### CHAPTER - IV

**METHODOLOGY**

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CHAPTER - IV

METHODOLOGY

“Research is considered to be more formal, systematic, intensive process of carrying on the scientific method of analysis. It involves a more systematic structure of investigation usually resulting in some sort of formal record of procedures and a report of results or conclusions”.

- John W. Best (2007)

4.1. INTRODUCTION

The entire research plan is reflected in this chapter entitled methodology. It describes the method used by the researcher, the population of the project, the size of the sample, how they are selected, the variables and dimensions used, the reliability of the instruments selected and the statistical procedures used in the analysis.

For the successful conduct of any research, suitable methodology with specific operational steps and well-constructed tools are necessary. Several research methods and procedures are known for the systematic way of completing a research work. The choice of the research method depends upon the nature of the problem selected and the data necessary for the solution. Methodology enables the investigator to look at the problem in a meaningful and orderly way. Methodology comprises selection of the sources of data, collection of data for the purpose of research and various designs and techniques for analyzing the data. The data are analyzed using statistical techniques. Methodology helps the researcher to evaluate the validity and reliability of the findings. Therefore, methodology becomes necessary for any type of investigation.
4.2. METHODOLOGY

Research methods are very important in a research process. A pre-planned and well described method will provide a researcher a scientific and feasible plan for confronting and solving the problem under investigation. The methods of sociological research are applicable to study related to education are as follows.

1. Historical Method
2. Experimental Method
3. Genetic Method
4. Case Study
5. Survey Method

Out of these methods, the investigator has adopted Experimental Method in the view of the objectives of the study. Single group pre-test post-test design is chosen for experimental method. In educational research, experimental method is the application and adaptation of the classical method of the science laboratory where elements manipulated and effects observed can be controlled. It has been effectively applied within non-laboratory settings such as classrooms, where significant factors or variables can be controlled to some degree. Experimental method clarified clearly the effectiveness of specific strategies through which the behavioural change of the students is visualized therefore; the researcher has selected the “Experimental Method”.
4.3. EXPERIMENTAL METHOD

The best method indeed the fully compelling method of establishing caution is to conduct a carefully designed experiment in which the effects of possible lurking variables are controlled. To experiment means to treat ‘x’ with some selected strategies and observe the changes. In conducting an experiment, the researcher dedicates great care to the manipulation and control of variables to the observation and measurement of results. It is through such a research method that the researcher can obtain the most convincing evidence of the effect that one variable over the other. The experimental method is the only method of research that can truly test hypotheses concerning cause and effect relationships. It represents the most valid approach to the solution of educational problems, both practical and theoretical and to the advancement of education as a care.

The experimental method is a systematic and scientific approach to research in which the researcher manipulates one or more variables and controls and measures any change in other variables. Experimental research is often used where;

- There is time priority in a causal relationship (cause precedes effect).
- There is consistency in a causal relationship (a cause will always lead to the same effect).
- The magnitude of the correlation is great.

Characteristic of an Experimental Method

There are three essential ingredients with which the scientist is actively involved in the conduct of an experiment that is, control, manipulation and observation.
Control

Control is essence of the experimental method. Without control, it is impossible to evaluate unambiguously the effects of an independent variable. The purpose of control in an experiment is to arrange a situation in which the effect of variables can be established.

Manipulation

The manipulation of a variable refers to a deliberate operation performed by the experimenter. In educational research and other behavioural sciences, the manipulation of a variable takes characteristics from which the experimenter imposes a predetermined set of varied conditions on the subject. One may manipulate a single variable or a number of variables simultaneously.

Observation

In experimentation, one interested in the effect of the manipulation of the independent variable on a response variable. Observations are made with respect to some characteristics of the behaviour of the subjects employed in research. These observations, which are quantitative in nature if possible, are the dependent variable.

4.4. RESEARCH DESIGN

A research design is the arrangement of condition for collection and analysis of data in manner that aims to combine relevance to the research purpose with economy in procedure. In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. This research has been carried out in experimental method.
4.5. EXPERIMENTAL DESIGN

The Experimental designs are;

1. The single group design
2. The parallel group design
   a. Equated by random sample
   b. Equated by mean score
   c. Equated by matched pairs
   d. Co-twin method
3. Two equivalent groups.

Single Group Design Procedures

Single group--- Pre-test--- Treatment--- Post-test

4.6 VARIABLES IN THE STUDY

The present study is an experimental study. Variables involved in the study are as follows.

**Independent Variable:** The independent variable of this study is the application of different teaching methods such as brainstorming, storytelling, role play, discussion and debates

**Dependent Variable:** In the present study the dependent variables are students’ progress in the development of life skills as measured by Pre and Post Test Life skill assessment scale.

**Demographic Variables:** In this study gender, type of subjects, parental income, parental qualification, locality are taken as demographic variables.
4.7. EXPERIMENTATION

Experimentation is a special type of investigation used to determine whether and in what manner variables are related to each other. It is concerned with determining whether there is any relationship between an independent and dependent variable. The investigator controls the educative factor to which a group of student teachers is subjected during the period of inquiry and observes the resulting achievement. The investigator must start the experiment with some measurement of the initial attainment of the student teachers in the trait or ability to be influenced. The investigator then subjects the group to the experimental factor, such as the particular type of training, for the duration of the experiment. At the end, the investigator applies a final test for the purpose of determining the gain in achievement that has resulted from the application of the experimental factor.

From Thirukkural, 10 couplets were identified for each life skill; then, responses were elicited from subject experts regarding their aptness; after, getting further consent from subject experts, the kural couplets were finalized and based on them, the following skills were taught:

1. The skill of self-awareness
2. The skill of effective communication
3. The skill of Interpersonal Relationship
4. The skill of decision making
5. The skill of problem solving

There are quite a good number of Life skills however; the researcher limits herself to five of Life skills. They are Self-awareness, Effective Communication, Interpersonal Relationship, Decision Making, and Problem solving.
THE SKILL OF SELF AWARENESS (jd;idawpjy; jpwd;)

The following 10 Thirukkurals deal with the skill of self-awareness.

