4. METHODOLOGY
4. METHODOLOGY

4.1. Need for Study:

According to 2001 census India's population is growing fast at the rate of 1.2% and by the year 2026 the population in the age group of 5-14 years will be 222 million. Presently 35.4% of population falls under the age group of 0-14 years. The all India figures for 10-14 year age population is 11.7%, the figure for Karnataka is similar at 11.1%. In the next 25 years Karnataka's population is projected to grow by 20-30%, by the year 2011 25.4% of its population will under the age group of 0-14 (Census Report 2006). Though percentage seems small, in absolute terms, they make up huge numbers. Hence designing and implementing intervention for adolescents ensure healthy, safe and brighter future for the individuals, society and the nation at large.

There is growing recognition that many adolescents are not sufficiently prepared to deal with the demands of modern society. Traditional mechanisms for passing on life skills (e.g. family, community role models, and cultural traditions) may no longer be adequate in many communities. The reasons given for this include the weakening of traditional support structures as urbanization breaks up the extended family. There is also the power of the media in shaping the development of youth and the rapid social changes that make the lives of young people, their expectations, values and opportunities so different from that of their parents. In addition, adolescents face increasing risks to their health and development, such as HIV/AIDS, drug abuse, stress, violence and suicide.
Adolescents with high psychosocial competence are able to achieve and maintain optimal psychological and social functioning and well-being as well as deal effectively with demands and challenges of everyday life. They have a sense of identity and self-worth, sound family and peer relationships, an ability to be productive and to learn, capacity to tackle developmental challenges and use cultural resources to maximize growth. Moreover, high psychosocial competence of adolescents is crucial for their active social and economic participation. To achieve this, they need to be trained in all the Lifeskills.

WHO (2001a) states that, it is clear that schools remain a crucial social institution for the education of children and adolescents in preparation for life. But they need to be more involved in a broader educational role fostering healthy psychological, social and emotional development of pupils. The school is expected to impart skills that are needed for its socialization of young people, to prepare young people for a productive and fulfilling life. However, the overemphasis on traditional academic subjects has resulted in many schools not being able to fulfill this role.

Hence, the present study was designed with two fold objectives stated below;

1. To study experimentally the impact of life skills education on the enhancement of psychosocial competence in adolescents.

2. To determine the influence of some of the demographic factors such as gender, number of siblings, order of birth, type of family, fathers’ education, occupation and income, as well as health problems of adolescents significantly influence their psychosocial competence.
4.2. Research Questions:

This study endeavours to investigate the research problem which consists of following questions:

1. Do the adolescents of experimental group differ significantly from the adolescents of control group in their psychosocial competence due to life skills intervention?

2. Do the demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income, health problems of the adolescents significantly influence their psychosocial competence?

4.3. Hypotheses:

The design and objective of the study makes it necessary for hypotheses formulation from different angles such as comparing the psychosocial competence within the groups and between the groups at three phases of testing i.e. at pre test, post test (after administration of intervention) and post post test phase (a time interval of 3 months after post test).

Hence, numerous hypotheses are formulated for observing the difference in psychosocial competence at pre test, post test and post post test phases. Figure no. 4.01 illustrates the groups and three phases of testing.
4.3.1. Control Group:

4.3.1.1. Comparison within Control Group from Pre Test to Post Test Phase:

\( H_{a_1} \) Adolescents of control group do not differ significantly in all ten life skills and Overall psychosocial competence from pre test to post test phase

Further, from \( H_{a_1} \) specific hypotheses are drawn and stated below;

\( H_{a_{1,1}} \) Adolescents of control group do not differ significantly in their Problem solving skill from pre test to post test phase

\( H_{a_{1,2}} \) Adolescents of control group do not differ significantly in their Decision making skill from pre test to post test phase

\( H_{a_{1,3}} \) Adolescents of control group do not differ significantly in their Critical thinking skill from pre test to post test phase
Ha$_{1.4}$ Adolescents of control group do not differ significantly in their Creative thinking skill from pre test to post test phase

Ha$_{1.5}$ Adolescents of control group do not differ significantly in their Empathy skill from pre test to post test phase

Ha$_{1.6}$ Adolescents of control group do not differ significantly in their Self awareness skill from pre test to post test phase

Ha$_{1.7}$ Adolescents of control group do not differ significantly in their Coping with emotions skill from pre test to post test phase

