

Chapter 5

Designing Educational activities

CHAPTER 5

DESIGNING EDUCATIONAL ACTIVITIES

5. Introduction

This chapter presents collections of learning experiences to be used to explore the Coping Skills for 21st Century:

Objective 2: To develop educational activities to explore coping skills for 21st century among students of secondary level

The objective was studied by reviewing literature and analyzing the data collected through focused group discussions, brainstorming sessions, interviews and informal interactions with the principals, teachers, educationalist, prospective teacher educators and research scholars.

5.1. Outcome of the Literature Reviewed

Some of the reflections from the literature for designing Educational Activities are as follow

- Fertile and robust education is always created, rooted in the physical and cultural soil of the child, and nourished through interaction with parents, teachers, fellow students and the community-NCF (2005)
- To develop 21st century skills, the scholastic subjects of school i.e. Science, Mathematics, Languages and Social Science and their integration with the environment, society, health and hygiene, and global awareness- Framework for 21st Century learning (2007)
- Interconnectedness of scholastic subjects by softening of subject boundary, plurality of curriculum inputs and subject matter that could incorporate local knowledge and traditional skills- NCF (2005)
- Stories or narrations are the best mean for developing language related skills. Story can help in teaching of History- Badheka (1932)
- Cooperative education is effective in developing Interpersonal skills- Morton (1993)
- Performance-based approach is found to be effective for critical thinking skills- Strom (2010)

- Experiential, Experimental, Project based Learning (PBL) and Participatory learning to be integrated with scholastic subjects for life skill development- Galagali (2008), Singh (2008) and Zimmerman (2010)
- Inquiry & Critical pedagogy based instructional approach is best fitted for skill development- NCF (2005), Olsen (2010) and Hillman (2012)
- Video games could be used to for creative thinking, critical thinking and system thinking skills- Sardone & Scherer (2010)

Thus, the studied literature suggests that the Coping Skills for 21st Century should be developed within the cultural and social soil of the child. Students should be engaged in the learning process and able to construct own meaning. Thus, Constructive Learning Approach, such as, Inquiry & Critical pedagogy based should be emphasized within the existing scholastic subjects but the subject boundaries should be softened.

5.2. Outcome of the Brainstorming Session-1

The focus of the first Brainstorming session was focused to use Social Networking Services as facilitator to classroom. The outcomes of the FGD are as follow

- There is a need to develop Networking culture, so it is essential to learn;
 - What to Network?
 - When to Network?
 - How to Network?
 - How often to Network?
- Social Networking Services could be integrated in the classroom processes.
 - Social Networking ensures wider & quick dissemination of the circulars or communications.
 - Social Networking makes the reach of the students easy.
 - Online discussion on Social Networks could be used for Guidance & Counseling and to solve immediate queries.
 - Moodle is one and all complete solution for classroom processes.
 - LinkedIn could be used by the teachers to find out human resources & new opportunities.
- Social Networking Services could be used in facilitating the learning
 - SNS expands the horizon of classroom, wider the resources of knowledge and keep up to date with knowledge.

- Reflective dialogue, opinion, and survey could be conducted through Social Networking Services (SNS) to spread awareness and sensitize toward the societal issues. SNS also helps to raise inner consciousness.
- Classroom 2.0, Merit Nation, Toppers.com and Coursera facilitate the learning.
- Smartphone Applications, such as, Wikipedia, Discovery News, Net Geo Fans, History TV18, Google Play Newsstand, Google Street-View could be used to keep updated.
- Dicionary.com could be a handy app for the students.
- Social Networking Services could be a mean of curriculum transaction
 - Blogs, Google drive, My Space, Box, Dropbox, YouTube and One Drive could be used to share series of lectures, reference materials, innovations, creative works, audio-visual Materials. Such one-way communications could be assisted by Facebook, Whatsapp and Tweeter for its wide spread.
 - Various Communities, Pages & Group on Facebook, Blogs and Whatsapp can involve and invite students as per their interest. Further to have involvement and active participation of students, posts and sharing should be followed by time to time follow-ups and Reflective and Corrective Feedbacks.
- Use of Social Networking Services develops skills, such as, reflective skills, reasoning skills, communication skills, collaboration skills, creative thinking skills and critical thinking skills.

5.3. Outcome of the Brainstorming Session-2

The session focused to cope with the challenge- Devoid of Beauty of Nature. The outcomes of the session are as follow

To cope with the said challenge, learning experiences could be provided for the three stage, viz. to sensitize the Nature, to spread awareness toward Nature and to realize the nature.