1. Rixsp CWXir ehw;wk;vd;W Le;jpd; tinfjuphd; fl;NI cyF.(27)
   The world belongs to those who quell
   Taste, sight, touch, sound and smell.

2. nFLty;ahd; vd;gJ mwpfjd; neQ;rk; eLxuP, my;ynrapd;.(116)
   When the mind swerves from justice to sin
   One should realize the impending ruin.

3. ifk;khW Ntz;lh fl;ghL khupkhL;L vd;Mw;Wk; nfhy;Nyh cyF.(211)
   Duty expects not anything in return
   Just as rain expects none.

4. jd;Dapu; jhd;mwg; ngw;whid Vida kd;Dapu; vy;yhk; njhOk;.(268)
   All living beings on earth will show reverence
   For men who rise above ego thro’ penance.

5. gw;Wmw;Nwk; vd;ghu; gbw;nwhOf;fk; vv;Wvw;Wvd;W Vjk; gyTk; jUk;.(275)
   Who claim they’re saintly but sin secretly
   Will bitterly cry in eternal misery

6. vs;shik Ntz;Lthd; vd;ghd; vidj;njhd;Wk; fs;shik fhf;fjd; neQ;R. (281)
   One should guard the mind against theft
   If one wants to escape contempt.

7. jd;neQ;R mwptJ ngha;aw;f ngha;jjjgp; jd;neQ;Nj jd;idr; RLk;.(293)
   Do not speak falsehood knowingly
As conscience pricks woefully.

8. mstwpe;J thohjhd; tho;f;if csNghy
   ,y;yhfpj; Njhd;wfh; nfLk;. (479)
   Lavish life of one who lives not within means
   Though grand, perishes without traces.

9. vz;zpa vz;zpahq;F va;Jg vz;zpahu;
    jpz;zpau; Mfg; ngwpd;.(666)
   Whatever people desire, they get as desired
   If only they have firmness of mind.

10. nghUs;fUtp fhyk; tpid,IndhL le;Jk;
    ,Us;JPu vz;zpr; nray;. (675)
    Resources, means, time, place and deed
    Examine these five before you proceed.

### Table 4.1
**Self-awareness**

<table>
<thead>
<tr>
<th>Problem with self</th>
<th>Solutions (required self awareness)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrol senses result in sorrow and suffering.</td>
<td>Control over the five senses leads to the gain of the whole world belongs to. (27)</td>
</tr>
<tr>
<td>Mind swerves from justice</td>
<td>Awareness of ruin-(116)</td>
</tr>
<tr>
<td>Expectation</td>
<td>Doing duty like rain- (211)</td>
</tr>
<tr>
<td>Ego</td>
<td>Reverence-(268)</td>
</tr>
<tr>
<td>Secret sin</td>
<td>External misery-(275)</td>
</tr>
<tr>
<td>Theft mind</td>
<td>To escape contempt-(281)</td>
</tr>
<tr>
<td>Falsehood</td>
<td>Conscience-(293)</td>
</tr>
<tr>
<td>Lavish life</td>
<td>Awareness that such life will destroy the whole man completely.-(479)</td>
</tr>
<tr>
<td>“Whatever people desire”</td>
<td>“Will surely achieve whatever they wish for. (666)</td>
</tr>
<tr>
<td>Acting without examining any factor</td>
<td>Acting examining factors like resources, ways, time, place and nature of the deed.(675)</td>
</tr>
</tbody>
</table>
The table no. 4.1 above shows the problems with self and the awareness required for solving the problems. The experimental samples do not have the apt and required strategy for disseminating the taken skill. For propagating that the researcher adopted Thirukkural in an eclectic way.

As an evidence to this researcher the Tamil Text book prepared under Equitable Education System for tenth standard has been used.

Activity:

For the question “Yazhini, why didn’t you give your name?” posed by the teacher, she was unable to answer. One more day is there. Think and tell your decision... telling this, the teacher left the class.

“Yazhini, how we reposed so much faith on you. Won’t your beautiful handwriting and ideas fetch you first prize in the essay competition? But you refuse to take part in the competition. What is the reason?” her friends asked.

“I am afraid to enter the competition. I don’t know whether I could do well as per your expectations. I can’t bear if my essay doesn’t win prize” Yazhini answered them.

Apt to this incident, Tirukkural No. 675

Resources, means, time, place and deed

Examine these five before you proceed.
Which insists on the requirements for doing things in the right way, is taught. When the kural is taught, the student (yazhini) understands it well and thinks of her going to join the competition and her activities for that which involve—compiling ideas for the essay, getting writing material, choosing the time for the competition, planning her act and the place to act. In this way, she gets rid of her shyness and gets ready to participate in the competition.

When self-realization is taught in a **brain storming** (stimulating) way, students learn about themselves, the activities to be done by them; by thinking in various angles, they identify their strengths and weaknesses. Socrates, Vivekananda, Kaviyarasu Kannadasan and others have insisted that one has to think before acting. “Know thyself” denotes the same.

The above was taught to a group of students. Then these students were divided into five groups and were asked to think and come out with their group’s decisions. The following decisions are received from the students’ groups:

i. telling that for want of time, they would join next time
ii. telling with shyness that they are not going to participate.
iii. boldly deciding to take part.
iv. without expecting prize, expressing readiness to take part in the competition.

v. if the ideas known, are expressed in beautiful handwriting, there is a possibility of getting prize.

