6 persons.
2. Explain the FAST approach to solve the problem and ask them to follow this approach to solve the scenario given to each group.
3. Assign one scenario to each group and instruct them to work on it within their respective groups.
4. Allow 25 minutes to work.
5. Ask each group to prepare a presentation how the problem in scenario is solved using FAST approach. They can also use pens, markers, charts to make their presentation.
6. Ask them to share their presentation or to role-play or both one by one.
7. Ask the participants to raise their questions and share their
comments at the end when all the groups complete their presentations.

8. End this activity by summarizing or by giving feedback.

Note for the Facilitator
If possible, distribute handouts and material relevant to FAST approach.

FAST Approach:
- **F** - Freeze and think, what is the problem here?
- **A** - Alternatives, what can be the possible solutions?
- **S** - Solution Evaluation, Which is the best solution that is safe or fair?
- **T** - Try it! Try it and find out carefully that does it work?

Situation 1
You come to know that one of your colleagues make conspiracy against you before your boss. Number of times he takes credit about the assignments/tasks assigned both of you together, even though that was accomplished solely by your hard-work and intellect. This behaviour of him harms you and spoils your career at workplace. What will you do in this situation?

Situation 2
You are designated as examination superintendent in your college. One of members of examination committee makes blunders and leaks the paper. Evidences prove you as accused of that offence. The other members of the committee also consider responsible you of the crime. What will you do?

Situation 3
You serve as a teacher in a well-reputed school of your city. One of your male colleagues, who is a supervisor and a relative of a trustee of the school, abuse a girl (physically and verbally molestation) on a number of occasions. A girl keeps quite as she fears of bully. On one
such an instance, you see him abusing her. After you talk with that
girl and other girls, you come to know that he has done this with
many girls. But no one come forward to complain to the principal as
they feel oppressed and fear that they would be thrown out from the
school. As a lady teacher what would be your reaction and feelings?
What would you do in this situation?

**Situation 4**
You have recently joined a new school and appointed as a student
counsellor. You are friendly and yet strict and assertive at times.
There is a group of students who are rude, disorganized, and
mischievous and have wicked mentality; and who not only pollutes
the school atmosphere but often harass students and other teachers.
What will you do? How would you treat them?

**Situation 5**
You love someone and want to settle down by getting married. But
your partner doesn’t want responsibilities and asks you to engage in
live in relationships. What would you do in such situation?

**Identify a problem and make a decision**
- What is the problem in each scenario?
- For whom is the situation a problem?
- What decision should be made?
- Find out important information that may influence the
decision.
- What are the possible ways to solve a problem?
- What are the possible results of each of the solutions?
- How is each person feeling?

**Activity 26**

**Title:** I can survive

**Method:** Introspection, Brainstorming

**Life Skills promoted:** Critical thinking, Creative Thinking skill, Self awareness
| Material: Not required  
| Time: 30 Minutes  
| Task: You are invited on an excursion (tracking camp). You are given options to carry only five of the following objects. Which one would you choose? Why? Justify how those objects help you survive your life?  
| Water bottle, camera, matchstick, rope, knife, girl friend/boy friend’s photograph, mobile phone, toothpaste and tooth brush, binocular, torch, jacket, compass (magnetic needle), map, etc.  
| Process:  
| 1. Ask each student to work on the answer along with their justifications.  
| 2. Pick any student and ask their responses with justifications.  

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**Activity 27**  
**Title:** I can make a story  
**Time:** 40 minutes  
**Method:** Story-telling, Story-writing, Role-play (if you wish)  
**Material:** Scripts (only points), pen, paper  
**Task:** Below some words are given. Make use of the words and write a meaningful story.  

Neighbor’s request to Mulla Nasarrudin draft a letter for a relative-the relative lived in a town 50kms away-Mulla’s refusal for help-the neighbour was confused- pleaded to Mulla but in vein- the neighbour tried to know the reason- Mulla said, “I do not want to travel 50kms in this season”- the neighbour was perplexed- Mulla explained- “I can only read What I have written.”  
**Process:**  
- Ask the participants to divide into small groups of 6 persons each.  
- Participants will get the scripts.  
- Each participant will be asked to Read the story below and then finish it with their own writing.
• Each group will then be asked to choose the best story among those individual stories and choose the appropriate title for the story.
• Instruct each group to write a story with effective dialogues.
• Finally, the group leader will narrate the story before the class by using appropriate verbal (words) and non-verbal cues (expressions, actions, face expressions, etc).
• At the end of a session, ask the participants to select a best story and best narration among them along with the reasons why they consider it best.

**Note for the facilitator:**
You can select stories according to the level of the learners. You may also ask each group to dramatize that story before the class.

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**Activity 28**  
**Title:** Picture Reading  
**Method:** Projection Technique  
**Life Skills promoted:** Critical Thinking, empathy.  
**Material:** Placards on which different theme photos are pasted.  
**Time:** 45 Minutes  
**Task:**  
1. Look at the pictures given below which convey something.  
2. Analyse them based on your perception and understanding.  
3. Talk about them.  
**Process:**  
1. Make a group of 5-7 participants.  
2. Invite each group to come forward and select a placard for them.  
3. Instruct them to analyse critically the picture pasted on the placard.  
4. At the end invite each group leader to present their views and carry out a discussion.
Facilitate a discussion using the following questions:

- What does the situation represent?
- Who are these people, where could they be?
- Why do you think so?
- Why do you say so?
- What is it in the picture that makes you say so?
- What is the issue in each picture?
- What did you feel when you see those pictures?
- Do you think we are enough sensitive towards the issues happened around us?
- What could we do about those sensitive issues?

Activity 29
Title: My responsibility as a teacher
Method: Introspection
Material: script of a letter (Abraham Lincon’s letter to his son’s teacher or you can use any such letter)

Time: 45 Minutes

Life Skills promoted: Self awareness skill, Analytical thinking skill, Critical thinking skill, Effective communication skill

Process:
1. Divide the participants in a group of learners.
2. Instruct them to find out/bring a letter of their choice or you provide them a written letter and ask them to analyse it critically.
3. Instruct them to find out whether it satisfies all the criteria of 7 C’s. If not suggest ways to improve the same.
4. Further pose the following questions:
   - What qualities/expectations any parents or society expect from the teachers?
   - What do you think Abraham Lincon’s expectations from teacher were? List them out.
   - What do you think do you possess all those characteristics?
5. Instruct them to do the task individually and then within a group.
6. Carry out the discussion or ask each group leader to represent their reflections/views.

Abraham Lincon’s letter to his son’s teacher
(Source: Retrieved from https://www.linkedin.com)

My son starts school today. It is all going to be strange and new to him for a while and I wish you would treat him gently. It is an adventure that might take him across continents. All adventures that probably include wars, tragedy and sorrow. To live this life will require faith, love and courage.

So dear Teacher, will you please take him by his hand and teach him things he will have to know, teaching him – but gently, if you can. Teach him that for every enemy, there is a friend. He will have to
know that all men are not just, that all men are not true. But teach him also that for every scoundrel there is a hero that for every crooked politician, there is a dedicated leader.

Teach him if you can that 10 cents earned is of far more value than a dollar found. In school, teacher, it is far more honorable to fail than to cheat.

Teach him to learn how to gracefully lose, and enjoy winning when he does win.

Teach him to be gentle with people, tough with tough people. Steer him away from envy if you can and teach him the secret of quiet laughter.

Teach him if you can – how to laugh when he is sad, teach him there is no shame in tears.

Teach him there can be glory in failure and despair in success.

Teach him to scoff at cynics.

Teach him if you can the wonders of books, but also give time to ponder the extreme mystery of birds in the sky, bees in the sun and flowers on a green hill.

Teach him to have faith in his own ideas, even if everyone tells him they are wrong.

Try to give my son the strength not to follow the crowd when everyone else is doing it.

Teach him to listen to everyone, but teach him also to filters all that he hears on a screen of truth and take only the good that comes through.

Teach him to sell his talents and brains to the highest bidder but never to put a price tag on his heart and soul.

Let him have the courage to be impatient, let him have the patient to be brave.

Teach him to have sublime faith in himself, because then he will always have sublime faith in mankind, in God.

This is the order, teacher but see what best you can do. He is such a nice little boy and he is my son. -- Abraham Lincoln
Activity 30
Title: Puzzle fun
Method: brainstorming
Material: cards (on which puzzles written), markers
Time: 25 Minutes
Life Skills promoted: Problem solving skill, creative thinking skill
Process:
1. Ask them to make as many words as you can, of four or more letters from the letters shown.
2. Instruct them that every letter must contain the central letter.
3. Instruct them the words they make should be related to teaching and education. It’s really a challenge for them.

Activity 31
Title: My dream Collage
Method: Brainstorming, Introspection
Material: Chart paper, pencil-pen, markers, pictures from magazines/newspapers, scrap paper, scissors, glue
Time: 40 Minutes
Life Skills promoted: Self awareness, Critical thinking, creative thinking skill
Process:
1. Explain that each learner portrait and make collage entitled “My dream collage- means the dreams you fulfil in 10 years from now” by using his/her creativity by using the materials available in learning environment.
2. The collage should reflect your house, your job, your life-style, the future endeavours etc.
3. Ask them to complete the task in 30 minutes.
4. Give your collage a title of your choice.
5. Instruct them to display their collage at everyone’s view as soon as they complete their collage,
6. At last, ask the participants explain their own collages.

The following questions could be used to generate a discussion:
1. Were you able to identify your goals where do you see yourself in 10 years?
2. Do you find it difficult to get ideas that represent you? Why or why not?

Activity 32  
**Title:** Brain teasers  
**Time:** 20 minutes  
**Method:** Brainstorming  
**Material:** Charts (on which puzzles written)  
**Life Skills promoted:** Problem solving skill, Critical thinking skill  

**Process:**
1. Give them a puzzle sheet and ask them to solve the problems individually.
2. Ask them to solve the puzzles before class one by one.

**Task:**
1. Study the following puzzle carefully and create such magic squares trying other numbers.

The diagram bellow was taken from a famous Chinese book over 3000 years old. Can you figure out what the organization represents? In other words, what do the figures represent and what is special about it?
It was called a magic square. The numbers of the square are represented by the objects and the number of balls they contain:

8  3  4
1  5  9
6  7  2

2. Below is an arithmetic problem using matchsticks to form Roman numerals and operators (+, -, and =). The equation is incorrect. See if you can solve it by envisioning a solution in which only one matchstick is moved to create a correct equation. You can only move one matchstick once (but not remove it).

3. Nine dots are arranged in a three by three square. Connect each of the nine dots using only four straight lines and without lifting your pen from the paper.

Note for the facilitator:
You can use such riddles and puzzles which involve participants to thinking process.

Activity 33
Title: Truth, dare and promise
Skills Promoted: Interpersonal skill, Effective Communication skill,
**Time:** 60 minutes

**Materials:** a card for each participant

**Task:** Act out as per your choice truth, dare and promise.

**Process:**

1. Form a group of participants who know each other well and have an informal relationship.

2. Each participant should write one/two sentences on a card for each of the categories below.

3. Before using sentences in oral work it would be wise to check that each ‘truth’, ‘Dare’ or ‘promise’ is acceptable to you.

4. Place all cards before the group.

5. Each participant takes it in turns to pick up a card.

6. Then that participant has to decide the category (truth, dare, promise) to which he/she would like to go for.

7. Then he/she must do what the card demands.

8. The facilitator should direct and monitor the activity.

**Note for the facilitator:**

Make sure that the demands should be related to challenges of teachers and related to the life skills such as:

- Asking for role-playing of your favourite teacher, leader, role-model etc.;
- Asking to share/narrate his self creation-story, poem, song etc.;
- Asking to challenge the puzzles, riddles etc.;
- Asking to act on the situations given by the facilitator;
- Asking to reflect on his/her weaknesses, limitations, bad qualities and take promise to overcome it;
- Asking to answer situations which require critical thinking skills;
- Asking about five novel uses of things you find around except its regular use.
- Ask the player to one qualities which you want to change it.
• Ask the player if you would get chance to change your gender, who you would like to be.

Activity 34
Title: My reaction
Time: 40 Minutes
Method: Situational discussion
Material: Situation Briefs (on roll-chart)
Life Skills promoted: Critical thinking, self awareness skills, empathy, coping with emotions

Process:
1. Divide the participants into small groups.
2. Ask the participants to write their feelings and behaviours alone.
3. Discuss their feelings and emotions together with a group.
4. Ask them to share their feelings before the class.

Situations
• Meet your friend accidentally after a number of years
• All of a sudden you reveal your mother having a blood cancer
• Your sister meets an accident and you have to deal hospital formalities as your parents are out of station
• Your best friend and your cousin going to get marry on the same date and you confuse whom to give preference
• You hope to get first class in board examinations and you get failed when the result declared
• You reveal your spouse is having HIV/AIDS
• Your partner cheat on you as he/she have extramarital relationship

The following questions could be asked to generate discussion:
1. What would be your immediate feelings/emotions?
2. How would you react to the situation at first?
3. What may be your feelings after sometime when you calm down?
4. What would be your later reaction? How do you behave?
5. Was your behaviour appropriate? Why?

Activity 35
Title: Feel for You-2
Method: Situational discussion
Material: Situation Briefs (on roll-chart)
Time: 50-60 Minutes
Life Skills promoted: Critical thinking, self awareness skills, empathy, coping with emotions

Process:
1. Divide the participants into small groups.
2. Ask the participants to discuss the following questions and note their responses on the paper:
   - What is empathy?
   - Why one need to acquire ability to empathize?
   - Is it possible to enhance empathy in children? How? Through which techniques?
   - Can you give some examples wherein a teacher can exhibit empathy during teaching or in day-to-day life situations?
3. Invite the groups for discussion in the light of above mentioned questions.
4. Ask them to read aloud their responses. Let the participants share their experiences, and how they felt putting themselves in another person’s shoes.
5. Further the following situations can be given to participants.
6. At the end carry out a discussion in the light questions
Situation 1

Today is your last paper of annual examination. You are running to the exam centre by your vehicle. You are already late. You are running shortage of time. On the way you see an accident. You see an aged uncle and auntie injured badly. Nobody comes to help them. What will you do in this situation?

1. What would be your feelings at first?
2. What would be your first reaction to the situation?
3. How do you think in such situation?
4. What would you do? Why?
5. Think what if it would be your father and mother instead the uncle and auntie?
6. Think what if somebody ignores this incidence and leave your parents without treating?

Situation 2

You, with your friends, go for a walk on one night around 10 O’clock. On the way you find a drunken man and his wife quarrelling and the man badly hits his wife. The wife is carrying her 2 years young kid. The wife is terrified and asking for the help to the people around you. She was badly injured and genuinely need a help. Her husband left her alone with a child. What would you do? Each one of you has a different response/reaction to this situation and offer.

1. What would be your feelings?
2. What would be your instant reaction to the situation?
3. What would be different reactions each one of you has?
4. What if your friends refuse to help her?
5. What would be your behaviour in this situation? Why?

Situation 3

One of your friends is 20 years old, but her parents treat her still as a child. They advise her on every single matter whether such as who
would be her friends, what type of cloths she should wear, what subjects she should opt for, whom to meet and what to do on every weekends etc. Due to these reasons, you have seen lost her self-confidence, lost her motivation towards life and tried to commit suicide. You really feel for her and want to help her and do something for her. What will you do?
1. What would be your feelings?
2. What would be your behaviour in this situation?
3. Would you go to her parents and make them realize about the effects of their behaviour to her daughter?
4. What would you do if they don’t understand?
5. How would you help her? Why?

**Situation 4**

You notice a north Indian boy, recently migrated, and admitted in your school. His efforts to mingle with the classmates are in vain. He wants to play with a group of children and share a lunchbox with them. But the boys refused to join him. Nobody responds to him well, on the contrary they tease him and make fun of him. As a result, the boy cannot even concentrate in studies. How do you feel in such conditions? How would you help him? Illustrate your behaviour and feelings.
1. What would be your feelings?
2. What would be your behaviour in this situation?
3. How would you treat the boy and the other students?
4. What would you do if they don’t understand?
5. How would you help her? Why?

**Situation 5**

Imagine that one of your classmates comes from very poor family (economical status); her mother is a single parent and left by her father. She is not in condition to pay her fees. What would you do?
How would you help?
1. What would be your feelings?
2. What would be your instant reaction to the situation?
3. What would be your behaviour in this situation? Why?
4. How would you help her?

Activity 36
Title: how I decide
Method: Situational discussion
Material: Situation Briefs (on roll-chart)
Time: 50 Minutes
Life Skills promoted: Critical thinking, self awareness skills, empathy, coping with emotions
Process:
1. Divide the participants into small groups.
2. Assign each group one situation or they can choose for them from roll-chart.
3. Ask them to decide their responses. Let the participants share how they feel, their reactions and their decisions.
4. At the end carry out a discussion in the light questions suggested.
5. Sum up the discussion.

