

This chapter discusses the operational definitions, research design, methodology, sample, pilot study, procedure for data collection including program implementation, plan for data analysis and evaluation used in the present study.

# **Operational Definitions**

Life skills development program: Program designed for adolescents to develop life skills for healthy living, including skills to meet everyday life challenges and resolve common dilemmas in school and home settings.

Life skills domains: A list of operational definitions for life skills domains is given in Appendix B.

# **Research Design**

The *quasi - experimental nonequivalent control group design* was used to carry out an action research. It comprised needs assessment based on which the program was designed and implemented, followed by assessment and evaluation. A manual for educators in the schools was also prepared. The research design is depicted below:

Control Group	R	0	X	01
<b>Experimental Group</b>	R	0	X1	<b>O</b> 1

Where,

R is the present state of existing groups

O is pretest

X is no treatment

- X1 is the life skills program
- O1 is posttest. (Cook & Campbell, 1979)

The design provides for all the *internal validity threats* such as pretest controls for mortality; control group for maturation, history, testing and instrumentation; and pretest plus control group together for other internal validity threats. The weakness of the design is regression and sample selection factors which can be controlled by using a matched sample / or similar groups (Strauss & Corbin, 1990). Another drawback might be the possible interaction between the pretest and the treatment, but that can be minimized by the non-reactive nature of the pretest (not having reactive measures such as attitude scales) and by the length of the study. The validity threats were addressed in the following manner<sup>-</sup>

- Pretest posttest interaction, remembering or carry over effect: This was minimized by administering posttest on both the groups after six months of pre testing
- Mortality/ attrition or dropouts. There were no dropouts in the study
- Unavailability of matching sample (unseen variable effects) and interpreting results based on the intervention may be hazardous because of plausible alternative explanations such as effect of maturation. ANCOVA (Analysis of Covariance) was used to stabilize the pretest scores in ascertaining the effectiveness of the program.

# **Intercoder Reliability**

Four researchers (two from Human Development and Family Studies, one from Education and Psychology, and one from Social Work) analyzed the responses on the life skills assessment tool. An intercoder reliability of 95% was established for all domains of the tool except for one activity, identifying emotions, wherein it was 90%.

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The formula used was as follows:

Number of agreements

Intercoder reliability =

X 100

**Total number of agreements + disagreements** 

(Miles & Huberman, 1994)

# **Study Locale**

The study was conducted in two urban schools in Udaipur city, Rajasthan. The criteria

for selection of the schools were as follows:

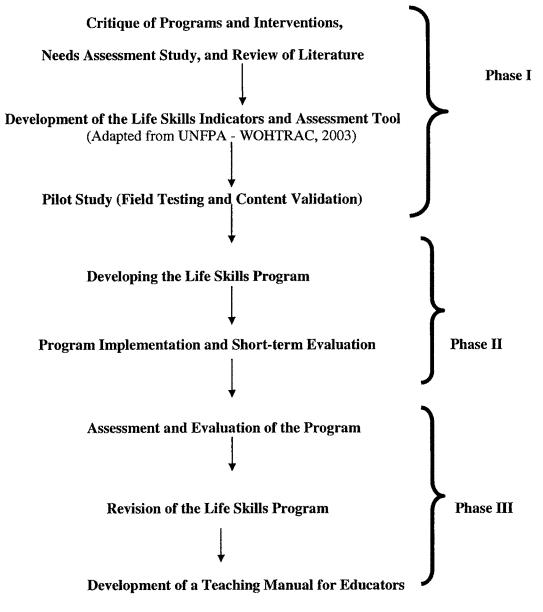
- English medium
- Coeducation
- Urban setting
- Catering to students of middle/upper middle class families

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• Willingness to incorporate the program in the school curriculum.

# Methodology

The following plan of action was adopted.



(Adapted from Framework for Planning Research, WHO, 1996b)

Figure 2. Plan of action and methodology of the action research

The research progressed in the above mentioned order of methodology. These three phases namely, Phase I - Development Phase, Phase II – Implementation Phase, and Phase III – Maintenance Phase are described in detail on page 8 and 9 later in this chapter.

### Sample

### Sample Identification

Two sample groups were identified for the two phases of the study. Sample I was the Needs Assessment Study Group, and Sample II was the Intervention Program Group.