Ha$_{1.8}$ Adolescents of control group do not differ significantly in their Coping with stress skill from pre test to post test phase

Ha$_{1.9}$ Adolescents of control group do not differ significantly in their Interpersonal relation skill from pre test to post test phase

Ha$_{1.10}$ Adolescents of control group do not differ significantly in their Effective communication skill from pre test to post test phase

Ha$_{1.11}$ Adolescents of control group do not differ significantly in their Overall psychosocial competence from pre test to post test phase

4.3.1.2. Comparison within Control Group from Post Test To Post Post Test Phase:

Ha$_2$ Adolescents of control group do not differ significantly in all ten life skills and overall psychosocial competence from post test to post post test phase

From the above hypothesis specific hypotheses are drawn and stated below;

Ha$_{2.1}$ Adolescents of control group do not differ significantly in their Problem solving skill from post test to post post test phase

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Ha2.2 Adolescents of control group do not differ significantly in their Decision making skill from post test to post post test phase

Ha2.3 Adolescents of control group do not differ significantly in their Critical thinking skill from post test to post post test phase

Ha2.4 Adolescents of control group do not differ significantly in their Creative thinking skill from post test to post post test phase

Ha2.5 Adolescents of control group do not differ significantly in their Empathy skill from post test to post post test phase

Ha2.6 Adolescents of control group do not differ significantly in their Self awareness skill from post test to post post test phase

Ha2.7 Adolescents of control group do not differ significantly in their Coping with emotions skill from post test to post post test phase

Ha2.8 Adolescents of control group do not differ significantly in their Coping with stress skill from post test to post post test phase

Ha2.9 Adolescents of control group do not differ significantly in their Interpersonal relation skill from post test to post post test phase

Ha2.10 Adolescents of control group do not differ significantly in their Effective communication skill from post test to post post test phase

Ha2.11 Adolescents of control group do not differ significantly in their overall psychosocial competence from post test to post post test phase
4.3.1.3. Comparison within Control Group from Pre Test To Post Post Test Phase:

Ha₃ Adolescents of control group do not differ significantly in all ten life skills and Overall psychosocial competence from pre test to post post test phase

From the above stated hypothesis, following specific hypotheses are drawn and stated below;

Ha₃.1 Adolescents of control group do not differ significantly in their Problem solving skill from pre test to post post test phase

Ha₃.2 Adolescents of control group do not differ significantly in their Decision making skill from pre test to post post test phase

Ha₃.3 Adolescents of control group do not differ significantly in their Critical thinking skill from pre test to post post test phase

Ha₃.4 Adolescents of control group do not differ significantly in their Creative thinking skill from pre test to post post test phase

Ha₃.5 Adolescents of control group do not differ significantly in their Empathy skill from pre test to post post test phase

Ha₃.6 Adolescents of control group do not differ significantly in their Self awareness skill from pre test to post post test phase

Ha₃.7 Adolescents of control group do not differ significantly in their Coping with emotions skill from pre test to post post test phase

Ha₃.8 Adolescents of control group do not differ significantly in their Coping with stress skill from pre test to post post test phase

Ha₃.9 Adolescents of control group do not differ significantly in their Interpersonal relation skill from pre test to post post test phase

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4.3.2. Experimental Group:

4.3.2.1. Comparison within Experimental Group from Pre Test To Post Test Phase:

Ha₄ Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence in post test compared to pre test phase

Specific hypotheses are also drawn from the above hypothesis and stated below;

Ha₄.₁ Adolescents in experimental group will have significantly higher Problem solving skill in post test compared to pre test phase

Ha₄.₂ Adolescents in experimental group will have significantly higher Decision making skill in post test compared to pre test phase

Ha₄.₃ Adolescents in experimental group will have significantly higher Critical thinking skill in post test compared to pre test phase

Ha₄.₄ Adolescents in experimental group will have significantly higher Creative thinking skill in post test compared to pre test phase

Ha₄.₅ Adolescents in experimental group will have significantly higher Empathy skill in post test compared to pre test phase
\textbf{Ha}_{4.6} \text{ Adolescents in experimental group will have significantly higher Self awareness skill in post test compared to pre test phase}

\textbf{Ha}_{4.7} \text{ Adolescents in experimental group will have significantly higher Coping with emotions skill in post test compared to pre test phase}