On the basis of the decisions received from the student groups, it was decided that Yazhini would assess her strength and weakness and decided to participate.
THE SKILL OF EFFECTIVE COMMUNICATION
(rpwg;ghfj; njhlu;G nfhs;Sk; jpwd;)

The following 10 Thirukkurals deal with the skill of “effective communication”.

1. ead;<d;W ed;wp gaf;Fk; gad;<d;W
gz;gpd; jiyg;gpupahr; nrhy;. (97)
Fruitful, polite and pleasant words
Beget happiness and fortunes

2. nrhy;Yf nrhy;ypw; gaDila nrhy;yw;f
nrhy;ypw; gadpyhr; nrhy;. (200)
Always utter fruitful words
Never utter futile words.

3. NfI;lu;g; gpzpf;Fk; jifatha;f; NfshUk;
Ntl;g nkhostjhk; nrhy;. (643)
What holds the audience spellbound and reach
Others and make them long for, is a speech.

4. nrhy;Yf nrhy;iyg; gpwpJXu;nrhy; mr;nrhy;iy
nty;Yk;nrhy; ,d;ik mwpe;J. (645)
Select and speak only such words
Not excelled by other words.

5. Ntl;gjjhk; nrhy;ypg; gpwu;nrhy; gad;Nfhsly;
khl;rapd; khrw;whu; Nfhs;:. (646)
Code of spotless men is to say what is desirable
And grasp from others what is useful.

6. .zu;Co;j;Jk; ehwh kyu;midau; fw;wJ
czu tpupj;Jiuah jhu;. (650)
Who cannot express their lore to others
Are like a bunch of scentless flowers.
7. elinjupe; J ed; Fzu; e; J nrhy; Yf nrhy; ypd; ed; ikatu; (712)
   Men of eloquence judge and speak words
   To suit the time and listeners’ moods.

8. Gy; yitAs; nghr; rhe; Jk; nrhy; yw; ef ey; yitAs;
ed; F nryr; nrhy; Ythu; (719)
   Who speak good things well in a learned council
   Speak not even forgetfully before the ignoble.

9. fw; whUs; fw; whu; vdg; gLu; fw; whu; Kd;
fw; w nryr; nrhy; Y thu; (722)
   Who binds the learned with lore acquired
   Is a learned among the learned.

10. fy; yh jtupd; fnad; g fw; Wmwpe; Jk;
ey; yhu; mitmQ; R thu; (729)
    The scholar who dreads an august assembly
    Is inferior to the ignorant certainly.

Table 4.2 Effective Communication

<table>
<thead>
<tr>
<th>Lack of Communication</th>
<th>For Effective Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using useless words</td>
<td>Use of useful courteous words-(97)</td>
</tr>
<tr>
<td>Utter futile words</td>
<td>Utter fruitful words-(200)</td>
</tr>
<tr>
<td>Un interesting speech</td>
<td>Captivating speech-(643)</td>
</tr>
<tr>
<td>Lack of power of speech</td>
<td>Power of speech-(645)</td>
</tr>
<tr>
<td>To speak bitter and harmful words</td>
<td>To speak sweet words-(646)</td>
</tr>
<tr>
<td>Unable to express what one has learnt</td>
<td>Ability to express what one has learnt-(650)</td>
</tr>
<tr>
<td>Using wrong and improper words</td>
<td>To use right words-(712)</td>
</tr>
<tr>
<td>Not a convincing speech</td>
<td>To speak persuasively-(719)</td>
</tr>
<tr>
<td>Speaking without any knowledge and</td>
<td>To speak with knowledge-(722)</td>
</tr>
</tbody>
</table>
The table no. 4.2 above shows the Lack of Communication and requirement for Effective Communication. The experimental samples do not have the apt and required strategy for disseminating the taken skill. For propagating that the researcher adopted Thirukkural in an eclectic way.

To promote this, the researcher among the students, employed the teaching technique of “Group Discussion”. As mentioned earlier, an activity suggested in the Tamil Text book prepared under Equitable Education System for tenth standard forms the basis for teaching this faculty.

**Activity**

Mathiyazhagan is studying in tenth standard. He wants to study further in the Film Institute. He reveals his idea to his parents. On hearing this, his father becomes angry since he wants his son to become an efficient and eminent engineer. Mathiazhagan finds it difficult to convince his father.

To explain the situation and to build the faculty of efficient communication, Thirukkural NO. 643

What holds the audience spellbound and reach Others and make them long for, is a speech.

(Which means, one has to speak in such a way to convince both the listeners and the persons who were absent) is taught. After learning this Thirukkural with the detailed explanation, Mathiazhagan first explains his desire to his father. When his father refuses, he tells politely of his lack of interest in studying Engineering; he
also explains of his future if he studies in the Film Institute by quoting examples of persons who have earned name and fame in the Film World. By maintaining his poise and by his approaching his parents in a cordial way, he is able to pursue his studies at the Film Institute.

When subjects are taught through **group discussion**, a healthy atmosphere prevails; one is prepared to accept the views of others. To take simple, effective decisions on anything and to act further, the group discussion method helps a lot.

In a classroom comprising a group of students, this student’s situation was explained following which the students indulged in a group discussion. The following decisions/results were received from their discussion:

i) On father’s advice, deciding to join engineering.

ii) Getting confused whether his refusing point-blind to father will fulfill his idea or not.

iii) Not refusing immediately; expressing politely, his desire to his father at appropriate time

iv) Trying to get his father’s consent by quoting examples of the success of those who studied in the film institute and explaining the possibilities of his own success in future

v) By pointing out the fact of the engineering graduates’ inability to get jobs immediately and explaining that he too may suffer a similar fate.

**THE SKILL OF INTERPERSONAL RELATIONSHIP SKILL**

*(cwTKiwa tYg;gLj;Jjy;)*

The following 10 Thirukkurals deal with Inter personal relationship dimension of life skills.