The following Situations could be used:
1. My parents want me to be the best in everything I do. If I don’t perform according to their expectations they ridicule me and scold me.
2. I am not so good as my brother at studies. I want to take up courses in fine arts. My parents think I am hopeless and good for nothing.
3. I come from very poor family and have to work part time in shop; and therefore have to study as external student. I feel exhausted and tired. One of my friends suggests me to try smoking and drinking to come out from stress and depression.
4. My friends often take drugs and alcohol. They also probe me to have it and enjoy a life. You fear that if you don’t do as they say, they break relations with you.
Activity 37
Title: How I react
Time: 40 Minutes
Method: Situational discussion
Material: Situation Briefs (on roll-chart)
Life Skills promoted: coping with stress, coping with emotions

Process:
1. Divide the participants into small groups.
2. Ask the participants to write their feelings and behaviours alone.
3. Discuss their feelings and emotions together with a group.
4. Ask them to share their feelings before the class.

How would you react in following situation?
When I have to face the audience……………………………………
When I do top and get gold medal……………………………………
When I see someone in pain……………………………………
When I see a child engage in labour……………………………………
Whenever I have to appear in the exam………………………………
When I have to face an interview……………………………………
A best friend of mine forgets what s/he wants to say during Elocution competition in Youth Festival………………………………
When I give my best performance on stage in drama and won an award ………………………………………………………………………
When my younger brother/sister gets failed in 10 standard exam ………………………………………………………………………
When I get scolded by my favourite teacher for a mistake which I never did……………………………………………………………………

The following questions could be asked to generate discussion:
1. What would be your immediate feelings/emotions?
2. How would you react to the situation at first?
3. What may be your feelings after sometime when you calm down?
4. What would be your later reaction? How do you behave?
5. Was your behaviour appropriate? Why?

Activity 38
Title: Feel for You-2
Method: Audio-visual
Material: Video clippings, LCD projector
Time: 60 Minutes
Life Skills promoted: Critical thinking, self awareness skills, empathy, coping with emotions

Process:
1. Ask the participants to divide into small groups of 6 persons each.
2. Participants will then be shown the video clips and will be asked to note down their reflections, feelings, emotions etc. individually.
3. Facilitative questions could be posed before the class like
4. Each group will discuss to answer these questions.
5. Then the group will share their views and finally facilitator will lead the discussion.

Task: watch the video/ clipping carefully.

The following questions can be used to generate a discussion:
1. What does the video/clipping focus on?
2. What is the key issue in the video?
3. What are the problems/issues reflect in the video/clipping?
4. Who is responsible for the situations?
5. What do you feel about the situations?
6. What could be the probable solutions for that issue?
7. What is the central theme and message in the video?
8. “We are losing our empathy day-by-day towards the serious happenings around us.”- Ask their opinions on the statement. Yes/No? Why?
9. Why is that happening?
10. How can we make aware them about empathy and develop empathy among our children as a teacher?

4.3.10 Life Skills Theoretical Orientation (Exposed to Control Group)

Table 4.3 Outline of Life Skills Theoretical Orientation

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Content</th>
<th>Sub content</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pre-test</td>
<td></td>
<td>1 hour</td>
</tr>
<tr>
<td>5.</td>
<td>Effective Communication</td>
<td>1. Meaning 2. Definitions</td>
<td>2.5 Hour</td>
</tr>
<tr>
<td>Skill</td>
<td>3. Communication Skill as a combination of other skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Components of Communication Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Explanation of Communication Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Characteristics of an Effective Communicator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Methods and techniques to enhance effective communication skills</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 6. Problem-solving Skill          | 1. Meaning                                             |
|                                   | 2. Definitions                                         |
|                                   | 4. Characteristics of a good problem solver             |
|                                   | 5. Methods and techniques to enhance effective problem solving skills |

| 7. Decision making skill          | 1. Meaning                                             |
|                                   | 2. Importance                                          |
|                                   | 2. Process-Stages of Decision Making                    |
|                                   | 3. Characteristics of a good decision-maker             |
|                                   | 4. Methods and techniques to improve Decision Making    |

| 8. Creative Thinking Skill        | 1. Meaning                                             |
|                                   | 2. Definitions                                         |
|                                   | 3. Importance of Creativity                            |
|                                   | 4. brainstorming as a technique to develop creative thinking skill |
|                                   | 5. The rules of brainstorming and Ways to run brainstorming sessions |
|                                   | 6. Characteristics of a good creative thinker          |

| 9. Critical Thinking Skill        | 1. Meaning                                             |
|                                   | 2. Definitions                                         |
|                                   | 3. Importance of Critical thinking skill                |
|                                   | 4. Characteristics of a good critical thinker           |
|                                   | 5. Ways and strategies to develop critical thinking skill |

| 10. Skill of Coping with emotions | 1. Meaning                                             |
|                                   | 2. Basic emotions                                      |
|                                   | 3. Importance                                          |
|                                   | 4. Mechanisms to cope with emotions                     |

|          | 2 hours                                             |
|          | 2.5 hours                                            |
|          | 2 hours                                              |
|          | 2 hour                                               |
|          | 2 hour                                               |
|          | 1.5 hour                                             |
|   | Skill of coping with stress | 1. Meaning  
|   |                           | 2. Types of stress  
|   |                           | 3. Signs of stress  
|   |                           | 4. Mechanisms to reduce stress  
| 11. | 1.5 hours  
|   | Empathy | 1. Meaning  
|   |                           | 2. definitions  
|   |                           | 3. Basic components  
|   |                           | 4. Characteristics of an empathetic person  
| 12. | 1.5 hours  
|   | Post test |  
| 13. | 1 hour  
|   | Situational test |  
| 14. | 1.5 hour  
|   | Total |  
|   | 30 hours  

4.4 Conclusion:
The current chapter focused on the aims of the programme, learning outcomes of the programme, methodology adopted for designing of the programme, components of the programme and index of the programme along with the requisite time. Then it followed by details of introductory session, brainstorming sessions and actual sessions to practise life skills in controlled environment with detailing of skills focussed, things required and procedure to be followed. At the end Life Skills Theoretical Orientation for control group was outlined.
CHAPTER V
DATA ANALYSIS AND DATA INTERPRETATION

5.0 Introduction
5.1 Methods of data analysis
5.2 Data Analysis and Interpretation
  5.2.1 Analysis of demographic details gathered from the information schedule
  5.2.2 Analysis and interpretation of Hypotheses Testing
5.3 Additional Imperative Observations of the study
  5.3.1 Analysis of pre-service teachers’ life skills scores before and after the intervention ‘LSP’
  5.3.2 Effectiveness of Life Skills Programme by comparing average of pre-test scores and average of post life skills scores corresponding to each life skill of Experimental group of main study
5.4 Data Analysis and Interpretation of Programme Evaluation Questionnaire
5.5 Data Analysis and Interpretation of Focused Group Discussion
5.6 Data Analysis and Interpretation of Field Notes
5.7 Discussion of results
5.8 Conclusion
CHAPTER V
DATA ANALYSIS AND DATA INTERPRETATION

5.0 Introduction
Sheligar and Shohamy (1989:201) state that “data analysis refers to sifting, organizing, summarizing and synthesizing the data so as to arrive at the results and conclusions of the research”. The main purpose of this chapter is to provide concise, concrete and correct data and analyze them through suitable and appropriate techniques. An analysis helps to reduce the data to its compact and concise form on which appropriate statistical techniques can be applied in the light of testing the hypotheses of the research study. Wilcoxon Signed Rank test and Mann Whitney U test were applied to test the hypotheses and arrive at valid conclusions. Then the conclusions/findings have been presented in an authentic manner by the researcher and it was followed by the sound discussion on the basis of the findings derived from the analysis and interpretation of data.

5.1 Methods of data analysis
In classroom research, it would be desirable to assign random subjects to both experimental and control groups. In accordance with the pre requisite of the study, quasi experiment design namely Pre-test Post-test Non-equivalent Experimental Control Group design was adopted. The Life Skills Scale (used in the pre-phase and post-phase of the intervention) was a Likert type five point scale and hence the data measured in the form of pre life skills and post life skills was ordinal. The Life Skills Scale developed under present study was aimed as the effect of Life Skills Programme gets its reality in terms of attitude and actions. The piloting of Life Skills Scale was done to estimate its validity and reliability. As the groups are purposive, and not randomized, and data obtained were ordinal; parametric tests cannot be applied to the data. Non-parametric tests are generally designed for the analysis of nominal or ordinal level data. Non-parametric tests such as Mann-whitney test (U) and Kruskal Wallis Test (H) were rightly applicable for the study. The research objectives for the study are restated in the form of the hypotheses. Quantitative data collected by means of the Life Skills Scale and Situational Test are
examined through appropriate statistical procedures. SPSS version 10 was used for data entry and analysis. The Mann Whitney U test was used for two independent sample cases and Kruskal-Wallis Test (H) was used for two paired measures. This test presents better results when the dependent variable is measured on an ordinal scale (John et al, 1981).

5.2 Analysis and interpretation of data the study

5.2.1 Analysis of demographic details gathered from the information schedule

There is a specific reason for analysing the demographic details of the pre-service teachers of the research. The purpose of the study was to evaluate the effectiveness of the programme with respect to gender, area, discipline and educational qualification of pre-service teachers. The study used purposive sample and the subjects in the groups were not randomized. This data is required for further analysis and for testing the hypothesis of the present study e.g. Whether demographic characteristics of the pre-service teachers affect significantly on life skills scores of pre-service teachers or not?

Table 5.1 Demographic details of the sample for the main study

<table>
<thead>
<tr>
<th>Characteristic/Variable</th>
<th>No. of Participants for the Main Study</th>
<th>No. of Participants for Experimental Group (N=41)</th>
<th>No. of Participants for Control Group (N=46)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: Male</td>
<td>11</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Area: Rural</td>
<td>23</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Discipline: Arts</td>
<td>25</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Commerce</td>
<td>04</td>
<td>11</td>
</tr>
<tr>
<td>Degree: Graduation</td>
<td>19</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Post-graduation</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>
Table 5.1 represents demographic details about the respondents/subjects (i.e. pre-service teachers) with respect to variables region they come from, discipline they opted at higher-secondary school level, and degree they hold among control and experimental group; which was evident through information schedule.

**Graph 5.1 the descriptive analysis for demographic information for experimental group of main study**

Graph 5.1 indicates the descriptive analysis for demographic information indicated that out of 41 respondents, 73.17% were female and 26.82 were male; 44.44% of respondents were from rural area and 55.56% from urban area; 60.98 % respondents having Arts discipline, 29.27% having science...
discipline, and 9.76% commerce discipline; and 46.34% Graduation degree holders and 53.65% PG degree holders.

Graph 5.2 the descriptive analysis for demographic information for control group of main study

Graph 5.2 indicates the descriptive analysis for demographic information of control group, showing out of 46 respondents 68.09% were female and 31.91% male. Out of 46 respondents, 34.78% respondents from rural area and 65.22% from urban area; 48% from Arts discipline, 32.61% from science discipline, and 23.91% from commerce discipline distributed over total respondents, whereas 43.48% were Graduation degree holders and 56.52% PG degree holders. This demographic analysis helped the researcher to carry out for hypothesis testing.
5.2.2 Hypotheses testing for the study

The study aimed at checking the effect of a Life Skills Programme to enhance life skills of the pre service teachers by considering pre life skills scores, post life skills scores and situational scores. The following null hypothesis guided the research study.

H$_{01}$ There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not.

Table 5.2 Results of the Mann Whitney U Test on the Pre situational scores of the pre-service teachers in the Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>55.21</td>
<td>2263.50</td>
<td>483.50</td>
<td>-3.91</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>46</td>
<td>34.01</td>
<td>1564.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 Results of the Mann Whitney U Test on the Post situational scores of the pre-service teachers in the Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>63.61</td>
<td>2608.00</td>
<td>139.00</td>
<td>-6.84</td>
<td>0.00</td>
</tr>
<tr>
<td>Control</td>
<td>46</td>
<td>26.52</td>
<td>1220.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the findings in table 5.1 reveals that the results of Mann Whitney U test, applied to compare the pre situational scores of the pre-service teachers in the experimental and control groups, revealed a statistical significant difference (Z=-3.911, p=0.00<0.01). The mean rank of the pre situational scores of the pre-service teachers of experimental group was 55.21, while the pre-service teachers in the control group had a mean rank of 34.01. The differences of mean ranks of the groups’ pre situational scores indicate before the experiment, the experimental and control groups had not equal life skills levels.
An examination of the findings in table 5.12 shows that the results of Mann Whitney U test, applied to compare the post situational scores of the pre-service teachers in the experimental and control groups, revealed a statistically significant difference ($Z=-6.840$, $p=.000<.01$). The mean rank of the post situational scores of the experimental group teachers was 63.61, while the students in the control group had a post situational score rank average of 26.52. As a result, there was significant difference between the groups’ situational scores before the experiment; and also after the experiment. An examination of the mean ranks of their post situational scores demonstrates that the pre-service teachers in the experimental group had higher life skills levels than those in the control group.

Therefore it can be concluded that the Life Skills Programme was effective for pre-service teachers who attended the programme than who did not.

$H_{02}$ There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to gender.

Table 5.4 Results of the Mann Whitney U Test on the Pre situational scores of the pre-service teachers of the Experimental and Control Groups with respect to gender

<table>
<thead>
<tr>
<th>Grouping Variable: Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>61</td>
<td>52.47</td>
<td>3200.50</td>
<td>276.500</td>
<td>-4.792</td>
<td>0.00</td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>24.13</td>
<td>627.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.5 Results of the Mann Whitney U Test on the Post situational scores of the pre-service teachers of the Experimental and Control Groups with respect to gender

<table>
<thead>
<tr>
<th>Grouping Variable: Area</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An examination of the findings in Table 5.13 reveals that the results of Mann Whitney U test, applied to compare the pre situational scores of the pre-service teachers with respect to gender in the experimental and control groups, showed a statistical difference (Z=-4.792, p=.00<.01). The mean rank of the pre life skills scores of the female pre-service teachers was 52.47, while the male pre-service teachers had a mean pre-test rank of 24.13, which indicate that before the experiment, the female pre-service teachers had higher situational scores than the male pre-service teachers.

An examination of the findings in Table 6.14 shows that the results of Mann Whitney U test, applied to compare the post situational scores of the pre-service teachers with respect to gender in the experimental and control groups, revealed a statistically significant difference (Z=-2.312, p=.025<05). The mean rank of the female pre-service teachers was 48.08, while the female pre-service teachers had a mean rank of 34.42. As a result, there was significant difference between the female pre-service teachers and male pre-service teachers’ situational scores after the experiment.

Therefore it can be concluded that the Life Skills Programme was effective for female pre-service teachers than the male pre-service teachers.

**H03** There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to area.

**Table 5.6 Results of the Mann Whitney U Test on the Pre situational scores of the pre-service teachers of the Experimental and Control Groups with respect to area**

<table>
<thead>
<tr>
<th>Grouping Variable: Area</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>41</td>
<td>39</td>
<td>48.28</td>
<td>769.000</td>
<td>-1.426</td>
<td>.154</td>
</tr>
<tr>
<td>Urban</td>
<td>46</td>
<td>48</td>
<td>40.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.7 Results of the Mann Whitney U Test on the Post situational scores of the pre-service teachers of the Experimental and Control Groups with respect to area

<table>
<thead>
<tr>
<th>Grouping Variable: Area</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>39</td>
<td>50.71</td>
<td>1967.00</td>
<td>674.500</td>
<td>-2.235</td>
<td>.025</td>
</tr>
<tr>
<td>Urban</td>
<td>48</td>
<td>38.55</td>
<td>1871.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the findings in Table 5.15 reveals that the results of Mann Whitney U test, applied to compare the pre situational scores of the pre-service teachers with respect to area in the experimental and control groups, did not show any statistical difference ($Z=-1.426$, $p=.154>.05$). The mean rank of the pre situational scores of the rural pre-service teachers was 48.28, while the urban pre-service teachers had a mean rank of 40.52. The close mean ranks of the groups’ pre situational scores indicate that before the experiment, the rural pre-service teachers and urban pre-service teachers had somewhat equal situational scores.

An examination of the findings in Table 5.16 shows that the results of Mann Whitney U test, applied to compare the post situational scores of the pre-service teachers with respect to area in the experimental and control groups, revealed a statistically significant difference ($Z=-2.23$, $p=.025<.05$). The mean rank of the rural pre-service teachers was 50.71, while the urban pre-service teachers had a mean rank of 38.55. As a result, there was significant difference between the rural and urban pre-service teachers’ situational test scores before the experiment; which indicates that the rural pre-service teachers had higher life skills levels than urban pre-service teachers.

Therefore it can be concluded that the Life Skills Programme was found more effective for rural pre-service teachers than the urban pre-service teachers.