- To sensitize the Nature
 - Survey of the surrounding place could be taken up, where students can explore the eco-system.

- The School can provide some space where children can plant a tree & a sapling and also give opportunity to adopt them where they will take care of them.
- The School can arrange excursion at various places frequently, where the child find diversified learning environment either inside the city or outside city.
- To spread awareness toward Nature
 - There is a need of de-compartmentalization of subject areas and integrate wholistic content with Nature and Natural Phenomenon. Here teacher can relate geography with ethnography, Nature & Natural Phenomenon with festivals.
 - Teacher can explore the possibility to teach various topics of different Subject within Nature, where teacher can teach about diverse species existing in Nature, viz., animals, plants, insects, etc.; types of root, leaves and its shape; through geometrical shapes made by branches angles could be taught.
 - Students learn through direct experience from surrounding. Exposure should be provided to acquire direct experience of Nature and there should be congruence between their experience and classroom transaction. Further, where the direct experiences is out of reach, vicarious experience or virtual experience can be arranged that may be videos, pictures, encyclopedia, Google map, etc.
 - Eco Club and Nature Club could be formed in the school where students can organize some workshops, activities, exhibition, symposia, projects, lecture, excursion etc. to sensitize the importance of nature for human betterment and conduct extension activities.
- To Realize the Nature
 - There is a need to inculcate the value of observing, inquiring, appreciating and expressing the Nature and its components since childhood when the child start exploring their surroundings.
 - Allow children to interact with people around them, as a result of interaction they will construct their own knowledge about nature and natural phenomenon.

- Provide exposure and opportunities to be in nature and let them perceive and explore the nature with their own perspective.

5.4. Outcomes of the Interviews

Through various interviews the following ideas has been emerged:

- Schools are doing various activities, but the focus is missing and they are for the completion shake. There is a need to refocus the activities.
- There is a need to manage curriculum transaction process. Teacher should identify difficulty level, interdisciplinary aspects of the content and interest of the students. Based on the identification learning experiences should be designed. For example, the easy content could be given for self study or assignment work, moderate difficult content could be partially explained and given for the assignment and practical based content could be given for projects.
- Diversified learning experiences could be given to sustain students' interest.
- The students had dissected their toys and they had enjoyed that task. If they are given such activities where they dissect the electrical instrument and re-assemble it again, they will learn about working of various parts and interdependency of functioning.
- From the above activity, social aspects and historical progression could also be studied.
- The bulletin board is part of any school, very often it is managed by some of the students. A task for decorating the board could be given, where they will decorate the board based on the theme.
- Some reflective tasks or discussion could be a part of the daily activities. Where the students will reflect on any of current issue.

5.5. Outcome of the FGD 1

The FGD focused on consolidating & validating the drafted learning experiences. Where, suitability of the activity and expected outcome were discussed and incorporated in the Educational Activities. Following tables, viz. Table 5.1, Table 5.2 & Table 5.3 covers the major outcomes of the FGD 1.

Table 5.1: List of Daily Activities

SRN	Activity	Coverage of Activity	Expected Skills	Structure of Activity	Remark
1.	Yoga & Meditations	For 5-10 minutes of yoga practice i.e. Surya Namaskar, Meditational music, AUM	Self Management Self Directional Resilience	Individual Time: 5 min	Non Scholastic @ Morning Assembly
2.	Bulletin Board/Bulletin Board Decoration	Pasting creative work (Poems, Story, Advertisement, Slogans, Art, Craft) prepared by students	Creative Thinking Communication	Group Informal Time: 5 min	Co scholastic (in Zero period)
3.	News in Trends	Reflection (present scenario, what could be significant, background etc.) on news related to Environmental, Politics, Science, Economics, Trade & Business, National-International affairs, Local affairs, Local affairs and Trends, Trend	Info-savvy skills Reflective Thinking Critical thinking	Group Informal Time: 10 min	Co scholastic Multidisciplinary Presenting top news with its significance
4.	Reflection on Social Issues	Reflection (how it emerges & progress, what are the probable causes, social influence) on Social issues such as Health, Hygiene and Sanitation, Childs Rights/Human Rights, Women Empowerment, etc... Some of the points are: a. Swatch Bharat: Where to Initiate? b. Nirbhaya: Is it a reflection of our Society? c. Women are really empowered? d. Hand Sanitizer: An illusion of Swatch Bharat	Info-Savvy Skills Reflective Thinking Critical thinking Skills of Acceptance Skills of Adaptability Social Responsibility Communication	Group Informal Time: 10 min	Interdisciplinary Group Discussions was conducted among groups
5.	Latest facts in Science, Technology & Medicine	Information of Latest discoveries & Innovations in the field of Science & technology, Scientific facts, ongoing Researches for Human Development. Science-Technology-Society: Students are expected to reflect by defining the significance	Info-savvy Communication Reflective Thinking Critical Thinking	Group Informal Time: 5 min	Interdisciplinary Any member form a group will present using PPT