1. ,dpa csthf ,d;dhj $wy;
Using bitter words instead of pleasant words
Is like preferring unripe fruits to ripe ones.

Value merit of men with morals and sagacity
And secure their amity.

Ten times worse is to lose good friends
Than to face countless foes.

No support is better than good company
No misery is worse than bad company.

Showing kindness and patience even to those
Who hurt is the chief of virtues.

Friendship lies in unwavering ways
And helps in all possible times.

Seek men who make you feel, reprove errors
And teach you the right ways.

What is that intimacy if chums accept not acts
Done through liberty as their own acts?
True and old friends in steadfast love
Tho’harmed, won’t cease to love.

Table 4.3

Interpersonal Relationship Skill

<table>
<thead>
<tr>
<th>Lack of relationship</th>
<th>Interpersonal relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using bitter words</td>
<td>Using pleasant words --(100)</td>
</tr>
<tr>
<td>Not understanding the value of men</td>
<td>Understanding and analyzing their friendship- (441)</td>
</tr>
<tr>
<td>Abandoning good friends</td>
<td>Keeping good friends-(450)</td>
</tr>
<tr>
<td>Bad friendship</td>
<td>Good friendship-(460)</td>
</tr>
<tr>
<td>Angry with others</td>
<td>Showing kindness and patience to others-- (579)</td>
</tr>
<tr>
<td>Not getting help from others</td>
<td>Getting help from others and making them friends at all the times-(789)</td>
</tr>
<tr>
<td>Without testing one’s friendship.</td>
<td>Testing one’s friendship. One’s character, clan, defects and relatives must be studied before befriend one-(793)</td>
</tr>
<tr>
<td>Unable to see worthy friends</td>
<td>One should seek worthy friends.--(795)</td>
</tr>
<tr>
<td>Not approving the freedom of action of a friend.</td>
<td>approving the freedom of action of a friend and so not losing friendship with others.--(803)</td>
</tr>
<tr>
<td>Even when friends do ruinous deeds.</td>
<td>True friends will not break their friendship.--(807)</td>
</tr>
</tbody>
</table>

The table no.4.3 above shows the Lack of relationship and the requirement For Interpersonal relationship. The experimental samples do not have the apt and required strategy for disseminating the taken skill. For propagating that the researcher adopted Thirukkural in an eclectic way.
The researcher used the **debating method** to teach interpersonal communication skills.

Students were divided into six groups. The group leaders were asked to receive feedback from the student-participants regarding their environment and to take part in the debating.

During the debating, the group leaders agreed and differed spontaneously to the points debated.

The group leaders mingled with their group members in a friendly way and received their feedback. Every student gave the necessary feedback for his group. Some students distanced themselves from the students who indulged in unacceptable activities to the former. Some students tried to force their ideas in a domineering way. Also, when their ideas were not accepted by others, these students got angry and used harsh words.

There was a gap after the debate. Then, the researcher explained the meaning of the Tirukkural couplets identified to develop interpersonal skills.

A suitable activity has been cited from the 9th standard Tamil text book.

**Activity:**

To celebrate the annual day of the school, competitions were announced for students. Students were selected to celebrate the event in a befitting way. Among them were, Bharathi and Valavan from the same class.

Bharathi was studying in that school for many years. But Valavan joined the school from another middle school. Hence, he had not enough knowledge about the annual day celebrations. Bharathi played a seminal role in the previous year’s annual day celebrations. Hence, Bharathi explained Valavan about annual day celebrations. Both of them discussed the requirements of the annual day in
the discussion, Bharathi gave important ideas to Valavan and he accepted them. Both of them along with their friends organized the annual day in an excellent way.

After explaining the above life-situation to foster the facility of friendship, a group discussion was organized to elicit responses from students.

Students were divided into five groups; the group leaders were asked to elicit responses from group members regarding the situations of Bharathi and Valavan and to present the same. The following results are derived from the group leaders:

i. Valavan suggests the teacher to choose Bharathi for the task.
ii. Both of them together, (with Bharathi’s informing Valavan periodically regarding the annual day) and participating with devotion
iii. Valavan is gathering details regarding the annual day celebrations from students of other classes and his acting accordingly
iv. Bharathi’s neglecting Valavan and is acting on his own.
v. Both of them, not showing mutual-discontent, jointly working for the welfare of their school on the basis of the results derived from students, the relevance of Thirukkural (no.789)

Friendship lies in unwavering ways
And helps in all possible times.

Which highlights the greatness of mutual friendship sans discontent) is shown. Though, Valavan is a new entrant to the school, Bharathi did not see any difference nor did he nurture any dissatisfaction with the former. Also,
without displaying any arrogance over his experience in organizing the annual day, he helps Valavan on the annual day activities. Valavan too accepts Bharathi’s and other students’ ideas whole-heartedly. This resulted in the celebration of the annual day in an appropriate way.

“One should make friends with those who chastise and advises us when we indulge in activities, contrary to universal system” was explained to the students. Then, there was a debate/discussion again on the activity conducted as above. Then, students spoke with evidence to convince the listeners. Finally, students mingled among themselves in a friendly way, discussed and functioned efficiently.

**THE SKILL OF DECISION MAKING (KbnTLf;Fk; jpwd; )**

The following 10 Thirukkurals deal with the skill of decision making.

1. kwe;Jk; gpwd;NfL #ow;f #opd;.
   mwQ;#Ok; #o;e;jtd; NfL. (204)
   Never plot evil against others even forgetfully
   Or else virtue will ruin you surely.

2. tpatw;f vQ;Qhd;Wk; jd;id eatw;f
   ed;wp gath tpid. (439)
   Never indulge in self-praise in any mood
   Nor desire deeds bringing no good.

3. vz;zpj; Jzpf fUkk; Jzpe;jgpd;
   vz;Ztk; vd;gJ ,Of;F. (467)
   Think first and then venture on an act
   To venture and then think is a fault.