$H_{04}$ There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.
Table 5.8 Results of the Mann Whitney U Test on the Pre situational scores of the pre-service teachers of the Experimental and Control Groups with respect to discipline

<table>
<thead>
<tr>
<th>Grouping variable: Discipline</th>
<th>N</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Asymp. Sig.(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>45</td>
<td>45.97</td>
<td>1.159</td>
<td>2</td>
<td>.560</td>
</tr>
<tr>
<td>Science</td>
<td>27</td>
<td>44.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commerce</td>
<td>15</td>
<td>37.87</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.9 Results of the Mann Whitney U Test on the Pre situational scores of the pre-service teachers of the experiment of the Experimental and Control Groups with respect to discipline

<table>
<thead>
<tr>
<th>Grouping Variable: Discipline</th>
<th>N</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Asymp. Sig.(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>45</td>
<td>44.19</td>
<td>0.506</td>
<td>2</td>
<td>.777</td>
</tr>
<tr>
<td>Commerce</td>
<td>27</td>
<td>45.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>15</td>
<td>40.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Kruskal-Wallis H Test was conducted to determine if the situational test scores was different for three groups that pre-service teachers having Arts discipline (n=45), pre-service teachers having Science discipline (n=27), and pre-service teachers having Commerce discipline (n=15). A Kruskal-Wallis H Test on post life skills scores showed there was not a significant difference between the groups, $\chi^2(2) = 1.159$, $P = .560 > 0.05$ (See in table 5.17).

A Kruskal-Wallis H Test on post situational test scores showed there was not a significant difference between the groups, $\chi^2(2) = 0.506$, $P = .777$. However, the mean rank difference analysis of three groups showed that the difference in mean ranks between pre-service teachers having science and commerce discipline is larger and hence pre-service teachers having science discipline had greater life skills levels than the pre-service teachers having commerce discipline. Also the difference in mean ranks between pre-service teachers having arts and commerce is larger and hence pre-service teachers...
having arts discipline had greater life skills than the pre-service teachers having commerce discipline (Refer Table 5.18)

H_{05} There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

Table 5.10 Results of the Mann Whitney U Test on the Pre situational test scores of the pre-service teachers of the Experimental and Control

Groups with respect to educational qualification (degree)

<table>
<thead>
<tr>
<th>Grouping Variable: Degree</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG</td>
<td>39</td>
<td>45.76</td>
<td>1784.50</td>
<td>867.500</td>
<td>-.585</td>
<td>.559</td>
</tr>
<tr>
<td>PG</td>
<td>48</td>
<td>42.57</td>
<td>2043.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.11 Results of the Mann Whitney U Test on the Post situational test scores of the pre-service teachers of the Experimental and Control

Groups with respect to educational qualification (degree)

<table>
<thead>
<tr>
<th>Grouping Variable: Degree</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG</td>
<td>39</td>
<td>44.13</td>
<td>1721.00</td>
<td>931.00</td>
<td>-.043</td>
<td>.966</td>
</tr>
<tr>
<td>PG</td>
<td>48</td>
<td>43.90</td>
<td>2107.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the findings in Table 5.20 reveals that the results of Mann Whitney U test, applied to compare the pre situational test scores of the pre-service teachers with respect to degree in the experimental and control groups, did not show any statistical difference ($Z=-.585$, $p=.559>.05$). The mean rank of the post situational scores of the pre-service teachers with UG degree was 45.56, while the pre-service teachers with PG degree had a mean pre-test rank of 42.57. The close mean rank of the groups’ post life skills scores for life skills levels indicate that before the experiment, the pre-service teachers having UG degree and pre-service teachers having PG had somewhat equal life skills levels.
An examination of the findings in Table 5.20 shows that the results of Mann Whitney U test, applied to compare the post situational scores of the pre-service teachers with respect to degree in the experimental and control groups, revealed a statistically significant difference (Z=-.043, p=.966>05). The mean rank of the pre-service teachers having UG degree was 44.13, while the pre-service teachers having PG degree had a mean rank of 43.90. The close mean rank of the groups’ post life skills scores for life skills levels indicate that after the experiment also, the pre-service teachers having UG degree and pre-service teachers having PG had equal life skills levels.

Therefore it can be concluded that there was not a significant difference in situational scores between the pre-service teachers having UG degree and PG degree or the Life Skills Programme had shown equal and similar effect on pre-service teachers having UG degree and PG degree.

H₀₆ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who attended the programme and who did not.

Table 5.12 Results of the Mann Whitney U Test on the Pre life skills Levels of the pre-service teachers in the Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>58.15</td>
<td>2384.00</td>
<td>363.00</td>
<td>-4.933</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>46</td>
<td>31.39</td>
<td>1444.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.13 Results of the Mann Whitney U Test on the Post life skills Levels of the pre-service teachers in the Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>66.98</td>
<td>2746.00</td>
<td>1.000</td>
<td>-8.011</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>46</td>
<td>23.52</td>
<td>1082.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An examination of the findings in table 5.1 reveals that the results of Mann Whitney U test, applied to compare the pre life skills scores of the pre-service teachers in the experimental and control groups, revealed a statistical significant difference ($Z=4.933$, $p=0.00 < 0.01$). The mean rank of the pre life skills scores of the pre-service teachers of experimental group was 58.15, while the pre-service teachers in the control group had a mean rank of 31.39. The difference of mean rank of the groups’ pre life skills scores indicate before the experiment, the experimental and control groups had not equal life skills levels.

An examination of the findings in table 5.2 shows that the results of Mann Whitney U test, applied to compare the post life skills scores of the pre-service teachers in the experimental and control groups, revealed a statistically significant difference ($Z=-8.011$, $p=.000 < .01$). The mean rank of the post life skills scores of the experimental group teachers was 66.98, while the students in the control group had a post life skills score rank average of 23.52. As a result, there was significant difference between the groups’ life skills levels before the experiment; and also after the experiment. An examination of the mean rank of their post life skills scores demonstrates that the pre-service teachers in the experimental group had higher life skills levels than those in the control group.

Therefore it can be concluded that the Life Skills Programme was effective for pre-service teachers who attended the programme than who did not.

$H_0$ There will be no significant difference in pre life skills scores and post life skills scores of pre-service teachers between who participated in the programme and who did not, with respect to gender.

Table 5.14 Results of the Mann Whitney U Test on the Pre life skills Levels of the pre-service teachers of the Experimental and Control Groups with respect to gender

<table>
<thead>
<tr>
<th>Grouping Variable: Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grouping Variable: Area</td>
<td>N</td>
<td>Mean Rank</td>
<td>Sum of Ranks</td>
<td>Mann Whitney U</td>
<td>Z</td>
<td>P</td>
</tr>
<tr>
<td>------------------------</td>
<td>----</td>
<td>-----------</td>
<td>--------------</td>
<td>----------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>45.23</td>
<td>2759.00</td>
<td>718.00</td>
<td>.696</td>
<td>.487</td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>41.12</td>
<td>1069.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.15 Results of the Mann Whitney U Test on the Post life skills scores of the pre-service teachers of the Experimental and Control Groups with respect to gender

An examination of the findings in Table 5.5 reveals that the results of Mann Whitney U test, applied to compare the pre life skills scores of the pre-service teachers with respect to gender in the experimental and control groups, did not show any statistical difference (Z=−.696, p= .487>.05). The mean rank of the pre life skills scores of the female pre-service teachers was 45.23, while the male pre-service teachers had a mean pre-test rank of 41.12. The close mean rank of the groups’ pre life skills scores indicate that before the experiment, the female pre-service teachers and male pre-service teachers had somewhat equal life skills levels.

An examination of the findings in Table 6.4 shows that the results of Mann Whitney U test, applied to compare the post life skills scores of the pre-service teachers with respect to gender in the experimental and control groups, revealed a statistically significant difference (Z=−.955, p= .339>.05). The mean rank of the female pre-service teachers was 45.69, while the female pre-service teachers had a mean rank of 40.04. As a result, there was no significant difference between the female and male pre-service teachers’ life skills levels before the experiment.

Therefore it can be concluded that the Life Skills Programme had equal and similar effect for female pre-service teachers and the male pre-service teachers.
H_{08} There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area.

Table 5.16 Results of the Mann Whitney U Test on the Pre life skills Levels of the pre-service teachers of the Experimental and Control Groups with respect to area

<table>
<thead>
<tr>
<th>Grouping Variable: Area</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>41</td>
<td>39</td>
<td>47.29</td>
<td>807.500</td>
<td>-1.097</td>
<td>.273</td>
</tr>
<tr>
<td>Urban</td>
<td>46</td>
<td>48</td>
<td>41.32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the findings in Table 5.6 reveals that the results of Mann Whitney U test, applied to compare the pre life skills scores of the pre-service teachers with respect to area in the experimental and control groups, did not show any statistical difference (Z=-1.097, p=.273>.05). The mean rank of the pre life skills scores of the rural pre-service teachers was 47.29, while the urban pre-service teachers had a mean pre-test rank of 41.32. The close mean rank of the groups’ pre life skills scores for life skills levels indicate that before the experiment, the rural pre-service teachers and urban pre-service teachers had somewhat equal life skills levels.

An examination of the findings in Table 5.7 shows that the results of Mann Whitney U test, applied to compare the post life skills scores of the pre-service teachers with respect to area in the experimental and control groups, revealed a statistically significant difference (Z=-2.143, p=.032<.05). The
mean rank of the rural pre-service teachers was 50.44, while the urban pre-service teachers had a mean rank of 38.77. As a result, there was no significant difference between the rural and urban pre-service teachers’ life skills levels before the experiment; however, an examination of the mean rank of their post life skills scores demonstrates that the rural pre-service teachers had higher life skills levels than urban pre-service teachers.

Therefore it can be concluded that the Life Skills Programme was more found effective for rural pre-service teachers than the urban pre-service teachers.

$H_{09}$ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.

Table 5.18 Results of the Mann Whitney U Test on the Pre life skills levels of the pre-service teachers of the Experimental and Control Groups with respect to discipline

<table>
<thead>
<tr>
<th>Grouping variable: Discipline</th>
<th>N</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Asymp. Sig.(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>45</td>
<td>44.46</td>
<td>.348</td>
<td>2</td>
<td>.840</td>
</tr>
<tr>
<td>Science</td>
<td>27</td>
<td>45.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commerce</td>
<td>15</td>
<td>40.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.19 Results of the Mann Whitney U Test on the Pre life skills scores of the pre-service teachers of the experiment of the Experimental and Control Groups with respect to discipline

<table>
<thead>
<tr>
<th>Grouping variable: Discipline</th>
<th>N</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Asymp. Sig.(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>45</td>
<td>47.07</td>
<td>5.496</td>
<td>2</td>
<td>.064</td>
</tr>
<tr>
<td>Commerce</td>
<td>27</td>
<td>46.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>15</td>
<td>30.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A Kruskal-Wallis H Test was conducted to determine if the life skills level was different for three groups that pre-service teachers having Arts discipline (n=45), pre-service teachers having Science discipline (n=27), and pre-service teachers having Commerce discipline (n=15). A Kruskal-Wallis H Test on post life skills scores showed there was not a significant difference between the groups, \( \chi^2(2) = 0.348 \), \( P = 0.840 \), 0.064 > 0.05 (See in Table 4.8).

A Kruskal-Wallis H Test on post life skills scores showed there was not a significant difference between the groups, \( \chi^2(2) = 5.496 \), \( P = 0.064 \). However, the mean rank difference analysis of three groups showed that the difference in mean ranks between pre-service teachers having science and commerce discipline is larger and hence pre-service teachers having science discipline had greater life skills levels than the pre-service teachers having commerce discipline. Also the difference in mean ranks between pre-service teachers having arts and commerce is larger and hence pre-service teachers having arts discipline had greater life skills than the pre-service teachers having commerce discipline (Refer Table 5.9)

\[ H_{10} \text{ There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.} \]

Table 5.20 Results of the Mann Whitney U Test on the Pre life skills scores of the pre-service teachers of the Experimental and Control Groups with respect to educational qualification (degree)

<table>
<thead>
<tr>
<th>Grouping Variable: Degree</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG</td>
<td>39</td>
<td>43.36</td>
<td>1691.00</td>
<td>911.00</td>
<td>-.213</td>
<td>.831</td>
</tr>
<tr>
<td>PG</td>
<td>48</td>
<td>44.52</td>
<td>2137.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.21 Results of the Mann Whitney U Test on the Post life skills scores of the pre-service teachers of the Experimental and Control Groups with respect to educational qualification (degree)

<table>
<thead>
<tr>
<th>Grouping</th>
<th>N</th>
<th>Mean</th>
<th>Sum of Ranks</th>
<th>Mann Whitney U</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable: Degree</td>
<td>Rank</td>
<td>Ranks</td>
<td>Whitney U</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>--------</td>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UG</td>
<td>39</td>
<td>45.22</td>
<td>1763.50</td>
<td>888.50</td>
<td>- .405</td>
<td>.685</td>
</tr>
<tr>
<td>PG</td>
<td>48</td>
<td>43.01</td>
<td>2064.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of the findings in Table 5.10 reveals that the results of Mann Whitney U test, applied to compare the post life skills scores of the pre-service teachers with respect to degree in the experimental and control groups, did not show any statistical difference (Z=-.213, p=.831>.05). The mean rank of the post life skills scores of the pre-service teachers with UG degree was 43.34, while the pre-service teachers with PG degree had a mean pre-test rank of 44.52. The close mean rank of the groups’ post life skills scores for life skills levels indicate that before the experiment, the pre-service teachers having UG degree and pre-service teachers having PG had somewhat equal life skills levels.

An examination of the findings in Table 5.11 shows that the results of Mann Whitney U test, applied to compare the post life skills scores of the pre-service teachers with respect to degree in the experimental and control groups, revealed a statistically significant difference (Z=-.405, p=.685>05). The mean rank of the pre-service teachers having UG degree was 45.22, while the pre-service teachers having PG degree had a mean rank of 43.01. The close mean rank of the groups’ post life skills scores for life skills levels indicate that after the experiment also, the pre-service teachers having UG degree and pre-service teachers having PG had equal life skills levels.

Therefore it can be concluded that there was not a significant difference in life skills levels between the pre-service teachers having UG degree and PG degree or the Life Skills Programme had shown equal and similar effect on pre-service teachers having UG degree and PG degree.

5.3 Additional imperative findings of the study

5.3.1 Life Skills scores before the programme-LSP and after the programme-LSP corresponding to each life skill (for experimental group)
To find out the effectiveness of Life Skills Programme, the average life skills scores before the programme and after the programme corresponding to each core life skill were calculated.

*Table 5.22 Comparison between average life skills scores before the programme LSP and after the programme corresponding to each life skill*

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Life Skills</th>
<th>Average life skills scores before LSP (skill-wise)</th>
<th>Average life skills scores after LSP (skill-wise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self awareness skill</td>
<td>50.22</td>
<td>61.10</td>
</tr>
<tr>
<td>2.</td>
<td>Interpersonal skill</td>
<td>48.78</td>
<td>56.39</td>
</tr>
<tr>
<td>3.</td>
<td>Critical thinking skill</td>
<td>46.88</td>
<td>52.63</td>
</tr>
<tr>
<td>4.</td>
<td>Decision making skill</td>
<td>37.43</td>
<td>42.34</td>
</tr>
<tr>
<td>5.</td>
<td>Empathy</td>
<td>37.68</td>
<td>41.95</td>
</tr>
<tr>
<td>6.</td>
<td>Effective Communication Skill</td>
<td>46.56</td>
<td>52.37</td>
</tr>
<tr>
<td>7.</td>
<td>Creative thinking skill</td>
<td>55.69</td>
<td>63.19</td>
</tr>
<tr>
<td>8.</td>
<td>Problem solving skill</td>
<td>45.46</td>
<td>52.63</td>
</tr>
<tr>
<td>9.</td>
<td>Coping with stress</td>
<td>43.87</td>
<td>53.44</td>
</tr>
<tr>
<td>10.</td>
<td>Coping with emotions</td>
<td>42.9</td>
<td>48.27</td>
</tr>
</tbody>
</table>

From the table no. 5.2, it can be perceived that average of life skills scores of the pre-service teachers before the programme and after the programme differ significantly. The average of post life skills scores were found greater than the average of pre life skills scores corresponding to each life skill, which indicates that the pre-service teachers had an overall gain in life skills scale ranging from 1 to 5 points. Hence there is an improvement/enhancement in pre-service teachers’ core life skills due to the exposure of Life skills Programme, which is also evident through the graph 5.3. Thus it can be concluded that the life skills programme was effective for the pre-service teachers who were in the programme.
Further the pre-service teachers’ responses on post life skills (before the programme) were analyzed in order to identify the level of life skills among pre-service teachers before the implementation of the programme. That helped the researcher to know about ‘which life skills the pre-service teachers’ are more aware and least aware and ‘which life skills are more inherent and which are less’. The graphical presentation (Graph 5.3) would help to understand the difference of means for each life skill in a better way.