\textbf{Ha}_{4.8} \text{ Adolescents in experimental group will have significantly higher Coping with stress skill in post test compared to pre test phase}

\textbf{Ha}_{4.9} \text{ Adolescents in experimental group will have significantly higher Interpersonal relation skill in post test compared to pre test phase}

\textbf{Ha}_{4.10} \text{ Adolescents in experimental group will have significantly higher Effective communication skill in post test compared to pre test phase}

\textbf{Ha}_{4.11} \text{ Adolescents in experimental group will have significantly higher Overall psychosocial competence in post test compared to pre test phase}

\textbf{4.3.2.2. Comparison within Experimental Group from Post Test to Post Post Test Phase:}

\textbf{Ha}_{5} \text{ Adolescents in experimental group will differ significantly in all ten life skills and Overall psychosocial competence from post test to post post test phase}

From the above hypothesis, following specific hypothesis are drawn and stated below;

\textbf{Ha}_{5.1} \text{ Adolescents in experimental group will differ significantly in Problem solving skill from post test to post post test phase}

\textbf{Ha}_{5.2} \text{ Adolescents in experimental group will differ significantly in Decision making skill from post test to post post test phase}

\textbf{Ha}_{5.3} \text{ Adolescents in experimental group will differ significantly in Critical thinking skill from post test to post post test phase}
Ha_{5.4} Adolescents in experimental group will differ significantly in Creative thinking skill from post test to post post test phase

Ha_{5.5} Adolescents in experimental group will differ significantly in Empathy skill from post test to post post test phase

Ha_{5.6} Adolescents in experimental group will differ significantly in Self awareness skill from post test to post post test phase

Ha_{5.7} Adolescents in experimental group will differ significantly in Coping with emotions skill from post test to post post test phase

Ha_{5.8} Adolescents in experimental group will differ significantly in Coping with stress skill from post test to post post test phase

Ha_{5.9} Adolescents in experimental group will differ significantly in Interpersonal relation skill from post test to post post test phase

Ha_{5.10} Adolescents in experimental group will differ significantly in Effective communication skill from post test to post post test phase

Ha_{5.11} Adolescents in experimental group will differ significantly in Overall psychosocial competence from post test to post post test phase

4.3.2.3. **Comparison within Experimental Group from Pre Test to Post Post Test Phase:**

Ha_{6} Adolescents in experimental group will have significantly higher all ten life skills and overall psychosocial competence in post post test compared to pre test phase

Further some specific hypotheses are drawn and stated below;

Ha_{6.1} Adolescents in experimental group will have significantly higher Problem solving skill in post post test compared to pre test phase
Ha6.2 Adolescents in experimental group will have significantly higher Decision making skill in post post test compared to pre test phase

Ha6.3 Adolescents in experimental group will have significantly higher Critical thinking skill in post post test compared to pre test phase

Ha6.4 Adolescents in experimental group will have significantly higher Creative thinking skill in post post test compared to pre test phase

Ha6.5 Adolescents in experimental group will have significantly higher Empathy skill in post post test compared to pre test phase

Ha6.6 Adolescents in experimental group will have significantly higher Self awareness skill in post post test compared to pre test phase

Ha6.7 Adolescents in experimental group will have significantly higher Coping with emotions skill in post post test compared to pre test phase

Ha6.8 Adolescents in experimental group will have significantly higher Coping with stress skill in post post test compared to pre test phase

Ha6.9 Adolescents in experimental group will have significantly higher Interpersonal relations skill in post post test compared to pre test phase

Ha6.10 Adolescents in experimental group will have significantly higher Effective communication skill in post post test compared to pre test phase

Ha6.11 Adolescents in experimental group will have significantly higher Overall psychosocial competence in post post test compared to pre test phase

4.3.3. Comparison Between Experimental Group And Control Group:

4.3.3.1. Pre Test Phase:
Adolescents in experimental group and those in control group do not differ significantly from each other in all ten life skills and Overall psychosocial competence at pre test phase

Further some specific hypothesis are drawn and stated below;

Ha$_7$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Problem solving skill at pre test phase

Ha$_{7.1}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Decision making skill at pre test phase

Ha$_{7.2}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Critical thinking skill at pre test phase

Ha$_{7.3}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Creative thinking skill at pre test phase