4. Fzk;ehbf; Fw;wKk; ehb mtw;Ws;
   kpifehb kpf;f nfhsy:. (504)
   Analyse good and bad qualities
   Strike a balance and choose.
5. cs;StJ vy;yhk; cau;Ts;sy; kw;WmJ js;spDk; js;shik ePu;j;J. (596)
   Let your thoughts be high and lofty always
   You may fail but your zeal stays.

6. Jd;gk; cwtupDQ; nra;f Jzpthw;wp ,d;gk; gaf;Fk; tpid. (669)
   With whatever hardships you are beset
   Boldly do deeds that bring delight.

7. J}q;Ff J}q;fpr; nraw;ghy J}q;fw;f J}q;fhJ nra;Ak; tpid. (672)
   Delay only the deeds that merit delay
   Delay not deeds that merit no delay.

8. J}q;fj;J Ks;kuk;; nfhy;f fisAeu; ifnfhy;Yq; fho;j;j tplj;J. (879)
   While young and tender, destroy thorny trees
   Grown hard, they hurt the cutter’s hands.

9. ngUf;jf;J Ntz;Lk; gzpjy; rpwpa RUf;jf;J Ntz;Lk; cau;T. (963)
   Practise utmost humility in prosperity
   Uphold due dignity in adversity.

10. Fd;wpd; midahUk; Fd;Wtu; Fd;Wt Fd;wp mida nrapd;. (965).
    Great men of hill-like status will surely be debased
    Tho’ their flaws are as small as a kunri seed
Table 4.4

The Skill of Decision Making

<table>
<thead>
<tr>
<th>Inability to take decision</th>
<th>Decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtue will destroy one who plots others’ ruin.</td>
<td>One must avoid plotting evil against others. –(204)</td>
</tr>
<tr>
<td>People of self-praise do not have the capacity to make decision.</td>
<td>Only those who do not praise themselves can make quick decision. - (439).</td>
</tr>
<tr>
<td>A thoughtless person cannot make any decision.</td>
<td>Only a person who thinks before any action has the power to make any decision –(467)</td>
</tr>
<tr>
<td>A person who cannot analysis good and bad qualities.(or) Cannot make a balanced decision.</td>
<td>Only the person who can analyse good and bad qualities can choose a particular thing that has more good qualities. – (504).</td>
</tr>
<tr>
<td>The man who does not have high and noble thoughts cannot take any decision.</td>
<td>The man with high and noble thoughts can easily make decisions. –(596)</td>
</tr>
<tr>
<td>A person who is afraid of hardships cannot do deeds of delight.</td>
<td>Only the person who is bold and who is not afraid of hardships can perform delightful deeds. –(669)</td>
</tr>
<tr>
<td>The person who cannot take any decision always delays his/her actions.</td>
<td>Delay is avoided by persons with ability to take decision. –(672)</td>
</tr>
<tr>
<td>A person without decision making power injures himself/herself.</td>
<td>The person with decision making power decides to do the action then and there. He will not injure himself at a later period.(879).</td>
</tr>
<tr>
<td>The man of inability to take decision can never prosper.</td>
<td>People of decision making power will definitely prosper. Such people should develop the virtue of humility.–(963)</td>
</tr>
<tr>
<td>People lacking the power of decision making will commit mistakes in their actions.</td>
<td>People having decision making power will not commit mistakes. They will keep himself at a great height.–(965)</td>
</tr>
</tbody>
</table>

The table no. 4.4 above shows the Inability to take decision and the requirement For Decision making. The experimental samples do not have the apt
and required strategy for disseminating the taken skill. For propagating that the researcher adopted Thirukkural in an eclectic way.

The researcher used the teaching technique of “Role Play” to teach Decision Making.

The students were divided into six groups and were asked to indulge in role-play the student who reacts to his situation and makes decisions.

During role-play, students exhibited their ability to express their ideas (at times in self-contradictory way); they were able to oppose when necessary in subtle ways and were able to get their needs fulfilled. Still, they did not have the decision-making ability.

There was a short gap after the role-play. Then, the researcher explained the Tirukkural couplets chosen to enhance the students’ decision making ability.

By adopting this method, students were able to fit their feelings with real life incidents and got the ability to make right decisions at right time. They realized by experience that both taking right decisions, wasting a long time and taking wrong decisions rashly are bad. Thus, they realized the necessity of the right kind of decision making.

Example for this skill has been cited from the ninth standard Tamil Text Book.

Activity:

Vetrichelvan, a ninth standard student excels in sports. His exam was fast approaching.

One day his physical education teacher called him and said “happy news for you! Next week, a National level Volley Ball tournament is going to take place in New Delhi. You have been selected to represent Tamil Nadu. You have to go to
New Delhi. Inform your parents.” Vetrichelvan’s parents said: “No need, education is important than sports it is only for relaxation o.k. You are playing in the school that is enough. Going to Delhi…… we can’t send you alone to such a distant place. We too cannot accompany you.”

The teacher says that it is a rare opportunity. But the parents refuse to send him to Delhi. To face such a situation the Thirukkural (No.672-.)

Delay only the deeds that merit delay
Delay not deeds that merit no delay.

Jq;Ff Jq;fpr; nraw;ghy Jq;fw;f
Jq;fhAk; tpid. (Fws;-672).

which advocates the right way of doing things) is taught. After learning the Kural, Vetrichelvan assesses the problematic situation. Making decision on his own, he informs his parents that his name has been recommended for the competition. Though exam is fast approaching, it is not going to be held in a day or two. Vetrichelvan gets assured that the competition is slated for next week, well-ahead of the exams. Already interested in studies, he also comes to know of the reservation for sports persons in higher education. As one who has learnt the above Kural, Vetrichelvan decides on his own: that is, which one should be done first. He decides to utilize the opportunity to take part in the sports event in New Delhi.