6.	My Life is My Message (Reflection on facets of Life of well-known persons)	Reflection on life & contribution of our freedom fighters, political leaders, social reformer, scientist, economist in Making India	Info-savvy Information Processing Reflective thinking Creative thinking Communication	Group Informal Time: 5 min	Interdisciplinary
7.	Narrations & Story Telling	Stories of Tolstoy, Panchtantra, Vikram-Baital, Sudha Murthy that promote creative thinking, critical thinking on social issues, environmental & social responsibility. Narrations of the events and Story completion	Communication (listening, Narrative)	Individual Time: 15 min	Co-curricular Students were asked to narrate incidences Stories were given for completion to the logistic end
8.	De-assemble & Re-assemble	De-assembling & re-assembling of electrical/electronic instrument like fan, mixture grinder, mobile etc. and the activity would be followed by social, civic, scientific, environmental aspects.	Management System Thinking (interconnected and interrelated function of parts to whole & vice-versa) Problem Solving Social Responsibility Resilience	Group Houses (any free time)	Interdisciplinary
9.	Farming & Gardening	Within provided space some crops, vegetables, flowers, meditational plants could be sown and maintained thorough out the programme.	Self directional Info-savvy Management Communication Thinking skills Problem Solving Social Responsibility	Group Houses (any free time)	--

10.	Diary writing	Listing to-do task & planning for the same, Express experiences & feelings Write anecdotes, important moments etc.	Self Management Self Directional skills Reflective skills Creative Thinking	Individual (any free time)	Diary is own free space for expression
11.	Reflective Note	Reflection on completed task, incomplete task, SWOT analysis	Self Management Self Directional skills Critical thinking Reflective Thinking	Individual (any free time)	--

Table 5.2: List of Weekly Activities

12.	Presentation & Scientific Projects	Projects & its presentation or Demonstration of the content related topics. Projects could be: a. Preparing Model b. Preparing Hydraulic System c. Botanical Survey of the school premises d. Creature around us (Survey)	Science Process System thinking Synergy Research Skills	Group (Houses) Time: 3 hrs @ Monday	Scholastic After the surveys they were asked to classify and categorize them.
13.	Mathematics & Me	Basic mathematical projects: a. Find the area and volume of the things around you b. Circle of Mathematics c. Nature and Mathematics		Group (Houses) Time: 2 hrs @ Tuesday	Scholastic & Interdisciplinary For b. & c. Focused Group Discussion was carried out
14.	Bulletin Board Decoration	Decorating flannel board based on the theme given. The themes could be a. Science and Contemporary Society b. Dream India at the Freedom & Today's India c. Harvesting Festivals of India d. India Today & Tomorrow	Creative Thinking Critical Thinking Communication Synergy Human relationship Social responsibility	Group (Houses) Time: 2 hrs @ Wednesday	Interdisciplinary

15.	Geography, Ethnography & Culture	Exploration to various places, (virtual or actual) Establish correlation of their living, culture and geographical conditions.	Skills of Acceptance Skills of Adaptation Social responsibility Human relationship Synergy Info-savvy Communication Creative thinking Research skills Learning skills	Group (Houses) Time: 2 hrs @ Thursday	Interdisciplinary
16.	Sports, games & Commentary	Commentary of the game they play, such as, Cricket, Badminton, Athletics, Kabaddi, Kho-Kho. The game was pre-decided and the house members have to collect previous records and related information. The house for the commentary was selected through lottery method.	Research Skills Info-savvy Critical thinking Reflective thinking Communication Self Directional Skills of Acceptance Synergy	Group (Houses) Time: 2 hrs @ Friday	Curricular One house members are expected to do commentary, wherein two members will do live commentary and rest of the house member will write the observations
17.	Social Visit & Social Awareness	Once in a week excursion to be held at nearby places (Historical Places, River site, Slum, Public places, palaces, fields, etc.) and exploring to new peoples, ideas, life standards, work situations etc. Social Awareness through Drama, Door to Door Campaign, Poster Presentation, Role Play and Speeches	Acceptance Adaptation Social responsibility Human relationship Synergy Info-savvy Communication Creative thinking	Group (Houses) Time: 3 hrs @ Saturday	Interdisciplinary Groups are expected to reflect upon experiences and present the work done using Media