**Graph 5.3 Averages Indicating awareness and use of Life Skills among experimental group**
It is clearly perceptible from this graph 5.3 that there is a significant difference in the average scores of life skills on pre-test which indicates the awareness and use of life skills among pre-service teachers. However, the difference is not massive one. It is revealed from this graph that this group of pre-service teachers is most aware about creative thinking and self-awareness skills and these skills are most used by them. The graph also revealed that this group of pre-service teachers is least aware about decision making skill, empathy skill and skill of coping with emotions and these skills are least used by them. Most of the pre-service teachers are generally assumed to be weak in skills such as decision making, critical thinking and coping with emotion. This analysis suggested the researcher to give more activities and exercises to improve these skills.

5.3.2 Mean and Standard deviations indicating significance of life skills programme (For each of the core life skills) for experimental group

Impact of the Life Skills Programme on the pre-service teachers who were in the programme for each life skill was assessed and evaluated.

Table 5.23 Mean and Standard deviations indicating significance of life skills programme (For each of the core life skills)

<table>
<thead>
<tr>
<th>Life Skills</th>
<th>Pre life skills (N=41) Mean ± S.D.</th>
<th>Post test(N=41) Mean ± S.D.</th>
<th>p value</th>
</tr>
</thead>
</table>

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From table 5.2, it can be concluded that the total increase in each life skill was significant (as measured by the Wilcoxon Signed-rank test) for the experimental group ($p \leq 0.001$). The pre-service teachers in the Life Skills Programme program had significantly better self-awareness ($P=0.000$), Interpersonal Skill ($P=0.000$), Critical thinking Skill, ($P=0.000$), Decision making Skill ($P=0.000$), Empathy ($P=0.000$), Effective Communication Skill ($P=0.000$), Creative thinking Skill ($P=0.000$), Problem solving skill ($P=0.000$), Coping with Stress ($P=0.000$), and Coping with emotions ($P=0.000$). Hence it could be concluded that the Life Skills Programme was found effective to enhance life skills of pre-service teachers.

5.4 Data Analysis and Interpretation of Programme Evaluation questionnaire

The analysis of the Programme Evaluation Questionnaire was provided the feedback and opinions of participants about the Life Skills Programme. The analysis and interpretation of the data obtained from the Programme Evaluation Questionnaire is presented here. Out of 41 participants 36 (87.8%)
participants stated that they were not aware about life skills before the programme and 4 (9.76%) participants stated that they were aware of the skills (such as leadership skill, communication skill, thinking skills) necessitate for happy and healthy life, but they did not know the concepts of core life skills. The participants were asked to rate the Life Skills Programme on five points Likert type scale ranging from 1 to 5, 35 (85.37%) participants responded the programme as very good, 5 (12.2%) participants responded the programme as good and 1 (2.44%) responded as satisfactory. The majority of the respondents appreciated most the activities like role play, drama, and games as these activities encourage interacting and working co-operatively. The least liked activities were self-reporting, case studies and puzzles. 95.12% of participants stated that they were benefited from the Life Skills Programme as through the activities of the programme, they could exhibited their hidden self, they developed confidence, they could enhance their communication skills, they could learn to listen and respect others’ views, they could become more empathetic towards the need of the others, they could develop skills to manage the children as a teacher and could identify the creative spark within them. The majority of participants suggested that the programme could be implemented for a longer span and everybody should be given opportunities to share their views in each and every activity of the programme. Moreover they reflected that such activities and sessions should be planned in B.Ed. curriculum as such activities foster critical and creative thinking skills, social skills and communication skills which contribute most for effective teaching-learning process.

5.5 Data Analysis and Interpretation of Focused Group Discussion

The researcher had used focused group discussion as one of the evaluation tools as a means to evaluate the programme effectiveness. For that the researcher had carried out a discussion wherein participants could allow them reflect over the sessions and the programme overall. It was conducted with a purpose to get feedback and to evaluate the impact whether the participants had attained some level of enhancement in life skills and to arrive at certain observations/ conclusions. The whole discussion was monitored by the
researcher herself and all the participants could freely share and reflect over their experiences.

**Observations of Focussed Group Discussion**

- In the beginning they were quite passive to participate and hesitated to interact with the peers, but slowly as they develop interest they have started being open and free to interact with peers and the researcher too as admitted by participants.
- It was their first experience to know and learn about life skills. They realized how important the life skills are for quality and happy life.
- Participants became aware of the importance of life skills and realized the responsibility of a teacher for imparting life skills education.
- Majority of participants opined that the programme was found helpful to them as they got opportunities to explore about their hidden self.
- Participants were able to present their ideas confidently and clearly.
- Participants accepted that they learned to interact and argue for fruitful discussion and not to criticise others.
- Participants were able to interact meaningful and freely manner, at the same time they learned to respect the thoughts, opinions of others. Participants were able to convince the audience about their ideas.
- Participants could present their views and ideas with confidence and logically on various situations and problems of the programme.
- Some of the respondents appreciated most the activities like role play, drama, simulations and games as these activities encourage to interact and work co-operatively.
- They agreed that the programme and the activities were found most helpful to them in planning their lessons and handling the class while practice teaching.
- Some of them agreed that they came to know about their creative sparks that they never exhibited before.
- Watching videos or clippings with a critical perspective to relate it with real life situations proved fruitful. They found it useful to incorporate video clippings in classroom teaching to make learning more meaningful and joyful.
• The participants have become more conscious about decision making in their future ventures and have learned to become responsible for their own decisions.

• They shared that the whole programme was found useful to them in both ways in real life as an individual as well as in teaching life skills through curriculum to their students as teachers.

• They have increased sensitivity about the issues and happenings around them and have developed empathetic behaviour towards them.

• They have realized the responsibility as a teacher to develop and enhance life skills among the children and enable them to emerge as stable and healthy citizens of the nation.

• They realized the responsibility to develop life skills among their students.

• They were able to identify their positive and negative aspects like strengths-limitations as well the likes-dislikes, goals etc.

• They were able to identify the stressors and have learned the mechanisms to cope with them. They came to know about positive stress and negative stress, and realized the positive stress is required and beneficial for quality work and good life.

• They shared their views that such activities and sessions should be planned in B.Ed. / M.Ed. curricula well as in school curricula as they realized the importance of life skills in one’s life and also for teaching profession as they have to deal with the adolescents and youth in future.
5.6 Data Analysis and Interpretation of the Field notes

Observations were made by the researcher and the teacher-educator of the particular college throughout the programme. Also the researcher interacted with the teacher educators of that college and asked about the behavioural changes of the participants with the teacher educators as they spend most time with the pre-service teachers. Their observations were also incorporated.

- It was observed that most of the pre-service teachers were not aware of their self such as their aims, abilities, limitations and goals of life at the beginning of the programme.
- Those participants, who were passive in their class as admitted by their teachers and also observed by the researcher, were found active and interactive during life skills programme. Their participation level was gradually increased.
- Initially they were found hesitated to open up but slowly they become open to discuss their views with the researcher and with the classmates. The researcher found them confident and encouraged in communicating their ideas later on as the programme moves ahead. Instead some of them were seen eagerly waited for the next session of the programme as reported by the observer teacher-educator.
- They were found interested, enthusiastic and energetic in each of the activities of the programme although they liked most the activities like simulations, drama, role play, discussions wherein they had to exhibit them.
- As mentioned earlier, initially they were hesitated to involve in programme activities but later they were found more open and free in programme activities. Rather their teachers shared with the researcher that they have opened up more in assembly sessions and classroom discussions.

5.7 Discussion of the results

The study was designed to test the hypothesis that pre-service teachers who were participated in the programme i.e. LSP would exhibit more enhancements in life skills than the pre-service teachers who did not. The
present study also explored the impact of LSP with respect to gender, area, discipline and educational qualification of pre-service teachers. As mentioned elsewhere, also there was comparison group against which to judge the outcomes of the programme. According to the self-rating responses and responses in life like practical situations, of pre-service teachers in the program in comparison to those not in the program was significantly better. The present study found that by comparing life skills scores before the programme and after the programme on Life Skills Scale, female and male pre-service teachers had equal and similar life skills. Further, it was found that the rural pre-service teachers had higher life skills than the urban pre-service teachers which are exactly contrast to Jena (2011) who revealed that the school going urban adolescents were found more advanced in life skills than the adolescents from rural area. Further the impact of LSP was also found with respect to educational qualification, the programme had shown similar and equal effect on the pre-service teachers having graduation degree and pre-service teachers having post-graduation degree. Moreover, the programme was also evaluated with respect to the discipline; the pre-service teachers having science discipline have greater life skills than the pre-service teachers having commerce discipline, and the pre-service teachers having arts discipline have greater life skills than the pre-service teachers having commerce discipline. The effectiveness of Life Skills Programme was also found by comparing situational scores between experimental group pre-service teachers and control group pre-service teachers. The LSP was found effective considering overall situational test scores, but with respect to gender, area, discipline and educational qualification the LSP does not effect significantly. Overall the Life Skills Programme was found effective for pre-service teachers. These findings were consistent with the information obtained from the participants’ feedback questionnaire and focussed group discussion on evaluation of the programme. Their teachers’ feedback was also considered and they shared that the pre-service teachers perceived positive changes in class room behaviour and classroom-interaction. However, care should be taken in generalising the findings and conclusions from the statistical tests to a wider population. Commitment to the programme may have been further reinforced by the fact that the programme was sanctioned by the principal, the
college trustee and the teacher-educators at the college. Also they have decided to make Life Skills Education as a part of the B.Ed. Programme, if not in regular curriculum then at least it could be integrated with assembly sessions regularly and co-curricular activities of the college so that the pre-service teachers would develop the optimal utilization of social functioning in the classroom, school, family and community.

5.8 Conclusion
This chapter has outlined the analysis procedures of the data collected through the Pre-test and the post life skills with the interpretations. The pre-test and the post test scores analyses have been followed by the descriptive analysis and interpretation of the focused group discussion and field notes for the evaluation of the Life Skills Programme.
CHAPTER SIX
CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR
FUTURE RESEARCH

6.0 Introduction
6.1 Summary
6.2 Results of the study by hypotheses testing
6.3 Major findings of the study
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6.6 Conclusion
CHAPTER SIX
CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

6.0 Introduction
This chapter presented the brief summary of the research work carried out by the researcher. This was followed by the findings based on data analysis and the discussion of the results carried out in the light of the findings. The researcher has carried out some Educational implications based on the findings of the study and also at the end made a few recommendations for further researches in the area of present study.

6.1 Summary
Statement of the Problem
Effectiveness of a Life Skills Programme on teacher trainees

Operational Definitions of the Key Terms
Various key words used in the present study - Life Skills, Life Skills Programme, Effectiveness and Pre service teachers are operationally defined as below:

**LIFE SKILLS**
Core skills include (WHO 1997: p.1) for the present study are Self-awareness skill, Interpersonal relationship skill, Effective communication skill, Problem solving skill, Decision-making skill, Creative thinking skill, Critical thinking skill, Empathy, Coping with emotions and Coping with stress.

**LIFE SKILLS PROGRAMME**
For the present study, the Life Skills Programme consists of the programme outcomes targeting to develop life skills, a series of learning activities and tasks based on the programme outcomes, techniques and the procedure to be employed which will involve the participants in working towards the achievement of one or more learning outcomes for developing core life skills mentioned above.

**EFFECTIVENESS OF THE LIFE SKILLS PROGRAMME**
Effectiveness of the Life Skills Programme for the present study means the enhancement in the life skills of pre-service teachers as evident through the difference between the pre-intervention scores and post-intervention scores.

**Research Objectives**

The research objectives of the study were:

1. To construct a situational test to assess the level of life skills of pre-service teachers in life related situations before and after the intervention- LSP.
2. To construct a Life Skills Scale (LSS) to assess the level of life skills of pre-service teachers before and after the intervention- LSP.
3. To explore the methods and strategies to impart life skills education, and to develop a Life Skills Programme (LSP) for pre service-teachers.
4. To study the effect of the Life Skills Programme (LSP) by assessing the difference between pre-service teachers who participated in the program and who did not.
5. To study the effect of a Life Skills Programme on pre-service teachers with respect to gender, the area they belong to, the discipline they opted at higher-secondary school level and the educational qualification.
6. To find out the opinions of pre-service teachers (who participated in the programme) regarding Life Skills Programme.

**Variables involved in the Study**

Variables involved in the study Variables are the conditions or characteristics that the experimenter manipulates, controls or observes. In this study, the treatment variable was the implementation of the ‘Life Skills Programme’ to enhance life skills which was exposed to the pre-service teachers. And the attributed variables for the present study were gender, area, discipline opted at higher-secondary school level and educational qualification of the pre-service teachers. The dependent variable in the present study were life skills scores measured on life skills scale and situational test with respect to gender(female/Male), area they belong to (rural/urban), the discipline they
opted at higher secondary level (Arts/Science/Commerce) and the educational qualification of pre-service teachers (UG/PG).

**Hypotheses of the study**

In view of the preceding statement of the problem, this research is directed further by the following null hypotheses:

**Hypothesis framed by considering Scores on Situational Test**

H\(_01\) There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not.

H\(_02\) There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to gender.

H\(_03\) There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to area.

H\(_04\) There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.

H\(_05\) There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

**Hypotheses framed by considering Scores on Life Skills Scale**

H\(_06\) There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who attended the programme and who did not.

H\(_07\) There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to gender.

H\(_08\) There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area.
There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.

There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification.

**Area of the Research**
Fifth survey of educational Research (1988-92) mentions thirty-eight areas of educational research. The present research is having more relevance with certain areas: (1) Life Skills Education, and (2) Teacher-Education.

**Research Design**
The study incorporated quasi-experimental design namely Pre-test Post life skills Non-equivalent Experimental Control Group design. The experimental group was exposed to Life Skills Programme and the control group was given Life Skills Theoretical Orientation. The Life Skills Scale and Situational Test (at pre phase) were administered at the beginning of the experiment to both the groups to assess the pre-status of life skills and the use of life skills in real life situations of pre-service teachers. The Life Skills Scale and Situational Test (at post phase) were administered towards the end of the experiment to measure the enhancement level and to evaluate the effectiveness of the treatment, that is, Life Skills Programme.

**Target Population & Sample**
**Population:**
The target population for the present study was comprised the pre-service teachers of all 29 Colleges of Education affiliated to the Veer Narmad South Gujarat University.

**Sample:**
The investigator employed purposive sampling technique which falls under non-probability sampling method. The sample comprised 87 pre-service teachers, among them 41 pre-service teachers from the Vivekananda College.
for B.Ed (served as experimental group) and 46 pre-service teachers from the S.R.Patel College of Education (served as control group).

**Instruments for Data Collection**

The Situational Test and Life Skills Scale (used at pre phase and post phase level) were used to assess the level of life skills before and after the intervention-LSP. A range of questions based on understandings of life skills and the practices of life skills in real life situations were incorporated in the situational test, and were employed before and after the intervention-LSP. The Life Skills Scale covered items that evaluated various constructs (indicators) of the core life skills inherent among pre service teachers. Programme Feedback Questionnaire, Focused Group Discussion and Field Notes and Observations were used to get opinions of pre-service teachers about Life Skills Programme, which was subsequently translated into Gujarati.

**Data Analysis and Interpretation procedures**

For statistical analysis, the data from the life skills scale and situational test were statistically analyzed using SPSS (Statistical Package for Social Sciences, version 15.0). Non-parametric tests such as Mann-whitney test (U) and Kruskal Wallis Test (H) were rightly applicable for the study. Quantitative data collected by means of the Life Skills Scale and Situational Test are examined through appropriate statistical procedures. The Mann Whitney U test was used for two independent sample cases and Kruskal-Wallis Test (H) was used for two paired measures. This test presents better results when the dependent variable is measured on an ordinal scale (John et al, 1981). The actual outcomes have been presented in an authentic manner by the researcher in the present chapter.

**6.2 Results of the study by hypotheses testing**

(a) The objective of the study was to evaluate effectiveness of a Life Skill Programme by comparing pre situational scores and post situational scores of experimental group and control to test $H_{01}$, which was, “There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did
not”. After the analysis and interpretation of the data, the null hypothesis $H_{01}$ is rejected.

Hence Life Skills Programme was proved effective for pre-service teachers who attended the programme than who did not. Pre-service teachers who participated in the programme enhanced their life skills significantly through Life Skills Programme.

(b) The objective of the study was to evaluate effectiveness of a Life Skills Programme with respect to area to test $H_{02}$ which was “There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to gender”. After the analysis and interpretation of the data, the null hypothesis $H_{02}$ is rejected.

Hence, it can be concluded that as an impact of the Life Skills Programme, Female pre-service teachers had higher life skills than the male pre-service teachers.

(c) The objective of the study was to evaluate effectiveness of a Life Skills Programme on situational Test with respect to area to test $H_{03}$ which was “There will be no significant difference in pre situational scores and post-situational scores between pre-service teachers who participated in the programme and who did not, with respect to area”. After the analysis and interpretation of the data, the null hypothesis $H_{03}$ is rejected.

Hence, it can be concluded that Life Skills Programme was found more effective for rural pre-service teachers than the urban pre-service teachers.