Decision making skill is highly essential for students. Because, social milieu is not pre-designed; it could be in either way. To face life-situations and in clear-cut decision making lies human life.

From the existing five groups, two students were taken from each group and role play was conducted. Students played the roles of teacher, student,
student’s friends and parents. Through role play, decision was made in the case of Vetrichelvan.

By adopting this method, students were able to fit their feelings with real life incidents and got the ability to make right decisions at right time. They realized by experience that both taking right decisions, wasting a long time and taking wrong decisions rashly are bad. Thus, they realized the necessity of the right kind of decision making.

THE SKILL OF PROBLEM SOLVING

The following 10 Thirukkural deal with the skill of problem solving.

1. mlf;fk; mkuus; ca;f;Fk; mlq;fhik  
MupUs; ca;j;J tpLk;: (121).  
Self-control will place one among gods  
Lack of it sinks one into a life of evils.

2. ahfhth uhapDk; ehfhf;f fhthf;fhy;  
Nrhfhg;gu; nrhy;ypOf;Fg; gl;L. (127)  
Control your tongue if not anything; otherwise  
A slip of the tongue brings evils.

3. mfo;thiuj; jhq;Fk; epyk; Nghyj; jk;ik  
,fo;thu;g; nghWj;jy; ji;jy. (151)  
Chief of virtues is to bear with revilers  
Just as the earth bears its diggers.

4. Vjpyhu; Fw;wk; Nghy; jhk;Fw;wk; fhz;fpw;gpd;  
JPJz;Nlh kd;Dk; capu;f;F. (190)  
If everyone sees his faults as he sees others’  
Will any evil ever fall on living beings?.

5. mwk;$whd; my;y rrnapDk; xUtd;
Though one ignores virtue and does evils
It is good not to backbite others.

6. To guard yourself, keep wrath at bay
Unchecked, ire will yourself slay.

7. Weigh the act, your own might, foes’ might
And allies’ might and proceed straight.

8. Forgetting one’s duty in excessive happiness
Is worse than wrath in excess.

9. Laugh away the trouble when it comes
Nothing equals it to conquer pains.

10. Move with a moody king as with fire
Neither too far nor too near.

Table 4.5
The skill of Problem Solving

<table>
<thead>
<tr>
<th>Problems faced</th>
<th>Ways to solve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of self control leads a man to a life of miseries.</td>
<td>Self control raises a man to great heights among gods.-(121)</td>
</tr>
<tr>
<td></td>
<td>Control the tongue-(127)</td>
</tr>
<tr>
<td>Revilers.</td>
<td>Bear with them-(151)</td>
</tr>
<tr>
<td>Finding fault with others. Slip of the tongue bring evil.</td>
<td>Analyzing one’s own fault-(190)</td>
</tr>
<tr>
<td>Anger</td>
<td>Keep away from anger-(305)</td>
</tr>
<tr>
<td>Backbiting</td>
<td>Avoid backbiting-(181)</td>
</tr>
<tr>
<td>Over confidence</td>
<td>Strength of everything to be noted-(471)</td>
</tr>
<tr>
<td>Forgetting one’s duty in excessive happiness</td>
<td>Awareness that it is worse than excessive anger-(531)</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Trouble</td>
<td>Laugh it away thinking that next will not be like that.- (621)</td>
</tr>
<tr>
<td>Associating with moody kings</td>
<td>Treating them as fire neither near nor far.- (691)</td>
</tr>
</tbody>
</table>

The table no. 4.5 above shows the problems faced and the required ways to solve. The experimental samples do not have the apt and required strategy for disseminating the taken skill. For propagating that the researcher adopted Thirukkural in an eclectic way.

The researcher employed the technique of “story telling” to teach problem solving ability.

By making the students to listen to storytelling, one could make them to arrive at solutions through various angles, for solving their problems. The stories should be told in an interesting way and should have morals to instill in students. Students showed interest in listening to real life stories. Some students did not show much interest and some were hesitant on following the teachings of the stories. After a gap, the researcher explained the Tirukkural couplets chosen to enhance the problem solving ability of the students.

An activity is taken from the Tamil text book in vogue for the tenth standard has been taken up here.

**Activity:**

Pandian would get at least sixty marks in every examination. Not satisfied with the marks, his father sends him for tuition. Pandian does not like the behaviour of the tuition teacher. He is pained that his words will be taken for his lack of interest in going for tuition studies.
The Thirukkural (no.471)

Weigh the act, your own might, foes’ might
And allies’ might and proceed straight.
tpidtypAk; jd;typAk; khw;whd; typAk;
JiztypAk; J)f;fpr; nray;. (Fws:-471)

Which highlights problem solving) is taught here. Pandian who learns the kural with the help of his teacher, compares his problem with the solution offered by the Kural. To learn the lesson is the challenge and also the ideal of Pandian; he learns that the hindrance to realize his aim lies in the behaviour of his tuition teacher. Here, learning is the act (vinai) of Pandian; tuition teacher is the ‘other’; though Pandian knows about the teacher, the latter being elder to him, he could not express his problem openly to the teacher. After a deep thinking, with the help of his parents, Pandian came out of the tuition center and joins another center and continues his studies. This is told as an anecdote to students and fostering problem solving ability among students.

The message of the chosen kural couplets were told as stories. On the basis of these stories, students could form their lives and could refuse the ideas of others and could take meaningful decisions. Through these Tirukkural-stories, one could instill the inherent ethics and other good qualities in students. By listening to these stories, students would attain problem solving ability.

We can use to teach any methods in the helps of technique skills above according to our own interest. Not only these particular methods.