Ha$_{7.4}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Empathy skill at pre test phase

Ha$_{7.5}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Self awareness skill at pre test phase

Ha$_{7.6}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Coping with emotions skill at pre test phase

Ha$_{7.7}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Coping with stress skill at pre test phase

Ha$_{7.8}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Interpersonal relations skill at pre test phase

Ha$_{7.9}$ Adolescents in experimental group and those in control group do not differ significantly from each other in their Interpersonal relations skill at pre test phase
H_{a_{7,10}} Adolescents in experimental group and those in control group do not differ significantly from each other in their Effective communication skill at pre test phase

H_{a_{7,11}} Adolescents in experimental group and those in control group do not differ significantly from each other in their Overall psychosocial competence at pre test phase

4.3.3.2. Post Test Phase:

H_{a_{8}} Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence than adolescents in control group at post test phase

From the above hypothesis some specific hypotheses are also drawn and stated below;

H_{a_{8,1}} Adolescents in experimental group will have significantly higher Problem solving skill than adolescents in control group at post test phase

H_{a_{8,2}} Adolescents in experimental group will have significantly higher Decision making skill than adolescents in control group at post test phase

H_{a_{8,3}} Adolescents in experimental group will have significantly higher Critical thinking skill than adolescents in control group at post test phase

H_{a_{8,4}} Adolescents in experimental group will have significantly higher Creative thinking skill than adolescents in control group at post test phase

H_{a_{8,5}} Adolescents in experimental group will have significantly higher Empathy skill than adolescents in control group at post test phase

H_{a_{8,6}} Adolescents in experimental group will have significantly higher Self awareness skill than adolescents in control group at post test phase
Ha8.7 Adolescents in experimental group will have significantly higher Coping with emotions skill than adolescents in control group at post test phase

Ha8.8 Adolescents in experimental group will have significantly higher Coping with stress skill than adolescents in control group at post test phase

Ha8.9 Adolescents in experimental group will have significantly higher Interpersonal relations skill than adolescents in control group at post test phase

Ha8.10 Adolescents in experimental group will have significantly higher Effective communication skill than adolescents in control group at post test phase

Ha8.11 Adolescents in experimental group will have significantly higher Overall psychosocial competence than adolescents in control group at post test phase

4.3.3.3. Post Post Test Phase:

Ha9 Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence than adolescents in control group at post post test phase

From the above hypothesis, some specific hypotheses are drawn and stated below;

Ha9.1 Adolescents in experimental group will have significantly higher Problem solving skill than adolescents in control group at post post test phase

Ha9.2 Adolescents in experimental group will have significantly higher Decision making skill than adolescents in control group at post post test phase

Ha9.3 Adolescents in experimental group will have significantly higher Critical thinking skill than adolescents in control group at post post test phase
Ha₉.₄ Adolescents in experimental group will have significantly higher Creative thinking skill than adolescents in control group at post post test phase

Ha₉.₅ Adolescents in experimental group will have significantly higher Empathy skill than adolescents in control group at post post test phase

Ha₉.₆ Adolescents in experimental group will have significantly higher Self awareness skill than adolescents in control group at post post test phase

Ha₉.₇ Adolescents in experimental group will have significantly higher Coping with emotions skill than adolescents in control group at post post test phase

Ha₉.₈ Adolescents in experimental group will have significantly higher Coping with stress skill than adolescents in control group at post post test phase

Ha₉.₉ Adolescents in experimental group will have significantly higher Interpersonal relations skill than adolescents in control group at post post test phase

Ha₉.₁₀ Adolescents in experimental group will have significantly higher Effective communication skill than adolescents in control group at post post test phase

Ha₉.₁₁ Adolescents in experimental group will have significantly higher Overall psychosocial competence than adolescents in control group at post post test phase

4.3.4. Influence of Demographic Factors on Psychosocial Competence of Adolescents:

Ha₁₀ The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their all ten life skills and overall psychosocial competence

From the above hypothesis, some specific hypotheses are drawn and stated below;
The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Problem solving skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Decision making skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Critical thinking skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Creative thinking skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Empathy skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Self awareness skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Coping with emotions skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Coping with stress skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father's education, occupation and income and health problems of adolescents significantly influence their Interpersonal relations skill
The demographic factors such as gender, number of siblings, order of birth, type of family, father’s education, occupation and income and health problems of adolescents significantly influence their Effective communication skill

