

# CHAPTER IV

## **CHAPTER 4**

### **DEVELOPMENT OF THE ADOLESCENCE EDUCATION PROGRAMME**

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#### **4.0 Designing the Adolescence Education Programme**

The study involved designing and execution of the Adolescence Education programme. The present chapter deals with the conceptualization of the Adolescence Education programme, its implementation procedure and the mode of evaluation of the programme.

Adolescence Education was defined in a comprehensive way and the components of Adolescence Education were identified. The content of the Adolescence Education programme were developed around the following major components:

1. Growing up in its biological, emotional, psychological and social dimension
2. HIV/AIDS
3. Drug abuse
4. Life skill Education

The programme was planned in 4 stages:

Stage 1: Analysis of the curriculum of IX std prescribed by Gujarat Secondary Board of Education

Stage 2: Designing of modules for imparting Adolescence Education

Stage 3: Implementation of Adolescence Education programme

Stage 4: Evaluation of the Adolescence Education programme.

#### **4.1 Analysis of the curriculum of IX std prescribed by Gujarat Secondary Board of Education.**

The curriculum prescribed by Gujarat Secondary Board of Education was studied in detail. The Standard IX textbooks of various subjects like Mathematics, English, Science, Social Studies and Hindi were analyzed in depth. Efforts were made to analyze the coverage of the curriculum in terms of catering to needs of adolescents.

#### 4.1.1 Criteria for assessment of the Curriculum

The Curriculum was analyzed in order to answer the following questions:

- Is the curriculum oriented towards the components of Adolescence Education?
- Are the learning experiences appropriate for the development levels of the learners?
- Do the content units provide relevant suggestions for teaching strategies?
- Are there a variety of learning activities?
- Do the units provide relevant suggestions for teaching strategies in accordance with the Adolescence Education contents?
- What sorts of learning activities are there in the textbooks that could be plug in points for Adolescence Education?

#### 4.1.2 Textbook Analysis

Analysis of the textbooks prescribed by Gujarat Secondary Board of Education for Std IX<sup>th</sup> revealed certain lacunas like:

- Adolescents special needs had no place or mention in the textbooks
- The textbooks in general paid little attention to the basic competencies that have to be developed in the adolescents,
- Largely the textbooks were theoretical and subjective. They did not classify the meaning of basic terms
- Facts were just biological facts and never paid attention to attitudinal development,
- Reproductive health issues were dealt in piece meal manner,
- Life skills were ignored

After carefully scrutinizing the textbooks and in general the overall curriculum it was considered necessary to reorganize the units in such a way as to incorporate the components of Adolescence Education in a logical and psychological ordering. The main focus was towards exploring the *Plug in points*, which served as the links of the curriculum with the broader dimension of Adolescence Education, which are never explicitly stated, in behavioural terms. This necessitated the identification of the suitable *Plug in Points* from the Textbooks, which formed links with the components of

Adolescence Education. After identifying these links the investigator designed the modules which would use these plug in points as effective medium to incorporate the elements of Adolescence Education via the prescribed curriculum.

#### 4.1.3 Plug in points in the subjects and Adolescence Education

**Table 4.1: Plug in points in the School Subject and Adolescence Education**

Subject	Sr. No.	Chapter	Plug in point	Component of Adolescence Education
Hindi	1.	Nirbhayata-Prose	Deals with short incidence of courage, determination and fearlessness	Dealing with problematic situation in life
	2.	Tulsi Dohawali-Poem	Doha's related to good and bad virtues, influence of company, love care etc	Friendship and role of peers in life
	3.	Samay ko badalta hua tu chala chal-Poem	Deals with the changes in life	Changes due to puberty and accepting those changes positively
	4.	Kaki	Story deals how one takes an impulsive action.	Decision making Critical thinking Family relations
	5.	Mother Teresa	Deals with her life and service to mankind	Empathy
	6.	Nirmala- Prose	Deals with child marriage and gender issues	Gender equality Skill of assertion
	7.	Bhagat Singh-Prose	Deals with his courage and struggle for freedom	Dealing with stress and other problematic situations in life
	8.	Kaante kam se kam mat bo-Poem	Stresses on dealing with every situation in life with positivistic attitude and adhering to values	Stress management
	9.	Everest par pehli mahila-Prose	Bachendri pal the first women to climb everst	Determination Gender roles

Table contd...