(d) The objective of the study was to evaluate effectiveness of a Life Skills Programme with respect to discipline to test $H_{04}$ which was “*There will be no significant difference in pre situational scores and post situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline*”. After the analysis and interpretation of the data, the null hypothesis $H_{04}$ is rejected.

Hence it can be concluded that there is no statistically significant difference in life skills scores between pre-service teachers having arts,
science and commerce discipline. However, considering mean ranks, pre-service teachers having science discipline had greater life skills levels than the pre-service teachers having commerce discipline and pre-service teachers having arts discipline had greater life skills than the pre-service teachers having commerce discipline.

(e) The objective of the study was to evaluate effectiveness of a Life Skills Programme with respect to educational qualification to test $H_{05}$ which was, “There will be no significant difference in pre situational scores and post situational scores between pre-service teachers who participated in the programme and who did not, with respect to educational qualification (UG/PG)”. After the analysis and interpretation of the data, the null hypothesis $H_{05}$ is accepted.

Hence, it can be concluded that the Life Skills Programme Life Skills Programme had shown equal and similar effect on pre-service teachers having UG degree and PG degree.

(f) The objective of the study was to evaluate effectiveness of a Life Skills Programme by comparing situational test scores of experimental group and control group to test $H_{06}$ which was, “There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not.” After the analysis and interpretation of the data, the null hypothesis $H_{06}$ is rejected.

Hence, it can be concluded that the Life Skills Programme Life Skills Programme was proved more effective for pre-service teachers who attended the programme than who did not.

(g) The objective of the study was to evaluate effectiveness of a Life Skills Programme by comparing situational test scores of experimental group and control group with respect to area to gender $H_{07}$ which was, “There will be no significant difference in prolife skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area”. After the analysis and interpretation of the data, the null hypothesis $H_{07}$ is accepted.
Hence, it can be concluded that Life Skills Programme had equal and similar effect for female pre-service teachers and the male pre-service teachers.

(h) The objective of the study was to evaluate effectiveness of a Life Skills Programme by comparing situational test scores of experimental group and control group with respect to area to test $H_{08}$ which was, “There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme and who did not, with respect to area.” After the analysis and interpretation of the data, the null hypothesis $H_{08}$ is rejected.

Hence, it can be concluded that Life Skills Programme was more found effective for rural pre-service teachers than the urban pre-service teachers.

(i) The objective of the study was to evaluate effectiveness of a Life Skills Programme by comparing situational test scores of experimental group and control group with respect to discipline to test $H_{09}$ which was, “There will be no significant difference in pre life skills scores and post life skills scores situational scores between pre-service teachers who participated in the programme and who did not, with respect to discipline.” After the analysis and interpretation of the data, the null hypothesis $H_{09}$ is accepted.

Hence it can be concluded that there is no statistically significant difference in life skills scores between pre-service teachers having arts, science and commerce discipline. However, considering mean ranks, pre-service teachers having science discipline had greater life skills levels than the pre-service teachers having commerce discipline and pre-service teachers having arts discipline had greater life skills than the pre-service teachers having commerce discipline.

(j) The objective of the study was to evaluate effectiveness of a Life Skills Programme by comparing situational test scores of experimental group and control group with respect to educational qualification to test $H_{10}$ which was, “There will be no significant difference in pre life skills scores and post life skills scores between pre-service teachers who participated in the programme
and who did not, with respect to educational qualification (UG/PG).” After the analysis and interpretation of the data, the null hypothesis $H_{10}$ is accepted.

Hence it can be concluded that Life Skills Programme had shown equal and similar effect on pre-service teachers having UG degree and PG degree.

6.3 Major findings of the study

1. The Life Skills Scale (as Pre-test and Post-test) was developed and administered on pre-service teachers of both the groups to rate their life skills before and after the intervention-Life Skills Programme. Situational test (incorporating items/questions to assess the conceptual understanding and their behaviours in life-like situations) was also developed and employed to determine the effectiveness of the Life Skill Programme. The validity and reliability of the Life Skills Scale and Situational Test was estimated. The Life Skills Programme was implemented on a group of 41 pre-service teachers.

2. The Life Skills Programme was developed to improve the life skills of pre-service teachers. Appropriate activities/exercises were developed relevant to the nature of life skills (Self-awareness skill, Interpersonal skill, Effective communication skill, Critical thinking skill, Problem-solving skill, Decision-making skill, Creative thinking skill, empathy, Coping with emotions and coping with stress) as each skill demands different kind of methodology, materials, mode of participation-individual/pair/group and follow up procedure. (See Table 4.1 for the methodology and Table 4.2 for the activites/exercises of LSP in Chapter 4).

3. The Life Skills Programme was piloted on twenty four pre-service teacher educators to check the feasibility and validity of the programme and to evolve the programme to its advanced form. The findings of pilot study indicated that the overall impact of Life Skills Programme on pre-service teacher educators was significant. Also the findings revealed that the demographic characteristics (discipline and educational qualification) of the pre-service teachers does not affect significantly on life skills scores.

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4. The results of the pilot study were encouraging as enrolment, and both retention and session attendance were high. The acceptability of the programme found very high as more than 90% participants indicated that they would recommend including in the teacher-education curriculum. Their understanding regarding life skills increased due to intervention- LSP. The findings revealed the need for life skills awareness and life skills training for prospective teachers. It was found from the analysis that the thrust life skill areas on which training required were empathy skills, decision making skills and coping with emotions. The life skills areas in which they have greater awareness were creative thinking skills and self-awareness skills.

5. The researcher had formulated ten null hypotheses to compare between experimental group and control group of main study. The programme was also evaluated with respect to the variables such as gender, area, the discipline opted at higher-secondary school level and the degree the pre-service teachers hold. The analysis of the data was done using non-parametric statistical techniques: Mann-whitney U Test and Kruskal Wallis Test. The hypotheses tested and the results are as below. By comparing the situational test scores of pre-service teachers of experimental group and control group and by comparing the life skills scores of experimental group and control group, the following results were found:

- The Life Skills Programme had a statistically significant effect for pre-service teachers who participated in programme-LSP than who did not, which indicates that the enhancement of life skills was due to practical and experiential teaching.
- The Life Skills Programme had a statistically significant effect on female pre-service teachers than the male pre-service teachers.
- The Life Skills Programme had a statistically significant effect on rural pre-service teachers than the urban pre-service teachers.
• The Life Skills Programme had no statistically significant effect with respect to discipline. However, by considering the mean ranks, the Life Skills Programme had a statistically significant effect on pre-service teachers having science discipline than the pre-service teachers having commerce discipline. The Life Skills Programme had a statistically significant effect on pre-service teachers having arts discipline than the pre-service teachers having commerce discipline.

• The Life Skills Programme had no statistically significant effect with respect to education qualification (UG/PG) of pre-service teacher. The Life Skills Programme had shown equal and similar effect on pre-service teachers having UG degree and PG degree.

6. The Programme Evaluation Questionnaire was administered to evaluate the Life Skills Programme. 85.37% participants responded the programme as very good. 95.12% of participants stated that they were benefited from the Life Skills Programme as through the activities of the programme, they could exhibited their hidden self, they developed confidence, they could enhance their communication skills, they could learn to listen and respect others’ views, they could become more empathetic towards the need of the others, they could develop skills to manage the children as a teacher and could identify the creative spark within them. The majority of the respondents appreciated most the activities like role play, drama, and games.

7. The findings gained through results of hypothesis testing and pre-service teachers’ opinions through Programme Evaluation Questionnaire was consistent with the feedback of the focused group discussion of the pre-service teachers after exposed to LSP. They are as follow:

• They liked most the activities like simulations, drama, role play, discussions wherein they had to exhibit them.
They realized that the life skills play very important role in one’s life and also for teaching profession as they have to deal with the adolescents and youth in future.

It was immerged from the responses of pre-service teachers through focused group discussion that the overall impact of programme enabled them to enhance in their empathy, interpersonal skills, communication skills and thinking skills.

8. The overall response regarding Life Skills Programme was positive and Life Skills Programme had a statistically significant effect on pre-service teachers of that particular college. But the reliability and validity of the study would have been increased,

- if the selection and assignment of subjects to groups could have done by randomization;
- if the study could use standardized tool-life skills scale;
- if teachers and parents would be involved to get feedback about the impact of Life Skills Programme on the participants in terms of their behavioural aspects,
- if the study could be extended for longer duration.

6.4 Educational Implications

1. It is fact that the life skills are a set of abilities that could not be measurable in a true sense but can be improved through continuous experience and practice through appropriate teaching-learning strategies. Teachers should be given life skills training through integration of life skills strategies into their classroom setting whether it is pre-service training programme or in-service training programme. Institutions and government efforts should be focused on to develop life skills module with the experts and to provide facilities for enhancing the Life Skills awareness among the Pre-service and In-service teachers. As government and educational initiatives has recommended integrating Value Education, Mural Education and SUPW in school curriculum, Life Skills Education should also be
given a place in the school curriculum either in isolation mode or can be integrated with other school subjects in a structured manner.

2. It is true that these skills cannot be taught within a limited time frame i.e. ten to forty sessions. Once the learners are oriented about life skills, it must be learned through conscious self efforts for a longer time span in real life situations. There must be regular training and motivation, constant exposure and practice to problem situations and feedback so that the positive behaviour can be learnt.

3. This programme can be used as an in-service training programme at all levels of education whether it would be primary, secondary, or higher secondary level with some modifications in learning experiences.

4. As the teachers have to deal also with adolescents and youth, it is very essential that they learn to behave as mature and balanced individual, possess different life skills and incorporate activities that facilitate a youth to have sound and quality life in the school and the society.

5. Pre-service and In-service teachers should be given Life Skills Orientation and training through the refresher courses, seminars, workshops to prepare them to deal with teenagers and youth.

6. If not in a strict manner to integrate life skills education at teacher education level, the teacher education programmes can make conscious efforts to teach the trainees the co-operative learning Strategies like role-play, drama, group discussions, games etc. not only on a theoretical base but they need to take a great care and provide such an environment in which they can practise such strategies. They should be forced not only to prepare their lesson based on bloom taxonomy but make sure that they really engage the class wherein the learners can develop such competencies in true sense. As the three categories of Bloom’s Taxonomy focus on development of cognitive, affective, psychosocial and psychomotor competencies, which are nothing but a set of life skills.

7. The teaching-learning process can be integrated with life skills content whenever they implement the co-operative strategies like role-play, drama, group discussions etc. Schools/colleges/institutes need to engage the students/trainees in various curricular and co-curricular
activities like celebrations of various types, various days’ celebration, value weeks’ celebration, extra mural classes, intra-class competitions, workshops, debates field visits and awareness programs (rally, excursions, and picnic) in an integrated manner with school-class-room settings as to develop life skills. This at least any institution can do if not able to provide Life Skills Education solely.

8. Various voluntary organisations (NGO’s) that work for quality life of people, for improving their life standard can include such life skills programmes.

6.5 Recommendations and Suggestions for further research

Analysis of the results based on the pre-service teachers’ performance through the test scores suggest that the life skills programme was found effective in enhancing life skills of pre service teachers. In addition, the pre-service teachers’ responses from the Programme Evaluation Questionnaire resulted in an overall positive evaluation. In view of the insights developed through the present study, the following suggestions have been recommended to accomplish further research in this particular area.

1. The Life Skills Scale developed and used by the researcher was not a standardized one. A standardized Life Skill Scale can be developed in Indian context to carry out need based analysis of life skills.

2. Similar intervention programmes can be extended with a larger sample and spread over a longer stretch of time (a semester or a year) to determine the long-term effect of the Life Skills Programme.

3. Life Skills Orientation/Awareness Programmes can be conducted at various levels of Education, which is reflected through the present study and also supported by the findings of the studies carried out by Paul et al. (1995), Bhave (1999), Sharma (2003) and Promod & Pereira (2011) pointed out that there is a need to develop life skills awareness and life skills constructs for teachers at all levels.

4. Appropriate modifications in developed Life Skills Programme could be of use to various groups according to their needs.

5. A comparative study of awareness of life skills among pre-service teachers and in-service teachers can be conducted.
6. Development of studies on teaching life skills by integrating with teaching of other subjects was countable in numbers. It was found from the review that only Kumari (2002) and Grover (2006) had related it with mathematical education and science education so far. Studies can be carried out to teach life skills through the ‘life skills learning across curriculum’ or ‘life skills learning through subject teaching’ can be experimented in a model schools.

7. A survey can be carried out to identify the life skills attributes/constructs among pre-service teachers and in-service teachers.

8. Parents’ and teachers’ feedback can also be considered to get insights about the effects of such programmes as they evidence most on the behaviour modification of the participants as they are the persons who remain very close to them.

9. A critical Study of the programmes offered by CBSE schools for imparting Life Skills Education can be carried out, as the Central Board of Secondary Education (CBSE) introduced life skills education in class 6th in 2003-4, in class 7th in 2004-5 and subsequently in classes 8th, 9th and 10th.

10. A survey for School students/Secondary Teachers/College teachers/University teachers/Teacher educators at the district, state and national level can be taken up to know status of life skills.

11. A case study of a school/institution can be carried out who provides Life Skills Education intensively.

12. Life Skills Programmes can also be offered to parents and interested community members and effectiveness can be measured.

13. A comparative study can be conducted by surveying life skills education trying out such Life Skills Programmes even for the urban and rural pre service teachers

**6.6 Conclusion**

To conclude, the research study was significant in establishing that the life skills programme provided innovative and creative ways of cultivating and enhancing pre service teachers’ life skills i.e. cognitive and psycho-social
skills. It helps to get insight into the use of Life Skills Programme for both the teachers and the students and for the society as a whole. Thirty five hour programme is a very short period to develop life skills; however the programme which is experiential and situation specific to the pre-service teachers was found significant at some level. Continuous practice of these skills ascertains the mastery over life skills and application of such skills into real life situations would lead the happy and healthy life.

The overall response regarding Life Skills Programme was positive and Life Skills Programme had a statistically significant effect on pre-service teachers of that particular college. But the reliability and validity of the study would have been increased,

- if the selection and assignment of subjects to groups could have done by randomization;
- if the study could use standardized tool-life skills scale;
- if teachers and parents would be involved to get feedback about the impact of Life Skills Programme on the participants in terms of their behavioural aspects,
- if the study could be extended for longer duration.
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ents.pdf
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Appendix I
Life Skills Scale

Information Schedule
1. Name of the teacher trainee:
2. Institute Name:
3. Gender : Put (√) mark below as applicable
   a. Male :_______________________________________________
   b. Female :_____________________________________________
4. Area : Put (√) mark below as applicable
   a. Urban :_______________________________________________
   b. Rural :______________________________________________
5. Discipline : Put (√) mark below as applicable
   a. Science :_____________________________________________
   b. Commerce :__________________________________________
   c. Arts :______________________________________________
6. Kindly mention your Educational Qualification in the below table.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Examination Passed</th>
<th>Board/ University</th>
<th>Subject/Area</th>
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Dear Teacher Trainee,

Confidentiality statement: This information is strictly confidential and will be used for research purpose only. Your response will remain confidential.

General instruction: Below is a list of statements related to life skills. A questionnaire comprising of 10 components and 125 items, has been prepared for seeking your responses how much you know about yourself with regard to
life skills and how much do you practice in real life. Mark your response as tick (✓) in any one of the five point scale of life skills inventory which you feel appropriate according to you. The columns on the right side carry terms as ‘Nil-1’, ‘2-Little’, ‘3-Satisfactory’, ‘4-Much’ and ‘5-Most’, and. You are requested to tick (✓) in the column, in accordance of your choice.

- All statements are important.
- Mark tick (✓) for each statement.
- Feel free to ask if you have any query regards to the questionnaire.