The demographic factors such as gender, number of siblings, order of birth, type of family, father’s education, occupation and income and health problems of adolescents significantly influence their Overall psychosocial competence

4.4. Research Design:

The schools for experimental and control group were chosen through purposive sampling method and they match each other in total profile. The present study involves Quasi-experimental design which according to Varkevisser, Pathmanathan and Brownlee, (1991) has mix of experimental and non experimental design characteristics. Two groups of adolescents i.e. experimental group and control group, from different schools are administered same instrument with intervention (3 months) for experimental group in between, over a period of six months to assess the changes in psychosocial competence.
Two schools fit the criteria and also granted permission to conduct the study. G.V.Joshi Rotary English Medium High School, Hubli, Karnataka State, was chosen as experimental group and Nirmala Thakkar High School, Hubli, Karnataka State was chosen as control group. The composition of the groups has been illustrated in the table given above.
Table No 4.01: Distribution of Sample in Experimental and Control Groups According to Gender and Class of Study

<table>
<thead>
<tr>
<th>Group</th>
<th>Class</th>
<th>Boys-Actually Administered</th>
<th>Boys-Finally Retained</th>
<th>Girls-Actually administered</th>
<th>Girls-Finally Retained</th>
<th>Total-Actually Administered</th>
<th>Total-Finally Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment Group</td>
<td>8th Std.</td>
<td>106</td>
<td>22</td>
<td>72</td>
<td>27</td>
<td>178</td>
<td>49</td>
</tr>
<tr>
<td>(G.V.Joshi Rotary</td>
<td></td>
<td>9th Std.</td>
<td>91</td>
<td>26</td>
<td>63</td>
<td>26</td>
<td>154</td>
</tr>
<tr>
<td>English Medium High School)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>48</td>
<td>135</td>
<td>53</td>
<td>332</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Control Group(Nirmala Thakkar</td>
<td>8th Std.</td>
<td>89</td>
<td>19</td>
<td>80</td>
<td>29</td>
<td>169</td>
<td>48</td>
</tr>
<tr>
<td>High School)</td>
<td></td>
<td>9th Std.</td>
<td>88</td>
<td>29</td>
<td>79</td>
<td>24</td>
<td>167</td>
</tr>
<tr>
<td>Total</td>
<td>177</td>
<td>48</td>
<td>159</td>
<td>53</td>
<td>336</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>374</td>
<td>96</td>
<td>294</td>
<td>106</td>
<td>668</td>
<td>202</td>
<td></td>
</tr>
</tbody>
</table>

4.5. Data Collection:

The schools in the Hubli, Dharwad District, Karnataka State were surveyed and two schools, Nirmala Thakkar High School, and G.V.Joshi Rotary English Medium High School, were found suitable for the study. They were comparable with each other in total profile i.e. strength, medium of instruction, location, teacher-student ratio, students background and general culture of the school. The managements of the both the schools were approached for permission to conduct the study after explaining its significance. Management and Head master of the G.V.Joshi Rotary English Medium School showed keen interest in the programme and readily gave the consent to be chosen as experimental group. Hence Nirmala Thakkar High School was chosen as control group. Data was collected from both the groups i.e. the control group and the experimental group over a period of six months from June 2006. The schedule followed for data collection is illustrated in table no. 4.02.
4.6. Sample:

The researcher chose two samples from two different schools for inclusion in the study. They were assessed on the following inclusion exclusion criteria before selection for final study.

4.6.1. Inclusion Criteria:

• Children studying in 8th and 9th standard

• Children having both parents living together

• Children who attend all the ten life skills education intervention

• Children of both sexes will be included in the study

• Children who are willing to participate in the intervention programme.

4.6.2. Exclusion Criteria:

• Children studying in primary and middle school

• Children who are unwilling to participate

• Children who miss one or more than one module of life skills intervention

• Children who were absent during any of the three phases of testing.

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Table No. 4.02: Data Collection Schedule for Control and Experimental Groups

<table>
<thead>
<tr>
<th>School</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Post Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Experimental Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.6.3. Experimental Group:

G.V. Joshi Rotary English Medium High School, Hubli, Dharwad District, Karnataka State, was chosen as experimental group. The data collection was begun in the second week of June 2006 after the schools reopened. The Head master gave one class for each section in a week to the researcher to administer tests and implement intervention. The duration of the class allotted was forty minutes. The profile of all sections of eighth and ninth standard is given in the table below. In the first week the researcher conducted pre test on all sections of the 8th and 9th standard.