# Sample I - Needs assessment study group

The sample for the needs assessment was purposively identified from upper-middle class families with adolescents in the age group of 13-14 years. Forty individuals comprising 10 mothers and 10 fathers, four school teachers and six experts from different fields were identified. Each individual was interviewed for 20-30 minutes using the open-ended interview schedule designed specifically for the needs assessment study

(see Appendix E).

## Sample II - The intervention program sample group

The program was implemented in two schools. Using *cluster sampling*, students of two sections of standard VIII (13-14 years of age) during the academic year 2003- 2004 were selected for the study purpose. The control group and the experimental group were selected from different schools matching on the above criteria. Class teachers of the respective classes were involved and trained in conducting the sessions as educators. This

was purposively done with the purpose to enable continuity of the program in future. However, the investigator herself implemented the entire program. Written consent was taken from the students as well as parents, and also from the school principal for their children's participation in the study (see Appendices C and D). In consultation with the school authorities, each participant including the students, parents and teachers received a small gift for participating in the study from the investigator.

# Rationale for the sample

Why school going adolescents? School going adolescents are required to deal with their personal as well as academic lives. The academic aspirations of parents, peer pressure, and media influences demand different types of competencies and abilities which introduce more challenges in the adolescents' daily lives.

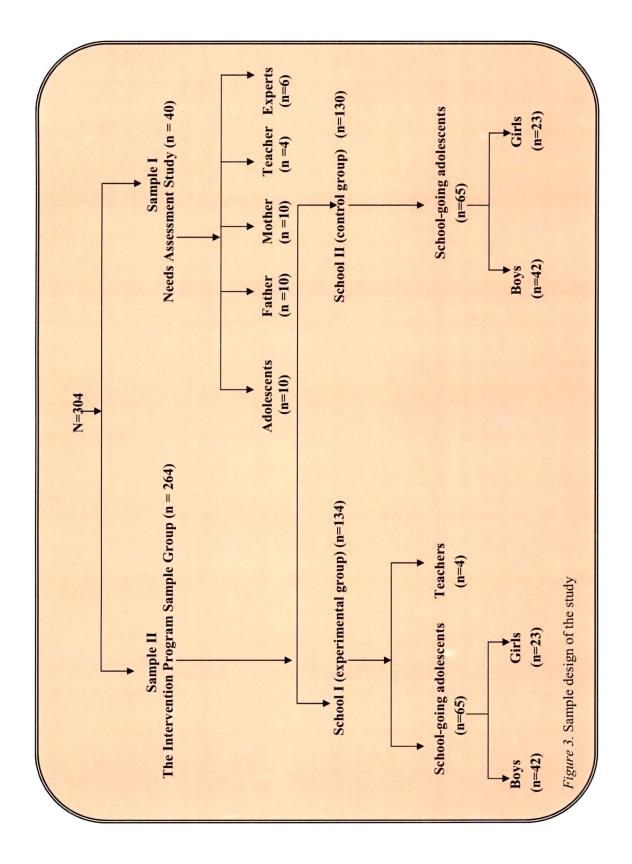
*Why girls and boys?* For equal representation of gender in the study and as suggested by the review of literature, it is necessary to explore the gender dimension as gender mediates life skills development depending on the individuals varied contexts of development. The inadequacy of gender sensitivity with respect to the differential needs, potential and skills of the adolescent girls and boys has led to lack of awareness of the needs of the opposite sex.

*Why teachers?* The sustenance of the program in the school will be dependent on the teachers of the school. As the teachers are in daily contact with adolescents and know them well, it is necessary and prudent to involve the teachers in such a program.

*Why parents?* As parents are the guardians, it is very necessary and ethical to involve them in the program Importantly, they can help adolescents to build effective life skills by supporting them in different aspects of their lives.

# Sample Design

The sample comprised 304 individuals from Udaipur, Rajasthan. The sample description is given in Figure 3.





### **Pilot Study**

A pilot study was conducted with 14 children comprising two boys and two girls each from standard VII, and six boys and four girls each from standard VIII in Udaipur (Rajasthan) in March 2003. It was difficult to identify the sample as most of the schools were either having examinations or were closed for break after examinations. The tool developed by UNFPA - WOHTRAC (2003) was used to assess the life skills of adolescents. The main domains of the tool were thinking, social and negotiation skills. The adolescents took approximately 1½ to 2 hours to complete the tool. The pilot study revealed that the tool is needed to be revised in the terms of the context such as including context specific decision making scenarios, decreasing the length and including more activity based exercises instead of a question-answer pattern.