4.8. CONDUCTING THE EXPERIMENT
Administration of the Pre–Test

Just before the treatment, the pretest was administered and the entry behaviour was recorded. The demographic variables (gender, locality, subject specialization, parental qualification) of the samples were collected priorly. Then the scores of the pre-test were analyzed.

Treatment

The experimental sample group of 60 student teachers was taken. These students were taught with desired strategies and in the instructional methods. The feedback was given when and wherever necessary. When any point was not learnt, additional time was given and remedial measures were taken wherever necessary. The student teachers were given opportunity to share their views after the treatment which was very helpful in the concept of peer learning. They used their own experiences for learning.

A treatment is something that researcher administers to experimental units. Treatment was given to the experimental group by employing desired teaching methods. The treatment time spread over 10 weeks seems to be adequate for the purpose. The day wise schedule was well designed and implemented. Each day spends one hour for treatment.

The experimental group student teachers got teaching through different methods. Using these methods the investigator made the student teachers to realize the effectiveness of the use of these methods in learning and teaching and the discussion about the methods to develop these methods in their movements such as personal life, professional life and facing and cope up with the critical situations in their life were carried out.

Administration of the Post–Test
The same pre–test questions were given to the student teachers and their results were statistically analyzed to find out the effectiveness of these method way of teaching. While conducting the test strict and effective monitoring and supervision were taken against malpractice.

**Test Administration**

The investigator got permission from the principal of Government college of Education, Pudukkottai affiliated to the Tamilnadu Teachers Education University, Chennai for conducting the experiment there. The student teachers were selected clusterly from this institution for applying the experiment. The institution’s classroom and computer lab was used for the treatment. The experimental group was taught through different teaching methods by the field investigator. The investigator trained them in such a way that there should not be any experimental bias. Soon after the training was over, post test was given. The pre-test and post-test scores were transferred to the data sheet. Student teachers achievement marks also collected.

**4.9. OPERATIONAL DEFINITION OF IMPORTANT KEY TERMS**

**Effectiveness**

Effectiveness means the capability of producing an effect, and is most frequently used in connection with the degree to which something is capable of producing a specific, desired effect.

**Life Skills**

Life skills are abilities for adaptive and positive behaviour that enable humans to deal effectively with the demands and challenges of everyday life;[1] in other words, psychosocial competency
Thirukkural

The Tirukkural or Thirukkural, or shortly the Kural, is a classic Tamil sangam literature consisting of 1330 couplets or kurals, dealing with the everyday virtues of an individual. It was authored by Thiruvalluvar

B.Ed Trainees

The Teacher Education programme which intends to prepare the future teachers, here it means, the students who are undergoing Bachelor of Education (B.Ed.) course. The student teachers who undergo two years professional training (Bachelor of Education) to become future teachers Colleges of Education.

4.10 STATEMENT OF THE PROBLEM

Education is a lifelong process. Every year, every month, every day and every minute step by step a person learns. So every individual must equip himself/herself in every moment of his/her life to meet the new challenges in life.

B.Ed training is must for teachers. It is required to teach the teachers to live a community life. Life skills are essential to lead a successful community life. The investigator has found that the B.Ed trainees lack these skills through classroom activities and other college events. The investigator pooled the life skills required for a teacher, this was very useful for preparation of student’s individual as well as community life. So, the investigator probed the problems “Effectiveness of selected strategies in enhancing life skills reflected in Thirukkural among B.Ed Trainees”.

4.11. OBJECTIVES OF THE STUDY

1) To identify the life skills

2) To find out the life skills in the Thirukkural
3) To develop the strategies to enhance the selected life skills for B.Ed Trainees

4) To implement life skills through selected strategies among B.Ed Trainees.

5) To find out the effect of selected strategies in improving the life skills among B.Ed Trainees

6) To find out the effect of selected strategies in improving self awareness of B.Ed trainees

7) To find out the effect of selected strategies in improving effective communication of B.Ed trainees

8) To find out the effect of selected strategies in improving interpersonal relationship of B.Ed trainees

9) To find out the effect of selected strategies in improving decision making of B.Ed trainees

10) To find out the effect of selected strategies in improving problem solving of B.Ed trainees

4.12. HYPOTHESES

1. There is no significant difference between pre-test and post-test mean scores of the life skills among B.Ed Trainees

2. There is no significant difference between the post-test mean scores of the life skill and its dimension with respect to gender among B.Ed Trainees.

3. There is no significant difference between the post-test mean scores of the life skill and its dimension with respect to locality.

4. There is no significant difference between the post-test mean scores of the life skill and its dimension with respect to types of family.
5. There is no significant difference between the post-test mean scores of the life skills and its dimensions with respect to parental educational qualification.

6. There is no significant difference between the post-test mean scores of the life skills and its dimensions with respect to parent’s occupation.

7. There is no significant difference between pre-test and post-test mean scores of the achievement in teaching of Tamil among B.Ed Trainees.

8. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to gender.

9. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to student’s locality.

10. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to type of family.

11. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to branch of study.

12. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to parent’s educational qualification.

13. There is no significant difference between the post-test mean scores of the achievement in teaching of Tamil with respect to parent’s occupation.

**4.13. POPULATION FOR THE STUDY**

Population means the aggregate or totality of objects or individuals regarding which inferences are to be made in a sampling study. It means all those people or documents, etc., who are proposed to be covered under the scheme of study. A population is any group of individuals that have one or more characteristics in
common that are of interest to the researcher. The Population consists of all B.Ed optional II students of Tamilnadu teacher Education University, Chennai.

4.14. SAMPLE FOR THE STUDY

A sample is a small proportion of a population selected for analysis. By observing the sample, certain inferences may be made about the population. Contrary to popular opinion, sample are not selected haphazardly, but are chosen in a deliberate way so that the influence of chance or probability can be estimated.