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<thead>
<tr>
<th>Sr. No.</th>
<th>Statements</th>
<th>1</th>
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<th>3</th>
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<tbody>
<tr>
<td>1.</td>
<td>I know myself.</td>
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<td>2.</td>
<td>I can acknowledge my feelings.</td>
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<td>3.</td>
<td>I know my likes and dislikes.</td>
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<td>4.</td>
<td>I know my individual (personal) characteristics.</td>
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<td>5.</td>
<td>I know my capabilities/potentialities.</td>
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<td>6.</td>
<td>I have positive attitude towards myself.</td>
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<td>7.</td>
<td>I can influence what happens to me.</td>
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<td>8.</td>
<td>I feel I am needed in this world.</td>
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<td>9.</td>
<td>I know my needs.</td>
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<td>10.</td>
<td>I can contribute to my family and community in meaningful ways.</td>
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<td>11.</td>
<td>I have ability to express my feelings appropriately.</td>
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<td>12.</td>
<td>I have clarity about the goals of my life.</td>
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<td>13.</td>
<td>I know my rights and responsibilities.</td>
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<td>14.</td>
<td>I am a positive person.</td>
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<td>15.</td>
<td>I am a confident person.</td>
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<td>16.</td>
<td>I know and understand my family and friends.</td>
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<td>17.</td>
<td>I know how to build and develop relationships</td>
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<td>18.</td>
<td>I know how to date and develop relationships with opposite sex.</td>
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<td>19.</td>
<td>I contribute to develop my school and community.</td>
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<td>21.</td>
<td>I can communicate effectively.</td>
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<td>22.</td>
<td>I am a good listener.</td>
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<td>23.</td>
<td>I am a good speaker.</td>
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<td>24.</td>
<td>I am able to share, communicate, share and trust people.</td>
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<td>25.</td>
<td>I know where I should go for help/ guidance.</td>
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<td>26.</td>
<td>I love and respect each relation of my life.</td>
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<td>27.</td>
<td>I enjoy working collaboratively.</td>
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<td>28.</td>
<td>I prefer sharing my views.</td>
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<td>29.</td>
<td>My perspective on truth is reasonable.</td>
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<td>30.</td>
<td>I can separate hearsay and rumour from fact and distinguish assuming, guessing, and speculating from knowing.</td>
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<td>31.</td>
<td>I am not ethnocentric.</td>
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<td>32.</td>
<td>I welcome changes.</td>
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<td>33.</td>
<td>I am not conformist.</td>
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<td>34.</td>
<td>I am not a stereotype.</td>
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<td>35.</td>
<td>I tend to use oversimplification.</td>
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<td>36.</td>
<td>I don’t believe in any superstition.</td>
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<td>37.</td>
<td>I tend to make hasty conclusions.</td>
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<td>38.</td>
<td>I build up my opinions on the basis of facts and experiences.</td>
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<td>39.</td>
<td>I criticize my each action to improve myself.</td>
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<td>40.</td>
<td>I always think ahead and confirm my actions are right.</td>
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<td>41.</td>
<td>I take my decisions independently.</td>
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<td>42.</td>
<td>I consider myself responsible for my each decision.</td>
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<td>43.</td>
<td>I take help of others while taking decisions many times.</td>
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<td>44.</td>
<td>I take the responsibility about the consequences of my decisions.</td>
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<td>45.</td>
<td>I consider all the solutions/alternatives of the problem and then finally choose the best one.</td>
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<td>46.</td>
<td>I analyze all the aspects of the problem.</td>
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<td>47.</td>
<td>I am ready to take up new challenges.</td>
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<td>48.</td>
<td>I don’t blame others for results of my own decisions.</td>
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<td>49.</td>
<td>I think positive while taking decision.</td>
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<td>50.</td>
<td>I feel confident about my own decision.</td>
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<td>51.</td>
<td>I understand the feeling of others.</td>
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<td>52.</td>
<td>I help others and try to find out solution for them.</td>
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<td>53.</td>
<td>I feel happy and satisfied when I help others.</td>
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<td>54.</td>
<td>I get emotional when I see someone in trouble.</td>
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<td>55.</td>
<td>I feel bad for the others having pain.</td>
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<td>56.</td>
<td>I try not to hurt anybody.</td>
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<td>57.</td>
<td>I reflect on own behaviors with reference to the situation.</td>
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<td>58.</td>
<td>I feel guilt if I hurt anybody.</td>
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<td>59.</td>
<td>I realize my own responsibility to help others.</td>
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<td>60.</td>
<td>I feel sorry for the affected and help one and other way.</td>
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<td>61.</td>
<td>I freely share my views/ideas/opinions with others.</td>
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<td>62.</td>
<td>I actively listen others’ views, ideas and opinions.</td>
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<td>63.</td>
<td>I never reject other people’s ideas out of hand often.</td>
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<td>64.</td>
<td>I think and organize before communicating to others.</td>
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<td>65.</td>
<td>I use appropriate tone and language to communicate with others.</td>
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<td>66.</td>
<td>I change my communication style/ways of communication as per the need of the situation.</td>
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<td>67.</td>
<td>I accept relevant information provided by others.</td>
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<td>68.</td>
<td>I make appropriate use of gestures and body language while communicating.</td>
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<td>69.</td>
<td>I reflect on my own behaviors with reference to the situation.</td>
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<td>70.</td>
<td>I confidently present my own ideas, views and opinions.</td>
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<td>71.</td>
<td>I clarify the things which create confusion in relations.</td>
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<td>72.</td>
<td>I think my communication skills hinder my work.</td>
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<td>73.</td>
<td>I perform tasks differently.</td>
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<td>74.</td>
<td>I enjoy doing tasks in different manner/innovatively.</td>
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<td>75.</td>
<td>I love experimenting new things in my life.</td>
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<td>76.</td>
<td>I remain engage in constructing innovative ideas.</td>
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<td>77.</td>
<td>I incorporate all aspects to generate innovative ideas.</td>
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<td>78.</td>
<td>I am imaginative thinker.</td>
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<td>79.</td>
<td>I am able to create own innovative ideas as solution to the problem.</td>
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<td>80.</td>
<td>I have clarity regarding own creative ideas.</td>
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<td>81.</td>
<td>I changes ways of performing task as per requirement.</td>
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<td>82.</td>
<td>I act on intuition.</td>
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<td>83.</td>
<td>I follow my original ideas.</td>
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<td>84.</td>
<td>I often make jokes, or play with “crazy” ideas when seeking solutions even to serious problems.</td>
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<td>85.</td>
<td>I can find many ways to do any work.</td>
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<td>86.</td>
<td>I bring innovativeness in my work.</td>
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<td>87.</td>
<td>I involve myself in thinking in leisure time.</td>
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<td>88.</td>
<td>I visualize success in advance.</td>
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<td>89.</td>
<td>I often receive solutions of my problems through dreams.</td>
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<td>90.</td>
<td>I evaluate all the aspects of the information/problem/matter before accepting.</td>
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<td>91.</td>
<td>I am ready to face challenging situations in my life.</td>
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<td>92.</td>
<td>I am ready to adopt new ways to solve the problem.</td>
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<tr>
<td>93.</td>
<td>I confidently face challenging situations in life.</td>
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<tr>
<td>94.</td>
<td>I never quit own self to face challenging situations.</td>
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<td>95.</td>
<td>I am rational thinker.</td>
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<td>96.</td>
<td>I feel confident to solve the problem.</td>
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<td>97.</td>
<td>I hesitate to express own feelings.</td>
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<tr>
<td>98.</td>
<td>I am self controlled, not over react to the situation.</td>
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<tr>
<td>99.</td>
<td>I like to analyze and answer problem solving tasks.</td>
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<td>100.</td>
<td>I believe in facing facts.</td>
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<tr>
<td>101.</td>
<td>I never put off doing things.</td>
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<tr>
<td>102.</td>
<td>I can handle and deal with conflict.</td>
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<td>103.</td>
<td>I can handle and deal with anger.</td>
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<td>104.</td>
<td>I feel uneasy whenever I am not able to</td>
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<tr>
<td>105.</td>
<td>I do not blame oneself or God for the stressful situation.</td>
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<tr>
<td>106.</td>
<td>I am able to control physical changes to some extent.</td>
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<td>107.</td>
<td>I am generally calm under all circumstances, even stressful ones.</td>
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<tr>
<td>108.</td>
<td>I think positive for all situations of the life.</td>
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<tr>
<td>109.</td>
<td>I do not feel helpless and hopeless.</td>
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<tr>
<td>110.</td>
<td>Due to stress I don’t lose interest from the life.</td>
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<tr>
<td>111.</td>
<td>I confidently try to find out the solution to the problem.</td>
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<td>112.</td>
<td>I do not seek on others.</td>
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<td>113.</td>
<td>I always think positive in any stressful situation.</td>
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<td>114.</td>
<td>I do things timely, so that I can get free from Unwanted stress.</td>
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<tr>
<td>115.</td>
<td>I confidently show my disagreement to others.</td>
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<tr>
<td>116.</td>
<td>I don’t react spontaneously to the situation.</td>
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<td>117.</td>
<td>I am self controlled.</td>
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<td>118.</td>
<td>I am able to control and cope with negative emotions.</td>
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<td>119.</td>
<td>I don’t feel inferior for own self.</td>
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<td>120.</td>
<td>I express own feelings to the right person.</td>
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<td>121.</td>
<td>I tell others’ mistakes but in a clear and soft way.</td>
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<td>122.</td>
<td>I accept my mistakes and weaknesses sportingly.</td>
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<td>123.</td>
<td>I do not get easily get angry and sulk.</td>
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<td>124.</td>
<td>I am happy-go-lucky person.</td>
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<td>125.</td>
<td>I am self-disciplined.</td>
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Appendix II

Situational Test (English Version)

Information Schedule:
Name of the Student teacher:……………………………………………………
Gender (Male/Female):……………………………………………………………
Area (Rural/Urban):………………………………………………………………
Discipline (Arts/Science/Commerce):…………………………………………
Educational Qualification (Graduation/Post-graduation):……………………

Dear Teacher trainees,
Here are some questions related to core life skills. Each of them relates your everyday life situations. Give your response as per your understanding of the situation or question. If you find any query or doubt, please feel free to ask the researcher for clarification.

Your response to this questionnaire will remain strictly confidential and the data will be assessed only by the researcher. Results will be aggregated and reported in a way which does not reveal individual identity.

Thank you.

1. What do you mean by life skills?
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2. Which are the life skills that are essential to live a happy and successful life?

   1. 6.
   2. 7.
   3. 8.
   4. 9.
   5. 10.
3. What are your strengths and weaknesses? How?

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<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<td>2.</td>
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<td>3.</td>
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4. What are the aims and goals of your Life?

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5. Which five adjectives can portray/describe you better?

Introvert, extrovert, ambivert, independent, confident, confused, talkative, quiet, assertive, hesitant, friendly, isolated, stubborn, flexible, spendthrift, easy going, generous, hard working, determined, lazy, kind, perseverance, cunning, ambitious (You may decide your own titles and write below.)

1. .................................................................
2. .................................................................
3. .................................................................
4. .................................................................
5. .................................................................

6. You are assigned a duty of supervisor. You notice that one of the students is copying from a chit. You catch her doing so. What will you do in this situation?

(a) Call the exam superintendent/authority and ask him to take necessary actions.
(b) Give him/her warning once and let him/her allow writing.
(c) Check him/her things and clothes to verify if other chits are with him/her.
(d) Overlook her activity
(e) Any Other- specify

Justify your answer:

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Q.7 You are assigned a group project. But one of the group members is good at presentation skills. You and the other members work hard to collect information and complete the field work. Finally you prepare the project report and ask that member to present the report before the class. That member presents the report as if he and his friend have done everything. They don’t give you any credit. Now you are afraid that it would affect your marks. What will you do in such situation?
   a) You immediately interfere and openly declare that it is all you who worked and prepared the report.
   b) You will consider it as a bad experience and let go.
   c) You meet the teacher personally and explain the work you did.
   d) At first instance you worry about the marks but later you realize that the knowledge, the satisfaction and the capabilities you developed is more important than marks and so you ignore it.

Justify your answer:

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Q.8 You migrate from village to city to get a good job. You work in one departmental store near your uncle-aunt’s home and stay with your uncle-aunty. Your partner forces you to leave that job and find a new home on rental so that they can spend more time with each other. What would you do in such situation? (Tick mark ‘✓’ only on the appropriate answer you think.)
Q.9 What is a prerequisite for ‘effective communication? Why?
(a) Clarity
(b) Compatibility
(c) Awareness
(d) Feedback

Q.10 Explain the Communication Process with its elements using appropriate diagram.

Q.11 One of your friends misbehaves with you and hurt you but you forgive him as you know he is passing through bad circumstances in his family.” – When you do so, your behaviour shows __________. (Only Tick mark ‘✓’ on the appropriate answer.)
(a) Sympathy
(b) Empathy
(c) Your responsibility as a good citizen
(d) Friendship
Q.12 Read the case studies below and analyzes them. State which teacher’s behaviour is most appropriate and which teacher’s behaviour most inappropriate? Why?

(a) Mr. Desai is teaching a new song in his music class to seventh grade students. During his class, he observes three students chatting amongst them. He punished them to stand on a last bench. And he continues with his class.

(b) Sudhir says to his biology teacher in a complaining mode that why should we learn ‘Photosynthesis?’ Realizing sudhir’s dislike towards biology, he redirects that question to class that can anybody tell why we should learn ‘Photosynthesis’?

(c) Mr. Dave tells to his 9th grade students that they disappointed him today very much. You don’t know anything. You cannot think anything. You all are useless.

Q.13 What is less important in Critical Thinking? (Only Tick mark ‘✓’ on the appropriate answer.)

(a) Rationality
(b) Reflective thinking
(c) Intellectual humility
(d) Analytical power
(e) All are equally important

Q.14 What is creativity?
Q.15 State any four characteristics of a creative person.

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Q.16 You are selected as a lecturer in one of the best self financed B.Ed. colleges through campus interview organized at your college. That job offers you Rs. 25000 per month. Simultaneously you are also selected as an assistant teacher in one of the government schools with Rs. 5300 monthly pay. What would you do? What decision you would take? Why?

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Q.17 Reorganize the steps of problem solving in chronological order.

a. Define the problem 
b. Organizing information 
c. Forming a strategy 
d. Allocating information 
e. Evaluating the results 
f. Monitoring progress 
g. Identifying the problem 
1......................................................
2.......................................................
3......................................................
4......................................................
5......................................................
6......................................................
7......................................................
Q.18 You migrate from village to city and stay in a hostel. Your friends often use drugs and alcohol. They insist you to take it and enjoy a life. You fear that if you don’t do it, they break relations with you. What would you do in such situation? Justify your answer.

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Q.19 Explain the steps of decision-making process.

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Q.20 Give 10 uses of a pen other than writing.

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Q.21 Kirti is a research project co-ordinator who is deeply engaged with the idea of teamwork. She has taken over a long-term project but finds that the work of two members is not up to the mark as they have not had much experience in that domain. Which of the following options would indicate the highest level of her engagement? (Only tick mark ‘√’ on the correct answer.)

(a) She gives them the simplest of tasks so that they can do them easily.
(b) She gives them the same kind of tasks she gives others, and gives them constant feedback.
(c) She gives them the same kind of tasks she gives others and hopes that they will improve.
Q.22 Piyush gets degree of M.Ed. He is confused as he get many job offers. What should he ask himself before take any decision? (Rank in order from most preferred to least preferred way of thinking.) (Source: gtu.ac.in)
(a) Am I interested in this job/profession because the pay is good and the money will help me fulfil my dreams?
(b) Am I interested because this is the type of job where through my work others can benefit?
(c) Am I interested because I am good at teaching and also want to serve people?

Q.23 University organizes an intercollegiate quiz completion. Neha wants to participate in it. But she never participated in such competitions. What would Neha have to do in such situation? What should she think? (Rank in order from most preferred to least preferred way of thinking.) (Source: gtu.ac.in)
1. I will ask my friend to participate too. So that i can feel more secure and confident. 
2. This experience would not be that bad. I will certainly learn something from it.
3. It would not be so easy to participate for me. Still I will do that.
4. I would not know anything about it so i would not try for that. May be I will place myself in
(a) 3-2-1-4 (b) 3-1-2-4 (c) 2-3-1-4 (d) 4-1-2-3

Q.24 When quitting a job, an employee should.................... (Rank in order from most preferred to least preferred way of thinking.) (Source: gtu.ac.in)
(a) When quitting a job, an employee should ensure there is a smooth handover of her work so that there are no hassles for others in her absence.
(b) When quitting a job, a worker should ensure there is a smooth handover of her work so that there are no complications with the management later.

Q.25 Make use of the following words and make a meaningful story with these words.
A wife reveals that his husband is HIV/AIDS positive- Her husband has kept this secret- a wife leaves his husband- a husband dies- similar to this case a
husband reveal that he is HIV positive- husband’s confession to his wife- wife gives support- husband survive with the support of his wife
Write a story considering both cases with the appropriate end. Also give a suitable title to the story. (Write a story in the space given at the last page of this test.)

Q. 26 Take out three lines such a way that it forms three triangles and a rhombus.

Q. 27 Below is an arithmetic problem using matchsticks to form Roman numerals and operators (+, -, and =). The equation is incorrect. See if you can solve it by envisioning a solution in which only one matchstick is moved to create a correct equation. You can only move one matchstick once (but not remove it).

Q. 28 Name out some basic human emotions.

Q. 29 Suppose a new building is being constructing near your home. A couple stays in the first floor of that building to keep watch on the building materials. One night the husband comes drunk and quarrels with his wife. The husband falls down and injures badly. That woman asks everybody for help. Nobody
comes forward to help her. You want to help them but your family members stop you doing that. What would you do in such situation?