Subject	Sr. No.	Chapter	Plug in point	Component of Adolescence Education
English	1.	Man's true measure-Poem	Deals with man's true assets ie not who one is but what one is.	Strengths and weakness, potential of adolescents
	2.	A Madrigal-Poem	Deals with youth phase	Time management
	3.	The land where there were no old men-Prose	The lesson deals with importance and wisdom of old generation	Optimism and positive thinking, family relations
	4.	Laxmibai- The brave Rani of Jhansi-Prose	The lesson is based on life sketch of Rani Laxmi Bai	Gender equality
	5.	A mother's counsel-Prose	Lesson deals with a mothers advice to her children	Empathy
	6.	The Model Millionaire-Prose	The hero in Model Millionaire empathized with the Millionaire in disguise of a beggar and helped him	Empathy for persons with HIV/AIDS
	7.	Galileo-Prose	Lesson describes the achievements and life of Galileo	Motivation
	8.	Mrs Francis Mathews-Prose	Talks of importance of family	Family relations
	9.	Say the Right thing-Prose	Lesson is concerned with saying the right thing at the right time	Interpersonal communication Assertiveness
	10.	I have a dream-Prose	Deals with standing up for one's rights	Rights and duties. Opposing abuse and injustice
	11.	Playing the game-Prose	Lesson is concerned with empathy for old people	Interpersonal relations Empathy
Languages	1.	Grammar	Parts of speech Adjectives	Emotions Self awareness
		Debate topics		Gender roles Drug abuse Sex education Rights and responsibilities of

				adolescents
Subject	Sr. No.	Chapter	Plug in point	Component of Adolescence Education
Science				
Physics	1	Pressure	Explosion of balloon	Anger management Peer pressure, parental pressure
	2	Power	Fuse	Self control Maximizing potential, positivity and optimism
	3	Meting point and boiling point	Melting point and boiling point are fixed for every substance  Effect of impurities on boiling and letting point	Every individual has their own values system and individual differences exist so accept every one and build tolerance  Consequence of substance abuse, HIV/AIDS
	3.	Describing motion- Displacement	Displacement means difference between initial and final position	Puberty changes child become adolescent and then adult so changes take place
	4.	Uniform speed	Graph of uniform speed	Growth spurt in adolescence
	5.	Acceleration /retardation	acceleration is positive and retardation brings negative effect	Importance of time management and hard work with persistence
	6.	Force	Balancing forces  Interacting forces	Importance of maintaining balance in life, thinking before any action  Interpersonal interaction and communication
	7.	Friction	Opposing forces	How to pass hurdles in life and face challenges, positive thinking, decision making, assertion

**Table contd ....**

<b>Subject</b>	<b>Sr. No.</b>	<b>Chapter</b>	<b>Plug in point</b>	<b>Component of Adolescence Education</b>
	8.	Newton's third law	Cause and effect relationship	Impact of positive and negative action on life
	9.	Gravitation	Force of attraction	Infatuation, love, relationships
	10.	Waves	Equilibrium	Stability in life
	11.	Impulses	Impulses control	Emotions, feelings and Emotional intelligence
	12.	Heat	Intermolecular forces of attraction	Family and social life, cohesiveness, unity, love infatuation
	13	Light	Focusing  Reflection and absorption	Goal oriented behaviour – decision making skills  Tolerance and adjustment
	14.	Electricity	Resistance	Resisting peer pressure
	15.	Magnetism	Forces of attraction between opposite charges	Heterosexual friendships, infatuations etc.
		Sound	Role of sound in communication	Effective communication
<b>Chemistry</b>	1.	Properties of matter	Electron distribution in atoms- fixed number of electrons in each orbit Positive and negative charges	Accepting limitations in life Positive and optimistic feelings
	2.	Chemical bonds	Ionic and covalent bond	Interdependence on each other, interpersonal relations,
	3.	Chemical compounds	Chemical reactions  Corrosion	Hormones and pubertal changes Drug and their ill uses Dealing with Unfavorable circumstances. Handling peer pressure assertion

Subject	Sr. No.	Chapter	Plug in point	Component of Adolescence Education
	4.	Classification of elements	Norms and rules for classification	Life skills
<b>Biology</b>	1.	Systems of body	Skeletal System  Reproductive system and organs	Muscles and stress-relaxation techniques  Hormonal changes  Sexual health HIV/AIDS and STD's Reproductive cycle
	2.	Structure of Cell and cell division	Virus Mitosis meiosis	Individual differences, differences in males and females Genetics characteristics HIV Virus
	3.	Modification	Adaptations	Adjustment, family life structures
	4.	Heredity and genetics	Chromosomes	Gender issues
<b>Mathematics</b>	1.	Set operation	Properties of union and intersection	Gender differences Sexual health
	2.	Trigonometry	Angle of elevation	Forward looking, goal oriented
	3.	Statistics	Graphs, measures of central tendency	Sensitizing through graphs regarding increase in HIV/AIDS cases, population explosion etc
	4.	Inequalities		Individual differences gender discrimination
	5.	Logarithms	Positive number is chosen as a base in log	Positive values
		Ratio	Numerical on ratio	Gender discrimination
		Mathematical operations	Plus, minus	Positive and negative influences of peers