#### **Study Phases**

The study was conducted in three phases namely:

- 1. Development Phase
- 2. Implementation Phase
- 3. Maintenance Phase

### (Adapted from Framework for Planning Research, WHO 1996b)

1. **Development Phase**: In this phase, needs assessment study was conducted which aimed at gathering comprehensive information of life skills as a concept. It included administering an open-ended questionnaire to 40 individuals, namely 10 mothers, 10 fathers, 10 adolescents (5 girls, 5 boys) and 10 experts comprising psychiatrists, school teachers, NGO experts/fieldworkers, counselors and Human Development professionals who are working with adolescents, to obtain data on the contemporary context specific scenario of the lives of the adolescents. The open-ended questionnaire, which was used for the needs assessment study focused on the definition of adolescents, problems /challenges faced by them in daily life and the skills needed to resolve them (see Appendix E for questionnaire).

Each interview took about 20-30 minutes per person. The data obtained was analyzed using frequency tables and meta-matrices, for conceptualization of the framework and to develop the context specific tool as well as the program on life skills for adolescents. The domains of life skills were conceptualized based on the needs of the adolescents. The developmental needs of adolescents and the context specific aspects yielded from the needs assessment study guided the framework of the program. The highlights of the needs assessment study are presented in the results section.

The life skills tool (see appendix F) and life skills program (see life skills program manual) were also developed in the development phase.

2. Implementation Phase: The researcher implemented the program with four select class teachers of standard VIII based on their willingness to become life skills educator. A short-term process evaluation was done after each session. Training of teachers was conducted in a one-day workshop. A workshop was also organized to orient parents about life skills education and to discuss their queries, if any.

3. **Maintenance Phase**: Review and evaluation of the program was done. Past experiences of life skills programs have recommended that the program be separately implemented as more importance is given to the academic subjects than the life skills program activities on regular basis (WHO, 1996b). Thus, the investigator made efforts (such as organizing meetings with the teachers and the Principal of the school, focus group discussion with parents / teachers / adolescents for feedback and conveying the importance of continuing the life skills program in school), to incorporate the life skills program in the school curriculum.

### **Procedure of Data Collection**

Data was collected in two phases. The first phase of data collection occurred prior to program implementation for both the groups, that is, pre-testing of the life skills of adolescents. The second phase of data collection, that is, post-testing of the life skills of adolescents took place after an interval of six months after the implementation of the life skills program.

# Evaluation

The process evaluation was done simultaneously which fed into the program as it happens in action research designs. The evaluation form (see appendix G) was completed by the teachers and adolescents themselves, and a focus group discussion was conducted to get feedback on each session.

### **Data Analysis**

Statistical and qualitative analyses of data were performed. The software package SPSS (Software Package for Social Sciences, Version 11.0) was used to analyze the data. The scores on the tool have been calculated to assess the level of life skills present among adolescents as per the framework (see appendix H) developed by the investigator in consensus with the experts. An inter scorer reliability of 95% was established, except

for the activity on identifying emotions as positive or negative, which yielded 87.5% agreement.

The scores on the posttest were compared to analyze the effectiveness of the program. Analysis of covariance (ANCOVA) was used to account for the pretest differences in the experimental and control groups.

Qualitatively, the responses of the adolescents were analyzed in the form of frequency and percentage tables, meta-matrices, case profiles and process charts (e.g., for problem solving or stress management) to gain further understanding of adolescents' responses on the different domains.

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This chapter presents the results and interpretations related to the needs assessment, the responses obtained on the life skills assessment tool, development of the life skills assessment tool, development and implementation of the life skills program, and evaluation of the life skills program.

The results are presented in the following sections:

Section A: Needs Assessment Study

Section B: Development of the Life Skills Assessment Tool

Section C: Development and Implementation of the Life Skills Program

Section D: Analysis of the responses obtained on the Life Skills Assessment Tool

- Statistical Analysis using ANCOVA
- Description of Qualitative Responses

### Section E: Development of Life Skills Manual for Educators

### Section F: Evaluation of the Life Skills Program

### Section A: Needs Assessment Study

In the development phase of the study, a needs assessment was conducted, wherein the sample group comprising experts, adolescents and their parents were interviewed. A brief summary of the needs assessment discusses the overall views of the group about adolescents and the ongoing changes during the period of adolescence. The highlights of the needs assessment are as follows:

• Definition / Characteristics of adolescents: The group perceives adolescence as a period of ongoing changes. Fathers stress on increasing demands of their children, while mothers are more worried about their changing personal nature