Table 5.3: List of Summative Activities

18.	Book Review	Review of book in terms of reflection on the content of the book, message of the book, identification of leading character, problems of the character, addressing the problem	Study skills Critical thinking Creative thinking Learning skills Communication	Individual	Life of A.P.J. Abdul Kalam Gandhiji, Milkha Singh Siddhartha Vivekananda Tagore Arunima Sinha Books: Sudha Murty Sorath ni Rashdhar Bhagwat Geeta
19.	Auction	Class room auction used as socio-metric tool to know the preferences. They have to buy their members for the team within a given conditions.	Management	--	--
20.	Know your Service Providers (Civic Project & Presentation)	Small project (Action research) on some societal issues, human rights violation, child rights violation, ethnic discrepancy, health & sanitation problems etc. and its remedy in form of awareness programme.	Skills of Acceptance Adaptation Social responsibility Human relationship Synergy Info-savvy Communication Creative thinking Research skills Learning skills	Group	Interdisciplinary Hawkers' Project was given. The students had studied life of hawkers in terms of financial status and efforts to meet life ends.

(Self Directional skills, Learning Skills, Adjustment Skills, Human Relationship skills, Skill of Synergy are expected to develop)

5.6. Collective Views on Activities

The data collection in Shannen School, Vadodara (2014-15) was done during December 2014 to March, 2014. In this time December 2014 was spent for building rapport and observations. The programme was planned and implemented for two complete months of January-February 2015. The spare time was planned in month of March 2015.

Out of the eleven daily activities, seven activities, viz. Yoga & Mediation, Bulletin Board, News in Trends, Reflection on Social Issues, Latest Facts in Science, Technology & Medicine, De-assemble & Re-assemble and Narrations could be implemented. The frequency of activity was less. News in Trends could be implemented three times in morning assembly. Reflection on Social Issues, Latest Facts in Science, Technology & Medicine could be done four times in morning assembly and could manage only one session for De-assemble & Re-assemble.

Instead of Farming and Gardening Tree plantation was made a part of 'Farewell to Standard X' programme. Standard IX students presented sampling of Mango Tree, Neem Tree and Banyan Tree with a message to earn like mango tree, help like neem tree and grow like banyan tree. The Standard X students (2014-15) were asked for tree plantation in the school campus as a memento/return gift to the school.

All the weekly activities could be implemented once. As the excursion was not manageable in the busy school days, students were asked to prepare a play on "Ganga Suddhikaran" on the spot. The formal groups (i.e. Houses) members had prepared and performed the play within fifteen minute of time.

For the summative activity, Hawkers Project was given, wherein they were brought to the Kamati Baug Hawkers zone and spent four hours with the hawkers. Where the students extend their helping hand to the hawkers and also studied about their life (refer Appendix H for objectives and data collection tool). Book review was done by only one student. The student has reviewed an autobiography of Arunima Sinha.

For the purpose to know group dynamics, Auction was held, where students have to purchase the team members. The conditions underlay were: **a.** a team formation should be of 5-5-6-6 members, **b.** maximum price for any group member should not exceed to

80% of the allotted, c. no student should remain unsold, but they can skip if two out of four agree for.

The activities are aimed at exploring the students to diverse learning experiences and engaging them in learning to process. At the same time the skills could be observed.

5.7. Discussion

The activities were designed based on learning to learn approach of teaching. Most of the activities were group activities. The group activities were intended to promote social skills and interpersonal skills i.e. communication & collaboration.

For data collection, the time chosen were October 2013 to March 2014 and December 2014 to March 2015 in Ankur Vidhyalaya, Dasrath (GSEB) and Shannen School, Vadodara (CBSE) respectively. During those days, time schedule of the schools was tight. The schools were engaged in preparation of Annual Day, Formative assessments and Days celebration. A researcher strongly suggests that, data collection for the interventional research should be done in the beginning of the academic year. In GSEB affiliated schools, time is not a constraint.

The students found such activities interesting. Students opined that they were doing subject specific activities as a part of CCE but they had not connected two or more subjects or theme in a single activity, such as, language learning in Sports, connecting festivals with geography.