Q.30 How would you react in following situation?
1. When you first time appear for an interview
2. When your best friend is in an opponent team and you are likely to lose that match
3. When you catch your younger brother or sister red handed in stealing money at home
4. When you are honoured with an award for best teacher award
Appendix III
Situational Test (Gujarati Version)

પ્રશિક્ષણાર્થી નામ:
જાનું: 
જાની: સ્ત્રી/પરશ્ર:
શિિાર: ગ્રામ્ય/િહેરી:
િાખા: આર્ટસ/સાયન્સ/કોમ્સટ:
િૈક્ષણણક઱ાયકાિ (UG/PG):

૧. પ્રશિક્ષણાર્થી મિત્ર,

નીચે જ્વાન કીલકલ્યાણ- life skills સંબંધિત કેટલાક પ્રશ્નો આપવા છે. તમારી રેખ-ભરેલ ના જ્વાનમાં ઉક્કલાતી સમસ્યાઓ સંબંધિત છે. તમારી સમજ અનુસાર તથા તમે આવી પરિસ્થિતિ માં કેટલી રીતે વિશ્વાસ પ્રેણ આધારે તમારે જાણવામાં આવવાના છે.

જો તમને કોઈ પ્રશ્ન કે લંકા શોન તો તે સંશોધનકારકે ને પ્રશ્ની શકી છો. આ કોઈ પરીક્ષા નથી. તમે આપેલ જવાબો તકને બાંગ્લા રહેશો.

1. Life skills (જ્વાન કીલકલ્યાણ) બેઠે શું?

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2. WHO ક્લાર સ્મારિટ ૧૦ મુખ્ય life skills (જ્વાન કીલકલ્યાણ) કેટલી છે?

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3. તમારા કારાભાષ્ય અને અનકારાભાષ્ય પાસાથો કયા કયા છે?

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4. તમારા જીવનના મુખ્ય ઘટના અને તક્ક્કા કયા છે?

5. એક પાંચ વિશેષણોનું ઉપયોગ કરી તમારું વર્ણન કરો (describe yourself).

6. તમને પરીક્ષા નરીશકની ક્રમને સોફ્ટવેરમાં આવેલ છે. તમે એક વિદ્યાર્થી ઉત્તરસરની વિદ્યાર્થીને પાસ કરતા જુઓ છે. તેમ એક વિદ્યાર્થી ડીપાર્થના અધ્મક્ષ નો ઉત્તર છે. તમે પરીક્ષા સુપ્રીમ્ભેને આ ભાવનાની જાણ કરો છો. પરંતુ તેમ આ ભાવતે
કોઈ ગંબીય રાલા લેવા તાયાર નથી અને તમને પડુ રે બાબત પત્રે આંખ આકા કરવા કહે છે. આ પરિસ્થિતિમાં તમે શું કરશો?

(અ) તમે અંકન બનાવો અને એક નિરીક્ષક તરિકે જે કહે રહ્યા છે તે તમામ યોગ્ય શાર્ટવાહી કરો.

(બ) તમે તેમને ભેલિકપ યેટવાની આપીને લમા દેશો.

(ક) તમે લાખારી અનુવાદો છો અને તમની આ પ્રવૃત્તિને અબગાલ છો. કારણ કિ તે અવાંકનો પુત્ર છે અને તમે તમારી નોકરી બાબતે કોઈ જોખમ લેવા માગતા નથી.

(ડ) અન્ય

તમારા જવાબની સફળતા કરો.

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7. તમને જૂથ પ્રોજેક્ટ આપવામાં આવ્યો છે. જૂથના છ સબયો પીકા યાર સબયો ભૂબ જ કામયોર અને આફાસુ છે. પરંતુ તે યાસ્માથી એક જે જૂથ નો લીડર છે તે ભૂબજ સારી પ્રત્યાશન શીલી ઘરાવે છે. તમે અને બાકી ના સબય ભૂબ મહેનત કરી મહિતની અંકગીર અને ક્રેડૈર કરી પ્રોજેક્ટ પૂર્ણ કરો છો. પ્રેજેક્ટને જયત લીડર એચી રીતે રાજ્ય કર છે કે બાદે કે અઘે જ આફો પ્રોજેક્ટ પૂર્ણ કરો છે. તમને એચી ડર છે કે શિક્ષક તમને માફ નથી આપે. આ પરિસ્થિતિમાં તમે શું કરશો?

(અ) તમે તારલજ વખ્યે પકી છો અને શિક્ષક તથા વખર સમકા જાણી છો કે આ બધી મહેનત તમે કરી છે અને આફો પ્રોજેક્ટ પડા પૂર્ણ તમે જ કરો છે.-

(બ) તમે શિક્ષકને પરસેનતલી મળો છો. અને તમારી કામાતા પુરવાર કરો છો.
(૨) પહેલાં તમને માઈસની વિશાળતા હતી પરંતુ પછી તમને લાગુ કે પ્રોજેક્ટ દરમિયાન તમારું બનાવું કરીને, તમારી કામગીરી સંતોષ અને તમારી ક્ષમતાની આશય થતો છે તે મારે કરતા પછી વધુ મહત્વપૂર્ણ છે અને તેથી આ અભયાસે તમે અખાલ્યો છો.
(૨) તમે આ અનુબાદને એક પરામ અનુબાદ ગઠવી બુલી જશો.
તમારા જવાબની સ્પષ્ટતા કરો:

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૮. તમે જાણે હવે શહેરમાં સારી નોકરી મેળવવા આવી છો. તમે તમારા કાઢ-કાઢીના ઘરે રહી ડીપાય્મ૆ંટ સ્ટોરમાં નોકરી કરો છો. તમારી સાથી તમને એ નોકરી છોડી કેટે સારી નોકરી લેવા અને પોતાનું અલગ ઘર બનાવવા/ બાઉચી લેવા માટે એને ગણ્યહા કરે છે. જેથી તમે એને તમારો ઘાયલ સમય આપી શકો અને તમારું ઘર બનાવવા શકો? આ પરિસ્થિતિમાં તમે શું કરશો?

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૯. ___________ યે અસરકારક પત્યાયન ની પૂર્વ જાણકારી કે? શા માટે?

(અ) સ્પષ્ટતા

(બ) સુસંગતતા
(૯) પૂર્વકાલ/ જગુતતા

(૧૦) પ્રતિ પોષણ

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10.આલખાનપુર ચેઠણ તેમાં ઘૂટો સહિત આખાત સાથે સમજવો.

11. "તમારો મિત્ર પરાશ વરતન દ્વારા કુછી કરે છે પરંતુ તમે એને માક કરો છી કારણે
	તમે જાણો છો કે એ પુષ્પ જ પરાશ ગરિયું થતું થકા રહ્યો છે. " તમારા આ
	વરતન નથી તમે શું કહેશો?

(એ) સહાયનુભવ

(બ) પરાયનનુભવ

(ભ) સ્ટીડિય કરીની ક્રિયા

(૯) મીરહતા

12. નીચેની આપેલ કેસ-સ્ટ્રીડ વાંબો અને વિશેષણ કરો. નીચેનામાંથી કયા શીલકાણનું
	વરતન તમને સૌધી યોજા લાગે છે અને કેન્દ્રું વરતન સૌધી અધોયુષ? શુ માટે?
(ભ) મે. દેસાઈ સાથે ઘોરપાણના તેમના સંગીત વર્ણ માં એક નવું ગીત હામીનીયમના તથે શીમાવાળી રહી હોય છે. અન્ય વિદ્યાર્થીઓની વાતો કરતા શ્રી તેને ગાતા માટે છે અને તેમને વર્ગની છેટલી પાટલી પર જીબી રહવાની આદેશ આપે છે. અને પ્રત્યે ગાવવાનું શાલુ રામે છે.

(ઇ) સુધીર તેના જવબિવસના શિક્ષકને કરીયા દણ સુરેક્ષા છે કે શા માટે આપ છે પ્રકાશસંદેશપણે લાખંથી જોઈયે? સુધીરનો જવબિવસના વિજય પ્રત્યેના આભાગમાં જ દુઃખ તેના શિક્ષક કાવ્ય આપતા વગાને હોય છે કે પ્રુબ જ સારો પ્રજ્ણ છે. તમારાંયાખી શ્રી હું શક્યે કે આપ છે પ્રકાશસંદેશપણે શા માટે લાખંથી જોઈયે? તેના ઓર્થો વર્ગાંયાખી શ્રી હું શક્યે?

(ઝ) મે. દેવે તેના નવમાં ઘોરપાણના અંગે કાલસના વિદ્યાર્થીઓને કહે છે કે તમે બધાની આજ મનથી પ્રુબ વિશ્વસ્ત રહો છે. તમને કાશુ આપાવતું નથી. તમે શ્રી પાડું કાશુ વિદ્યાર્થી શકાતા નથી. તમે બધા નકામાં છો.

(ક) પહેલા દિવસે મે. અંદુચ વિદ્યાર્થીઓને પ્રતાનો પરિપાદ આપતા કહે છે કે કું તમને જજ્બાવી દેવા માંગું કું કે કું પ્રુબ જ કરી શક્યે કું. આચારને શ્રી પાડું જાતનો સમય વેદભાષા વિદાલે મહેનત કરીશું. અને તમને વર્ગમાં ઘાલાં બંધુ શીખવા માગો.

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૧૩. વિદેશનાત્મક વિચાર માં શું સૌથી અગત્યનું છે?

(અ) તાલિકા
(બ) વિદેશનાત્મક વિચારસંગીત
(૫) ઉચ્ચ પુલિંગ
(૬) વિશ્વેશ્વર કશમત
(૭) ભાષા જ શું વૌથી અગત્યનું?

૧૪. તમે સંપન્નમકતા કોને કહો શકો?

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૧૫. સંપન્નમકતાય લાક્ષિકકંતાઓ જણાવો.

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૧૬. તમે કોરેજના અેમિયઅયેડ. ના દમસ છાટરવ્વ માં અે છે વ્યાજનામ આનગી બી.અયેડ. કોરેજના અધ્યાપક તંત્ત્રે પસંકગ પામો છો. અના કે કોરેજ તમને શુંકાશાયી જ માલિક મર્ગ ૩. ૨૫,૦૦૦ ની ઓદાર કરી છે. અને જ તંત્રે તમે સરકારી પ્રાથમિક સાધનમાં પાણી વિવિધ સંયામ તંત્ત્રે ૩. ૩૩૦૦ ના માલિક મર્ગ પસંકગ પામો છો. આપરિસ્થિતિમાં તમે શું મીલાવી લેશો? તમે કે નોકરી પસંક કરશો? શા માટે?
૧૭. સમસ્યા ઉકેલ ના સોફાનો કમમાં ગોઠવો.

સમસ્યા વયાબાધત કરવી, માહિતીની ગોઠવાની કરવી, વ્યૂહરચના ગોઠવવી, માહિતી
શોધવી, પરિસમાન વસાયવા, પ્રચાર પર ટેસ્ટિંગ રાખવી, સમસ્યા ઓળખવી

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૧૮. તમે ગામને થી શહેરમાં ઓકરીશન લીધું છે. તમાં કુદંબ તમારા અસયાસ માટે
નુભવશેનત કરી તમને બલાવે છ. તમે શહેરના વાતાવરણથી અંધકાર ગયા જેટલી તમને
મળી લસંતનતા ભાંધવા માંગો છી. તમે મરોની સોબતમાં પારીમાં જવાનું યાતુ કરો
છી. અને યેમણી અપહેશ મજબ તમારી જતને હાળવાના પ્રવૃતાન કરો છી. તમને દર છે
x તમે આંદુ ના કરો તો તેઓ તમારી સાથે મિલતા તોડી દેશ. આવી 7 ઔેક પઈએ છ.

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તમારી મિશ્રણ તમને આલોખી મીઠું, ડ્રગ, સિગારેટ, વિજ્ઞાતિય સેક્સ વગેરે માટે દફાણ કરે છે. આ પરિસ્થિતિમાં તમે શું કરશો?

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૧૮. િજ્ઞાય પ્રક્રિયા ના સપાટો સમજાવો.

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૨૦. પેનના તમામ સિવાય કાઢી ઉપયોગ કરી લાગે.( ઓછામાં ઓછા ૧૦ સંખ્યામાં ઉપયોગ કરી લાગો.)

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૨૧. ક્રમિત એક રીતથી પ્રોજેક્ટ કી-ઓડીની છે. જ ટીમ-વિકારણ માને છે. તેથી એક લોંગ ટમે પ્રોજેક્ટ હાંદ પર લીધી છે, પરતુ ટીમના બે સાથ્યો અંદરની કસોટીમાં જારલ ઉતરતા નથી. આ ક્ષેત્રમાં તમનો અનુભવ નવો છે. આ પરિસ્થિતિમાં નીચેનામંચની તેઓ વિકલ્પ ક્રમિતની એક સારા લાંદર તરિકેની ઉચ્ચ કાચાની સંકટિવતા દર્શવી છે? (કયાં ટિક માથ કરો)

(એ) ક્રમિત બેલોને ભુગ જ સરળ કામ સોંપ છે. જેથી તેઓ તે કામ આસાનીયી હોય શકે.
(બ) તે બંને બાકીના સાથ્યો જેવા જ કામ સોંપ છે અને સંતત પ્રતિયોગી આપે છે.
(ક) તે બંને બાકી સાથ્યો જેવા જ કામ સોંપ છે. અને જાણ રાખે છે કે તેઓ હાલની સુધારણી લાઇડ શકેલ.

ર૨. પ્રથ્મ એન.એડ. ની રીતી મેળવે છે. તેમની પાસે ધારી કોથાર આવે છે. હોક પાણી નિર્જીવ લેતા પહોંચી ખેલી પોતાની જાતને શું પૂર્ણ શોધાયો?

1. શું એ પડ/હેકે માટે આર્ધક છે?

2. શું એ કામ માટે ધારણ શોધાયો બની ઈચ્છા?

3. શું એ જોવાં સ્વતંત્ર અને વિકૃત માટેની ધારણ તકી છે?

4. શું એ પડ/હેકે માટે એ પણ શોધાયો મહત્વ છે?

ર૩. યુનિવર્સિટી આંતરસિલેખ ક્યુફી સપ્તાહીએ યોજના જરૂરી છે. એક તમામ લાગ લેવા માનો છે. પરતુ તેને આ પુષ્કલની સપ્તાહીમાં કાઢા લાગ લીધી નથી. આ પરિસ્થિતિમાં નેટલે શું કરવું છોડાયો?

(ઇ) વિકાશની યોજના?
(ઈ) વિકાશ જોડાયો?

(૧) "હું મારી મોતને પણ મારી સાથે લાગ લેવા ક્ષક્ષ્ષક. તેથી હું મારી જતની વધુસુરક્ષિત સમજશ."

(૨) "આ અનુભવ મને લાગ્યું નથી હોય. હું ડેક તો ઓછા શીખી જ."
(૩) "મારા માટે માગ લેવો સરક તો નથી જ. તો પછુ કડી ચે કરીશ જ." 

(૪) "માણે આણા લીધે હું મારી જતને હાસ્યપ્રસ્ત પરિવર્તિતમાં મુકિશ. જે માણે હું 
વિલહલ નથી જાણતા ચેનો મારી પ્રણાલ પછુ ના કરવો છે?

(અ) ૨-૩-૧-૪  (બ) ૩-૧-૨-૪  (ભ) ૨-૩-૧-૪  (૫) ૪-૧-૨-૩ 

ર૨. નોકરી છિડતા પહેલા એક કર્મયાદી તરફકે તમે શું કરશો? (ટીક માટ કરો.)

નોકરી છિડતા પહેલા એક કર્મયાદી કે બાદની કરવી છે?

(અ) તેના કામ માટે વીજાને સરકત હું ઈઓ કરવા કંધ કે જેથી તેની ગેરકાળીમાં કેટલા 
પ્રકારની કોઈ મુકડી ન ઉડવી. 

(બ) તેના કામ માટે વીજાને સરકત રીતે હું ઈઓ કરવા કંધ કે જેથી માણવમાં એનેજમેન્ટ 
સાથે કોઈ પદ્ધતા સમસ્તાન ઉડવી. 

ર૩. નીચે આપેલ શબ્દોનો ઉપયોગ કરી અધિપૂર્ણ વાતી રાખો. 

એકપતતિનું પતનીયી છુપાવવા કે તેના એક્ક્સકસ ધારી છે- પતયનું પર છોટલા જત રહેયું - 
પતતિનું મૃત્યુ પામવા - બીજા એવા જ એક દીખામાં પતતી એક્ક્સસ ધારી છે એવી 
પતતિનું પતતી સમક્ક ઘૂમતાં- પતતિનું પતતી ની સેવા કરવા- પતતિનું ધારી જેવું - અને 
દીખામાં દાખલ કરવાનો અંત લખો. અને વાત અને યોગ અંત બદલો. 

ર૫. નીચેની આકૃતિમાં આપેલ ત્રણરાઇકમાં ઇલી યીતે ગોઠલો કે ચાય વભફાજુ 
માળકોણ અને એક ચતુરકોણ રાખા.

301
૨૭. VII-V+II

ઉપરનું સમીકરણ બોઠે છે. અહીં એક દીશાણી નો ઉપયોગ કરી રોમન અંકો માં તથા પ્રક્રિયાઓ (+, -, અને =) દરેક અંક ગાણતીય સમસ્યા રજુ કરી છે. કોઈ પણ એક દીશાણીને મેટીરીટિે ઉભાવીને વીજ જવાબે મુકો કે જેવી સાથુ સમીકરણ રખાવી.
30. નાયની પરિસ્થિતિમાં તમારી લાગણીઓ કેવી રીતે?