Subject	Sr. No.	Chapter	Plug in point	Component of Adolescence Education
Social Sciences	1.	Over population	Population growth reasons	Population education strategies
	2.	Theories of evolution	Genetic and environmental variations	Variations in human beings
	3.	Struggle for existence	How evolution favours survival of the fittest	HIV/AIDS sensitization Dealing with abuse
	4.	Rights and duties	Understanding the different laws, fundamental rights, directive principles	Rights of adolescents
	5.	Problems of my country and their solutions	Over population, female foeticide, declining ratio of females.	Gender Sensitization.
	6.	Introduction to economic and human wants	Resources and wants.	Desires, wants and needs in adolescence

## 4.2 Designing of modules for imparting Adolescence Education

The modules for Adolescence Education programme were designed by the investigator after identifying the plug in points and the linkages with Adolescence Education components.

### 4.2.1 Definition of Module

A module is a set of learning opportunities organized around a well-defined topic, which contains the elements of instruction, specific objectives, teaching learning activities and evaluation. Module is self contained, self sufficient, self-pacing and self-learning by nature. Module for the present study contains a set of well-defined systematically organized learning activities with behavioural objectives.

### 4.2.2 Criteria considered for deciding on the structure of the Modules

Adolescence Education programmes are more successful if they:

- Accurately identify and understand the group to be served

- Involve adolescents, teachers, educationist as well as parents in the designing of the programme
- Remove policy barriers and change providers' prejudices
- Require minimum resource
- Easy to comprehend and implement

Keeping this in mind the investigator considered the following criteria before finalizing the modules:

1. What are the Adolescence Education programme objectives?
2. Are the objectives realistic and achievable?
3. How will the achievement of the objectives promote Adolescence Education?
4. What evidences are available to support and justify the programme?
5. Which design of the modules is most likely to provide the teacher with the most efficient ways to initiate and implement the programme?
6. Which learning experiences are necessary to assist the learner in achieving the objectives?
7. Are the curriculum materials in accordance with the requirements of the programme?
8. Is the format of the modules functional and learner centered?
9. Do the modules suggest a progression of learning?
10. Are there opportunities for learner's choice and motivate learners?
11. Do the module provide the teacher with sufficient information regarding the topic?
12. Are the suggested learning resources appropriate, accurate, timely, attractive, usable and available?
13. Do the activities encourage active rather than passive learning?
14. Do the learning activities promote comprehension?
15. Is the content of the module consistent with the adolescent age group needs?
16. Are the modules based on acceptable psychological and educational principles?
17. Which informational content will assist the learner to develop appropriate concepts relevant to Adolescence Education?
18. What do the curricular guides need to accomplish?

19. How will they achieve their purpose?
20. What information does the teacher need to effectively assist the learner through the learning experiences?
21. Will the teachers and educators use the module?
22. What sort of training is required to efficiently use the modules to the fullest?
23. To what extent is the design of the module flexible so that the teachers and learners can make adaptations readily as occasion arises?
24. How would the achievement of the objectives of the modules be evaluated?
25. What are the bases for evaluating the modules success?

#### **4.2.3 Validation of the modules**

The investigator before preparing the modules had done a detailed study regarding the needs and characteristics of the target population. Literature review and studying various reference modules enabled the investigator to gain an insight regarding module preparation. The investigator reviewed each module after its completion. The modules were analyzed by the experts and professionals working in the field of adolescence for establishing their relevance. Discussion was held with experts to modify them.

#### **4.2.4 An Overview of the various Modules**

Module 1: **Self Awareness**

Module 2: **Puberty**

Module 3: **HIV/AIDS**

Module 4: **Say No To Drugs**

Module 5: **Decisions Making**

Module 6: **Being Creative**

Module 7: **Critical Thinking**

Module 8: **Peer Pressure**

Module 9: **Effective Communication**

Module 10: **Interpersonal Relations**

**Module 11: Problem Solving**

**Module 12: Emotional Intelligence**

**Module 13: Stress Management**

**Module 14: Gender Issues**

**Module 15: My Rights**

**Module 16: Time Management**

**Module 17: Pandora's Box And Answers**

#### **4.3 Implementation of Adolescence Education programme**

The programme revolved around the core components of Adolescence Education namely growing up, HIV/AIDS, drug abuse and life skills. To implement the programme the various strategies were adopted.