All Optional II Tamil 60 student teachers of Government college of Education, Pudukkottai affiliated to the Tamilnadu Teachers Education University, Chennai were selected as sample by using cluster sampling technique.

4.15. TOOLS USED FOR THE STUDY

Tools should be suitable for the collection of certain type of information. Each tool is particularly appropriate for certain sources of data, yielding information of the kind and in the form that would be most effectively used. The tools commonly used in qualitative studies are observation method, interviews, sociometry and projective techniques. With quantitative research it is appropriate to use the other tools such as observations, method in which frequencies are recorded, interview schedules with rating scales, checklists, inventories and attitude scales.

Collection of relevant data is one of the most important steps in any research, especially in the field of education. For this, an appropriate instrument or tool is very essential. In certain researches, readymade tools are used by the investigator to
carry out the study. In such cases, where readymade tools are not available, the investigator has to prepare suitable tools. They will work adequately with the subjects selected for the study.

In this present project, the investigator has used tools to measure the effectiveness of the use of different teaching methods for teaching Tamil Tirukkural. They are;

1. Pre test and post test life skills assessment scale and validated developed by the investigator.
2. Different teaching (Methods - Treatment)
   Debate, Storytelling, discussion, Role play, brain storm
3. Achievement Test in Tamil for B.Ed Trainees developed and validated by the researcher.

4.16. DESCRIPTION OF THE TOOLS

Construction of Pre test and Post test Life skills Assessment Tool

Pre test life skill assessment scale was developed by the investigator in order to find out the life skill acquired by B.Ed trainees through the selected strategies of teaching life skills. The tool consists of 50 items comprises of 5 important areas of life skills selected by the investigator. The questions were designed based on the concept of the general life skills abilities and the life skills exemplified in Thirukkural.

The scale was administered before the experimentation to assess the life skills of B.Ed trainees and designed as pre test score. After experimental procedure completed the same scale was administered and the score denoted the post test.
The life skills assessment scale covered the general life skill statements and the life skills that are present in the select Thirukkural and the tool has multiface utilities in the learning environment.

**Figure No.4.1  Steps involved in the development of life Skill Assessment Scale**

**B) Sources of items**

The preliminary item pool was made by drawing items from the following sources.
• Discussion with experienced resource persons
• Discussion with experienced Life skills Trainers
• Discussion with learners
• Discussion with experienced educational experts and
• Review of thematic and research work.

By careful analysis of the above source, the statements were collected and tabulated. Thus a tool of 75 items was gathered during this stage.

C) Criteria for selection of items.

The collected statements were not directly administered, but they were subjected to screening. The following criteria were considered while screening. Some of the statements were deleted, a few items were added and some items modified.

a. The language of the statements should be simple, concise and unambiguous
b. The rater should clearly know that he/she is rating at five point scale.
c. The direction should be clear for honest rating
d. Each and every statement should be short
e. The compound and complex sentences should be avoided.

4.16.1 Pilot Phase

The pilot study is concerned with screening of items selected during the pre-plot study. The reselection of the item 75 was done on the basis of Judgment Analysis. The entire selected item was again given to the subject experts to determine the suitability and objective of the items pooled. It has been sent to the jury council. It consists of 3 faculty members from Alagappa University, 3 members from Government College of Education, Pudukkottai and two from Ganesar Arts and Science College, Melaisivapuri and also two from VOC college, Thoothukudi.
On the basis of jury council’s judgement, some items were deleted and some were restructured and irrelevant and ambiguous items were eliminated. At last 50 items were retained.

4.16.2 Finalization Phase

This stage is concerned with the random distribution of final items in the attitude scale. The items numbering 50 were randomly distributed in the life skills assessment scale.

4.16.3 Scoring procedure

The life skills assessment scale is a likert type of scale with five anchoring points.

A point of 1 is assigned to ‘Not all true of me’ response

A point of 2 is assigned to ‘Occasionally true of me’ response

A point of 3 is assigned to ‘Sometimes true of me’ response

A point of 4 is assigned to ‘Very true of me’ response

A point of 5 is assigned to ‘Always true of me’ response

4.17 CONSTRUCTION OF ACHIEVEMENT TEST

The Researcher framed achievement test questions (2014) to the student teachers in the form of objective type questions were framed covering the Tamil Optional II of B.Ed., course was taken from their syllabus, to test the effectiveness of different teaching methods in teaching and learning for the experimental group. Blue print was prepared for framing the questions. Multiple choices were the types of questions used in this achievement test. The questions were framed so as to suit the level of student teachers. The items included in the final form of achievement test were selected on the basis of item analysis. Initially 65 questions of objective type in nature were framed for tryouts. 100 percent multiple choice test items were framed for the achievement test and the final form consists of only 50 questions; for
the reason of removal of above 80 % and below 20% difficulty index and discriminating power. It was prepared in Tamil.

In total, the 50 questions are taken for 100 marks to the student teachers. Two marks were given for each correct answer. The achievement test question was given in the appendix (IV).

4.18. DELIMITATION OF THE STUDY

1. This investigation is restricted only to government college of education Pudukottai
2. This investigation is confined only to students of optional II Tamil
3. Sixty students in the optional II Tamil were selected for investigation
4. Selected kurals were covered of experimental purposes
5. The investigator adopted single group experimental design. This did not use any control group
6. The study was conducted for 10 weeks

4.19. STATISTICAL TECHNIQUES USED

The following statistical techniques were used for the analysis of the data to draw meaningful generalization.

i) Percentage analysis

ii) Paired t-test to find out the difference between two variables.

iii) ANOVA test and Post ANOVA test

4.20. CONCLUSION
In this chapter, the investigator has discussed the assumptions, objectives and hypotheses of the study. Details of analysis and interpretation of data is presented in the next chapter.

CHAPTER-V

ANALYSIS AND INTERPRETATION OF DATA

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