1. જથારે તમે નીકળીનો પહેલો ચાંદરબ્યુ આપવા હો ત્યારે....................................................

2. જથારે તમારી તાવ મિત્ર વિરોધી ટીમમાં હોય અને તમે હસી રહી હોવ તયારે ........

3. જથારે તમારા નાના ભાઈ કે બહેન ને ઘરમાં યોરી કારની રોઈ જવા છો તયારે...

4. જથારે તમને બેટે શક્ષણનો શેવોક જદેર વાળુ છે તયારે..........................................................
Appendix IV

Answer key of Situational Test

Total: 70 marks

A.1 What are Life Skills?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life skills are abilities for adaptive and positive behaviour that</td>
<td>2 marks</td>
</tr>
<tr>
<td>facilitate a person to deal effectively with the demands and</td>
<td></td>
</tr>
<tr>
<td>challenges of life.</td>
<td></td>
</tr>
</tbody>
</table>

A.2 Which are core life skills that are essential to live a happy and successful life?

Max: 2.5 marks

For correct identification each carry 0.25 mark

| 1. Self awareness skill            | 6. Decision-making skill                  |
| 2. Interpersonal skill             | 7. Creative Thinking skill                |
| 3. Effective Communication skill   | 8. Coping with stress                     |
| 4. Problem solving skill           | 9. Coping with emotions                   |
| 5. Critical Thinking skill         | 10. Empathy                               |

A.3 Write any two positive and negative aspects of yours? 2 marks
Based on how much they identify their real self

A.4 Write major aim and goal of your life. 2 marks
Based on how much they identify their real self

A.5 Describe yourself. 2 marks
Based on how much they identify their real self

A.6 You are assigned a duty of supervisor in exams. You notice that one of the students who is a son of one of the trustees of your college, is copying from a chit. You catch her doing so. What will you do in this situation?

<table>
<thead>
<tr>
<th>Options (For justification: 1 mark)</th>
<th>Max: 5 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) You will be firm in taking appropriate actions. Call the exam superintendent/authority and ask him to take necessary actions.</td>
<td>4 marks</td>
</tr>
<tr>
<td><strong>Justification</strong>: I will never turn blind eye as Rules are rules and they are equal for all. It will be unfair to other students if he allows him to writing.</td>
<td></td>
</tr>
<tr>
<td>(b) Give him/ her warning once and let him/her allow writing.</td>
<td>3 marks</td>
</tr>
<tr>
<td><strong>Justification</strong>: If happens first time; they would forgive him and allow him to write considering it as his mistake. But it continues for the second time then certain actions would be taken. They will give second chance, instruct him to change his seat and allow him to write.</td>
<td></td>
</tr>
<tr>
<td>(c) Check him/her things and clothes to verify if other chits are with him/her and then allow him for writing.</td>
<td>2 marks</td>
</tr>
<tr>
<td><strong>Justification</strong>: They genuinely showed their concern towards student. They don’t want to let his future ruin as doing so would turns into him/her lose confidence, and will de-motivate him.</td>
<td></td>
</tr>
<tr>
<td>(d) Overlook her activity.</td>
<td>1 mark</td>
</tr>
<tr>
<td><strong>Justification</strong>: They will turn blind eyes as they don’t want to take any risk in job. They are afraid that it would affect</td>
<td></td>
</tr>
</tbody>
</table>
A.7 You are assigned a group project. Six members of your group are very lazy. One of them is a leader of the group and having effective communication power. You and your friend work hard to collect information and complete the field work. But at the time of presentation the leader and those three lazy students take all the credits. Now you are afraid that it would affect your marks. What would you do?

<table>
<thead>
<tr>
<th>Options (For justification: 1 mark)</th>
<th>Max: 5 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) You immediately oppose them and complain the teacher that you worked hard and complete this project.</td>
<td>1 mark</td>
</tr>
<tr>
<td>Justification: You think that it will affect your marks/scores.</td>
<td></td>
</tr>
<tr>
<td>(b) You overlook the activity and forget as a bad experience.</td>
<td>2 marks</td>
</tr>
<tr>
<td>Justification: You think that</td>
<td></td>
</tr>
<tr>
<td>(c) After class you meet the teacher personally and prove your hard work.</td>
<td>3 marks</td>
</tr>
<tr>
<td>Justification: You think that you deserve to get marks as you worked hard and you think your teacher must know who contributed how much.</td>
<td></td>
</tr>
<tr>
<td>(d) You ignore their activity as you believe that your knowledge, work satisfaction and competency developed through this project matters more than marks.</td>
<td>4 marks</td>
</tr>
<tr>
<td>Justification: You think that your knowledge, work satisfaction and competency developed through this</td>
<td></td>
</tr>
</tbody>
</table>
A.8 You migrate from village to city to get a good job. You work in one departmental store near your uncle-aunt’s home and stay with your uncle-aunty. Your partner forces you to leave that job and find a new home on rental so that they can spend more time with each other. What would you do in such situation?

4 marks

<table>
<thead>
<tr>
<th>Options</th>
<th>Max: 4 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) I ask her for time to think over and after sometime if I get good job with more salary, then would do as she wants.</td>
<td>4 marks</td>
</tr>
<tr>
<td>(b) If she shows disagreement to me, I will decide not to keep any relation with her as it’s my survival period and I cannot do as she wants.</td>
<td>3 marks</td>
</tr>
<tr>
<td>(c) Can’t decide</td>
<td>2 marks</td>
</tr>
<tr>
<td>(d) I immediately break the relation after her saying so</td>
<td>1 mark</td>
</tr>
</tbody>
</table>

A.9 What is a prerequisite for ‘effective communication? Why?

Max: 2 marks

<table>
<thead>
<tr>
<th>For Correct response - 1 mark</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Clarity</td>
<td>The communication requires knowledge or awareness about the topic on which the sender wants to communicate. That helps the sender to decide the content of the message, the context, and the channel.</td>
</tr>
<tr>
<td>(b) Compatibility</td>
<td></td>
</tr>
<tr>
<td>(c) Awareness</td>
<td></td>
</tr>
<tr>
<td>(d) Feedback</td>
<td></td>
</tr>
</tbody>
</table>
A.10 Explain the Communication Process with its elements using appropriate diagram.  

4 marks

**Components of Communication Process**

The interpersonal communication process includes many elements namely:

i. The Communicators (a sender and a receiver)

ii. The Message

iii. Noise

iv. Feedback

v. Context

vi. Channel

Any communication requires at least two people involved - the sender and the receiver i.e. communicators. It’s a **two-way process between a sender and a receiver, the process sending message to and from** each other at the same time. Message in the communication process means not only the verbal messages but also the non-verbal messages. Anything that distorts the message or any inconsistencies occurred during communication is called noise. Some of the examples of noise are language barriers, cultural barrier, physical barriers, use of inappropriate body language, lack of attention, and lack of interest. Feedback is the message/response of the receiver in return to the message sent by the sender that let the sender know about accurately the message has been received. Feedback helps the sender to improve the communication by controlling, modifying or repeating the message. The context decides the other components of the communication required.

Communication context here means the place of communication, the status of both the communicators, the time- when to communicate etc. In communication theory, the channel is the physical media through which the message is transmitted from one person to another.

A.11 One of your friends misbehaves with you and hurt you but you forgive him as you know he is passing through bad circumstances in his family.” – When you do so, your behaviour shows __________.  

1 mark

(a) Sympathy

(b) Empathy

(c) Your responsibility as a good citizen
### A.12 Read the case studies below and analyzes them. State which teacher’s behaviour is most appropriate and which teacher’s behaviour most inappropriate? Why?  
4 marks

<table>
<thead>
<tr>
<th>Most appropriate behaviour</th>
<th>Correct Response carry 1 mark</th>
<th>Justification carry 1 mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Sudhir says to his biology teacher in a complaining mode that why should we learn ‘Photosynthesis? Realizing sudhir’s dislike towards biology, he redirects that question to class that can anybody tell why we should learn ‘Photosynthesis’?</td>
<td>Because he accepts the dislikes and emotions of the student, and redirects the question to other students to make him realize that why that topic is important to learn.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most inappropriate Behaviour</th>
<th>Correct Response carry 1 mark</th>
<th>Justification carry 1 mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(c) Mr. Dave tells to his 9th grade students that they disappointed him today very much. You don’t know anything. You cannot think anything. You all are useless.</td>
<td>Because negative reinforces hurt the student’s self-esteem and they demotivate the children to learn. May be they start losing interest in that subject gradually and disliking the teacher.</td>
<td></td>
</tr>
</tbody>
</table>

### A.13 What is less important in Critical Thinking?  
1 mark

(a) Rationality  
(b) Reflective thinking  
(c) Intellectual humility- 1 mark  
(d) Analytical power  
(e) All are equally important
A.14 What is creativity? 2 marks

Creativity is........
- Producing literary work of art
- Expressing old truths in new ways
- Thinking and showing originality
- Discovering new patterns/theory/methodology

A.15 Characteristics of a creative person (Any four): 2 marks
- They are curious.
- They have a sense of humour.
- They are emotionally sensitive.
- They are uninhibited.
- They are imaginative.
- They enjoy challenges.
- They seek out problems and see problems as challenges, they love and enjoy challenges.
- They are optimistic.
- They fantasize.
- They are non-conforming (open).
- They are emotionally sensitive.
- They are able to suspend judgement.
- They have a strong sense of perseverance and do not give up easily.
- They show no signs of frustration when confronted with failure.

A.16 You are selected as lecturer in one of the best B.Ed. colleges in campus interview organized at your college. That job offers you Rs. 25000 per month at the same time you are selected as assistant teacher in one of the government schools with Rs. 5300 monthly pay. What would you do? What decision you would take? Why? Based on their responses 2 marks

A.17 Arrange the steps of problem-solving process. 2 marks
1. Identifying the problem
2. Define the problem
3. Allocating information
4. Organizing information
5. Forming a strategy
6. Evaluating the results
7. Monitoring progress

A.18 Based on their responses

A.19 Stages of Decision Making:

The decision making process requires seven stages to follow:

i. Listing all possible solutions/options.
ii. Setting a time limit and deciding who is responsible for the decision.
iii. Information gathering.
iv. Weighing up the risks involved.
v. Deciding on values, or in other words what is important.
vi. Weighing up the pros and cons of each course of action.
vii. Making the decision.

A.20 Uses of pen other than writing

<table>
<thead>
<tr>
<th>Max: 2.5 marks, each carry 0.25 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To make hole in papers;</td>
</tr>
<tr>
<td>2. To clip your hair in alternative to hair buckle;</td>
</tr>
<tr>
<td>3. Can be used as a pointer;</td>
</tr>
<tr>
<td>4. Can be used as a Book mark;</td>
</tr>
<tr>
<td>5. Can be used as a screw driver to fit cooker handles etc.;</td>
</tr>
<tr>
<td>6. Can be used in mathematics to teach geometrical shapes;</td>
</tr>
<tr>
<td>7. Can be used as clean the hole-gap and remove dirt;</td>
</tr>
<tr>
<td>8. Can be used as a scale to draw lines;</td>
</tr>
</tbody>
</table>
9. It’s cap can be used as combining pages;

10. Can be used to target in the games.

A.21 Kirti is a research project co-ordinator who is deeply engaged with the idea of teamwork. She has taken over a long-term project but finds that the work of two members is not up to the mark as they have not had much experience in that domain. Which of the following options would indicate the highest level of her engagement? 

1 mark

a] She gives them the simplest of tasks so that they can do them easily.

b] She gives them the same kind of tasks she gives others, and gives them constant feedback.

c] She gives them the same kind of tasks she gives others and hopes that they will improve.

A.22 Piyush gets degree of M.Ed. He is confused as he get many job offers. What should he ask himself before take any decision? (Select considering higher order thinking).

<table>
<thead>
<tr>
<th>Options</th>
<th>Max: 3 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Am I interested in this job/profession because the pay is good and the money will help me fulfil my dreams?</td>
<td>1 mark</td>
</tr>
<tr>
<td>(b) Am I interested because this is the type of job where through my work others can benefit?</td>
<td>2 marks</td>
</tr>
<tr>
<td>(c) Am I interested because I am good at teaching and also want to serve people?</td>
<td>3 marks</td>
</tr>
</tbody>
</table>

A.23 University organizes an intercollegiate quiz completion. Neha wants to participate in it. But she never participated in such competitions. What would Neha have to do in such situation? What should she think? (Arrange these sentences from higher order thinking to lower order thinking.)

1 mark
1. I will ask my friend to participate too. So that I can feel more secure and confident.
2. This experience would not be that bad. I will certainly learn something from it.
3. It would not be so easy to participate for me. Still I will do that.
4. I would not know anything about it so I would not try for that. Maybe I will place myself in.
(a) 3-2-1-4 (b) 3-1-2-4 (c) 2-3-1-4 (d) 4-1-2-3

A.24 When quitting a job, an employee.................. (Consider higher order thinking from lower order thinking and Only tick mark ‘✓’ on the appropriate answer.)
(a) When quitting a job, an employee should ensure there is a smooth handover of her work so that there are no hassles for others in her absence.
(b) When quitting a job, a worker should ensure there is a smooth handover of her work so that there are no complications with the management later.

A.25 Criteria for assessment of story

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max: 5 Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>How Creative a (newness of the concept)</td>
<td>1 mark</td>
</tr>
<tr>
<td>Appropriate title</td>
<td>1 mark</td>
</tr>
<tr>
<td>Richness of ideas/content</td>
<td>1 mark</td>
</tr>
<tr>
<td>Coherence-logical order, connectivity</td>
<td>1 mark</td>
</tr>
<tr>
<td>Message</td>
<td>1 mark</td>
</tr>
</tbody>
</table>

A.26

A.27 \(\text{VII=V+II}\)
A.28 Basic emotions: 2 marks
- Fear
- Sadness
- Happiness
- Anger

A.29 I will ask for others help to take him hospital. If others don’t take initiative and my family members too don’t allow me to help them then at least I can call the ambulance to give him immediate help. This could be their response. 2 marks

A.30 How would you react in following situation? 4 marks

<table>
<thead>
<tr>
<th></th>
<th>Max: 4 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When you appear an interview for the first time, you feel anxious/nervous/stressed/confident/worried/excited.</td>
<td>1 mark</td>
</tr>
<tr>
<td>2. When your best friend is in an opponent team and you are likely to lose that match, you feel baffled, envied yet happy/feel proud for your friend.</td>
<td>1 mark</td>
</tr>
<tr>
<td>3. When you catch your younger brother or sister red handed in stealing money at home, you feel shocked, embarrassed, and ashamed/surprised.</td>
<td>1 mark</td>
</tr>
<tr>
<td>4. When you are honoured with an award for best teacher award, you feel proud of your efforts/ feel sense of achievement/gratification/sense of fulfilment.</td>
<td>1 mark</td>
</tr>
</tbody>
</table>
Appendix V

Programme Evaluation Questionnaire

Please answer the following questions honestly and to the best your ability. Make a tick mark ‘✓’ on the appropriate response you think.

1. Were you aware of life skills before you begin the programme? Yes/No? Elloborate.

………………………………………………………………………………
………………………………………………………………………………
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………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………

2. Rate ‘how did you like the Life Skills Programme ‘on five point scale.

<table>
<thead>
<tr>
<th>Very Good</th>
<th>Good</th>
<th>Satisfactory</th>
<th>Not Sure</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Indicate which activities you like most and find most useful to them and which ones least.

<table>
<thead>
<tr>
<th>Activities you like and find most useful</th>
<th>Activities you t like and find least useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

4. Do you think that you were benefited from Life Skills Programme? Say Yes/No. Justify your answer.

………………………………………………………………………………
………………………………………………………………………………
………………………………………………………………………………
5. What are the important life skills that you have learnt?

6. Would you like to make any comments or suggestions; based on your experiences from the Life Skills Programme?

Thank You

Name: .................................................................
Date: .................................................................
Signature: ...............................................................
APPENDIX VI
BLUE PRINT OF THE SITUATIONAL TEST (Final form)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Life Skills Area</th>
<th>Remembering</th>
<th>Understanding</th>
<th>Applying</th>
<th>Analysing</th>
<th>Evaluating</th>
<th>Creating</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
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<td>VSA SA LA</td>
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<td>I</td>
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<td></td>
<td>6.5</td>
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<td>II</td>
<td>SAS</td>
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<td></td>
<td></td>
<td></td>
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<td>6</td>
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<td>IPS</td>
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<td>1(2)</td>
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<td>VII</td>
<td>CTS</td>
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<td>1(2.5) 1(5)</td>
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<tr>
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<tr>
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<td>14.5 4 8</td>
<td>6 2 1 2 9 4 4 8</td>
<td></td>
<td>7.5 70</td>
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<td></td>
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</tbody>
</table>

Note: Numbers inside the bracket indicate marks allotted to each item and numbers outside the bracket indicate number of items.