Table No. 4.03: Distribution of Adolescents in Experimental Group According to Their Class And Gender

<table>
<thead>
<tr>
<th>Class and Section</th>
<th>Boys Actually administered</th>
<th>Boys Finally retained</th>
<th>Girls Actually administered</th>
<th>Girls Finally Retained</th>
<th>Total Actually administered</th>
<th>Total Finally retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th 'A'</td>
<td>37</td>
<td>5</td>
<td>20</td>
<td>8</td>
<td>57</td>
<td>13</td>
</tr>
<tr>
<td>8th 'B'</td>
<td>33</td>
<td>7</td>
<td>18</td>
<td>4</td>
<td>41</td>
<td>11</td>
</tr>
<tr>
<td>8th 'C'</td>
<td>22</td>
<td>5</td>
<td>18</td>
<td>9</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>8th 'D'</td>
<td>24</td>
<td>5</td>
<td>16</td>
<td>6</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>22</td>
<td>72</td>
<td>27</td>
<td>178</td>
<td>49</td>
</tr>
<tr>
<td>9th 'A'</td>
<td>36</td>
<td>6</td>
<td>22</td>
<td>9</td>
<td>58</td>
<td>15</td>
</tr>
<tr>
<td>9th 'B'</td>
<td>29</td>
<td>12</td>
<td>20</td>
<td>12</td>
<td>49</td>
<td>24</td>
</tr>
<tr>
<td>9th 'C'</td>
<td>26</td>
<td>8</td>
<td>21</td>
<td>5</td>
<td>47</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>26</td>
<td>63</td>
<td>26</td>
<td>154</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>48</td>
<td>135</td>
<td>53</td>
<td>332</td>
<td>101</td>
</tr>
</tbody>
</table>

4.6.4. Control Group:

Nirmala Thakkar High school, Shanthi Colony (North), Hubli, Dharwad District, Karnataka State, was chosen as control group. Adolescents belonging to all the sections of 8th and 9th standard were included in the control group. The following table illustrates the number of boys and girls in all sections of both the classes.
Table no. 4.04: Distribution of Adolescents in Control Group According to Their Class and Gender

<table>
<thead>
<tr>
<th>Class and Section</th>
<th>Boys Actually administered</th>
<th>Boys Finally Retained</th>
<th>Girls Actually administered</th>
<th>Girls Finally Retained</th>
<th>Total Actually administered</th>
<th>Total Finally Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th 'A'</td>
<td>22</td>
<td>3</td>
<td>22</td>
<td>7</td>
<td>44</td>
<td>10</td>
</tr>
<tr>
<td>8th 'B'</td>
<td>22</td>
<td>7</td>
<td>20</td>
<td>8</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>8th 'C'</td>
<td>21</td>
<td>4</td>
<td>19</td>
<td>9</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>8th 'D'</td>
<td>24</td>
<td>5</td>
<td>19</td>
<td>5</td>
<td>43</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>19</td>
<td>80</td>
<td>29</td>
<td>169</td>
<td>48</td>
</tr>
<tr>
<td>9th 'A'</td>
<td>23</td>
<td>6</td>
<td>22</td>
<td>4</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>9th 'B'</td>
<td>20</td>
<td>5</td>
<td>20</td>
<td>9</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>9th 'C'</td>
<td>22</td>
<td>8</td>
<td>18</td>
<td>5</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>9th 'D'</td>
<td>23</td>
<td>10</td>
<td>19</td>
<td>6</td>
<td>42</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>29</td>
<td>79</td>
<td>24</td>
<td>167</td>
<td>53</td>
</tr>
<tr>
<td>Grand total</td>
<td>177</td>
<td>48</td>
<td>159</td>
<td>53</td>
<td>336</td>
<td>101</td>
</tr>
</tbody>
</table>

Similar to the experimental group, data was collected three times over a period of six months as already illustrated in the table no 4.02. However, intervention was not conducted for this group. The data was entered separately for the experimental and control group. The responses for the demographic data sheet were coded and entered into the data sheet along with the responses for the psychosocial competence scale.