##### **4.3.1 Workshop on Adolescence Education for Teachers**

A training workshop for 2 days was conducted for the secondary school teachers of the selected school who were to implement the Adolescence Education programme. The workshop serve as an in-service training programme and was important considering the following reasons

- The curriculum of any Teacher Training Institutes is inadequate to prepare teachers for Adolescence Education as they barely touch upon issues central to adolescent development. Teachers with limited training in Adolescence Education need in-service training.
- The teachers are in need of assistance while in service to make adaptations in regular teaching to meet the needs of adolescents and become more aware of their role within the Adolescence Education programme.

##### **Aim of the workshop**

1. To provide the teachers with goals of Adolescence Education.
2. Scope of Adolescence Education
3. To provide teachers with the most effective methodologies to be used in Adolescence Education

4. To provide teachers with variety of suggested leaning activities related to and directed towards achieving of goals of Adolescence Education.

The first day of the workshop aimed at enabling the teachers to recognize the criticality of adolescent phase, understand the components of Adolescence Education and appreciate their role in implementing the Adolescence Education programme .The workshop started with questionnaire administered to the teachers to know their awareness and sensitivity regarding the concept of adolescence.

**Topics covered during the Day 1 of the workshop:**

The workshop dealt with the following components:

1. Nature of adolescence phase of life
2. Physical, physiological, psychological emotional, and sociological dimensions of adolescence
3. Importance of adolescence
4. Profile of Indian adolescents
5. Body image concerns in adolescents
6. Cognitive development
7. Peer group interactions
8. Heterosexual relations
9. Common problems of adolescents
10. Role of teacher in the life of adolescents
11. How should teachers deal with adolescents?
12. Life skills
13. Concept of Adolescence Education
14. How to impart Adolescence Education
15. Plug in points from different subjects which link to topics coming under Adolescence Education

**The second day of the workshop was devoted to:**

1. Analyzing the various textbooks by the subject specific teacher
2. Identification of the plug in points in the textbooks
3. Planning of suitable curricular and co-curricular activities for imparting Adolescence Education
4. Selecting suitable teaching- learning strategies
5. Understanding the modules on Adolescence Education developed by the investigator.
6. Making annual calendar. This calendar took into consideration all the respective functions, events, which the school observed along with the general layout of the content to be covered within one academic year along with the host of curricular and co-curricular activities.
7. Monthly and weekly calendar for different subjects and activities were designed keeping in mind the correlation amongst the various subject topics and their direct or indirect link with the components of Adolescence Education.

**4.3.2 Administration of Questionnaire to the Students**

Before the modules were implemented in the classroom settings a questionnaire was administered to the students to know their perception about teachers, school climate, peers, their problems, needs and issues etc. This necessitated in making further modifications and adjustments in the already designed modules so as to suit the requirements.

**4.3.3 Orientation to Teachers regarding use of the modules**

Before the module implementation actually began, the teacher were given orientation by the investigator regarding each instructional module, namely its theme, purpose, structure, organization, uses and instructional procedures to be followed for the course. Teachers were advised to read the module before hand and also advised to take help of investigator in case of any difficulty. The investigator was always in touch with

the teachers to provide all types of classification regarding each module and the procedures to be adopted in organizing instruction for the modules sessions and activities.

#### **4.3.4 Module implementation**

The teachers after being oriented regarding the usage of the modules implemented the modules sessions and activities in the subject specific classes. Since the modules were planned using the plug in points from the various topics coming under different subjects, the subject specific teachers implemented the particular modules when teaching the related topic. The modules were interwoven into the teaching learning methodology and when the topic proceeded the different Adolescence Education components as a part of the hidden curriculum were transacted. Changes were made in the teaching of the topics so as to suitably accommodate the modules and care was taken to strike a balance between teaching the theoretical topic and the components of Adolescence Education via the topic. The teachers were given a record book to record their observation regarding the way the module proceeded. The teachers had to record the student's reaction to the different components of the modules and also note down the difficulties faced by students at any phase in learning through modules. Along with this they were also requested to make comment on the practicality of the modules in real classroom situations.

Besides this the investigator used participant observation to assess the achievement of the module objectives, student's interest for modules in classroom, feasibility of using the modules in classroom, success of modules to stimulate student's interest etc.