4.7. Tools Used:

4.7.1. Psychosocial Competence Scale by Ajitha.D and Vijaylaxmi.A.A:

This tool was developed to suit the present sample and research design. It consists of 100 items, focusing on ten different life skills, i.e. each skill has ten items. There are 75 positively keyed items and 25 negatively keyed items. Each item has been allotted five response categories ranging from '1' very much applies to me to '5' does not apply to me at all. The positively keyed items are given the assigned score but negatively keyed items are scored in reverse order. Therefore, the
lower score indicates higher competence and vice versa. The scale as a whole has the reliability coefficients Cronbach's alpha=0.88, Spearma-Brown coefficient=0.71 and Guttman's split half coefficient=0.71 (P<0.001). Similarly the concurrent validity of whole scale ranges from 0.38-0.76 (P<0.001).

Demographic Data Sheet:
Information about name, gender, class of study, number of siblings, order of birth, parent's educational qualifications, occupation, income, type of family and many other demographic related information was obtained from the respondents in the form of responses to the data sheet given to each individual. Refer appendix A1 for demographic data sheet.

4.8. Statistical Analyses of Data:
The data collected from both experimental and control group were thoroughly screened. In case of experimental group only adolescents who were present for all three phases of testing as well as ten sessions of life skills intervention were retained. Among them only the response sheets which were complete in all respects were retained and the remaining ones were omitted. Hence, a matching set of adolescents were included in the control group. Further scoring was done for the responses obtained from each subject. The statistical tests that were employed to test the formulated hypotheses are described below.
4.8.1. Frequency Distribution:

Frequency distribution was drawn for raw scores of each dimension and overall score of psychosocial competence for both control and experimental groups. Means and standard deviations were computed.

4.8.2. Statistical Techniques Applied:

The following statistical techniques were applied to analyze the scores obtained to verify the hypotheses and also their specific forms.

- Paired ‘t’ test for dependent samples
- ‘t’ test for independent samples
- Stepwise Multiple Regression Analysis

4.8.2.1. Paired ‘t’ Test for Dependent Samples

Paired ‘t’ for dependant samples is applied when the same sample is studied more than once to compare their means. Hence, the paired observations mean difference and standard deviation is calculated for computing the test statistic ‘t’. In the present study, this test was applied for the following

- Comparison within control group across three phases of testing i.e. pre test to post test (Ha1.1 to Ha1.11), post test to post post test (Ha2.1 to Ha2.11), and pre test to post post test (Ha3.1 to Ha3.11)
- Comparison within experimental group across three phases of testing i.e. pre test to post test (Ha4.1 to Ha4.11), post test to post post test (Ha5.1 to Ha5.11) and pre test to post post test (Ha6.1 to Ha6.11)
4.8.2.2. 't' Test for Independent Samples

't' test for independent samples is applied for comparison of means between two different samples. In the present study this test was applied for comparison between the two groups—control and experimental across three phases of testing. The following are the details:

- Comparison between experimental and control groups at pre test (H_{a7.1} to H_{a7.11})
- Comparison between experimental and control groups at post test phase (H_{a8.1} to H_{a8.11})
- Comparison between experimental and control groups at post post test phase (H_{a9.1} to H_{a9.11})

4.8.2.3. Stepwise Multiple Regression Analysis:

This technique is applied for determining the relationship of multiple predictors on one side and a single criterion on the other. In this method the regression of Y (dependent variable) on all independent variables (X_1, X_2, X_3, ..., X_n) is calculated.

In the present research, this analysis was performed to study the influence of demographic factors such as gender, order of birth, type of family, currently living with whom, father's education, occupation and income as well as health problems of adolescents on their life skills and Overall psychosocial

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^3^ The variable that explains the greatest amount of variance in the dependent variable will enter first; the variable that explains the greatest amount of variance in conjunction with the first will enter second and so on. In other words, the variable that explains the greatest amount of variance unexplained by the variables already in the equation enter the equation at each step. And one or more of the variable(s) may never be entered into the regression equation if the statistical criterion is not met.” (Nie, 1975; P-175)
competence. The specific hypotheses $H_{a_{10,1}}$ to $H_{a_{10,11}}$ of the main hypothesis $H_{a_{10}}$ were tested and verified using this analysis.