#### **4.3.5 Co curricular strategies**

Apart from the implementation of the components of Adolescence Education via the academic sessions; co curricular activities were also an integral part of the programme. Assignment classes were given to the researcher (two to three times every week) for conducting co curricular sessions. Initially the students were under the influence that the researcher was their new assignment teacher and presumed that whatever was taught to them was a part of the assignments which they were supposed to do. Initially they were reluctant to freely express their views and opinions. However they were soon convinced

that the interactions and discussion in class would be restricted to their class and not go beyond it. After such initial hiccups within a month the students became friendly, interactive and enthusiastic about the sessions. They realized that these classes were exclusive. Regular teachers had also started using the modules. This made them feel that there were indeed going through a different kind of learning which was in contrast to their regular academics. With the passage of time the students started looking forward to the classes. The following techniques formed a part of the co curricular activities:

### **Focused Group discussion**

This enabling activity was included with the main purpose of developing abilities like analyzing, synthesizing and critically examining issues. Such focused discussion help individual to gain strength regarding their view points, interact with others and review and reframe their stance These discussions were used to teach specific concepts in particular unit. A debating topic or a burning issue was presented to class and questions were raised as a start mark of discussion. The student divided into groups and discussions were held. The group members chose one student as representative. Later presentations were held wherein the representatives of the groups presented their standpoint and the sessions were held open for further debates.

### **Following were the topics of Focused Group Discussion**

1. Should Reproductive Health Education be imparted to adolescents in schools?
2. Extent and limit of friendship between boys and girls
3. Role of education in adolescence
4. Decision making in adolescents
5. Degree of freedom to be given to an adolescent
6. Menstrual distress
7. Gender Equality

### **Question box**

A closed box was kept in one corner of the both the IXth std classroom at the start of the programme .The students were free to write down about their problems or ask



certain questions as well as doubts on a sheet of paper and put in question box. Anonymity and confidentiality was assured. Once every week the question box was opened and the problems, questions etc were presented before the class followed by discussion to reach out to some solutions or clarifications. At times the help of experts was also taken to provide them authentic and appropriate solutions.

### **Guest lectures**

Apart from the modules and co-curricular strategies some lectures and sessions were also arranged during the programme.

### **HIV/AIDS SESSION**

A talk on HIV/AIDS was held conducted by Gynecologists of local Hospital who had the experience of being actively involved in Adolescence Education Programmes. The specific objectives of the session were to enable the adolescent students to:

- Be able to define the terms HIV, AIDS, STDs.
- Explain the cause of AIDS/STDs.
- Relate HIV infection to STDs and AIDS.
- Know the ways AIDS is not transmitted.
- Develop the habit of positive living as a group member.
- State the different stages of HIV infection.
- State ways of prevention and control of AIDS.
- Develop the skills that will enable learners to decide and act in the prevention of HIV infection.
- Explain the effects of AIDS in relation to family, community and the nation.
- Identify beliefs and practices, which promote or control the spread of HIV/AIDS.
- Develop a sensitive and empathetic attitude towards people with AIDS.
- Describe ways of providing care and support to persons with AIDS.

Apart from this students were subjected to the module on HIV/AIDS. A pre-test posttest held established the extent of the students learning.

Drug Sensitization Session was also held wherein talk was given by experts from NGO (Kripa Foundation) working in the area of drug abuse. The session revolved around the

exposing the students to the harms of drugs, the potential risks and how to not fall prey to substance abuse.

#### **4.4 Evaluation of the Adolescence Education. program**

To ascertain the feasibility of the programme, teacher's interview and the effectiveness test were used to provide data regarding the programme feedback.

##### **4.4.1 Qualitative assessment of modules by teachers**

The effectiveness of each module and its different components was assessed on basis of reaction of teachers and students. Before every module began the teacher was given orientation by the investigator regarding each instructional module. Teacher's recorded the student's reaction to the different components of the modules and also noted down the difficulties faced by students at any phase in learning through modules instruction. Periodical assessment was done through observation schedule for classroom sessions and co-curricular activities as well as observation of the classroom climate, interaction between teacher and students, student participation in activities etc.

##### **4.4.2 Qualitative assessment of modules by students**

Periodical meeting were held with the target sample of adolescents to assess their viewpoint on the overall programme in general during free time and recess break. A record was maintained regarding their opinion about the modules, which ones they preferred, what was their level of comprehension before and after being subjected to the modules, what changes they observe in themselves, what kind of thought process is shaping up, impact on their daily lives etc.