EFFECT OF SKY PRACTICES ON WELLNESS AND PERFORMANCE OF STUDENTS IN HIGHER EDUCATION

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Submitted by

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CHAPTER III

CHALLENGES FACED BY STUDENTS RELATING TO WELLNESS AND PERFORMANCE

3.0 INTRODUCTION

From the review of literature, the following insights on the challenges of students were captured, which require further understanding with reference to specific target group of the research, the students in higher education:

- Pursuing studies and career in line with aptitude or vocational interests: Youth are the most powerful resource on earth with an ignited mind. They must be encouraged to dream for their future by the parents and teachers. Their job satisfaction, personal fulfilment, and creative realization depends on the career choice made with one's aptitude, interests, and capabilities. However, they are not empowered and equipped to pursue careers in line with their aptitude and vocational interests. The parents make higher demands on their children to study hard and get good marks or ranks to fulfil their aspirations. Such demands from the parents and the society exert stress upon the youth. Hence, they are unable to articulate a dream or goal for their career and life.
- Physical activities & exercises: The development of brain and neurological system happens during teens and the early twenties lays solid foundation for adult health. Studies have shown that physical activities and exercises increase oxygenation, and therefore, attention and memory. Due to the increased emphasis placed on academics, laziness and distractions, youth engage in significantly less physical activity or exercise.
- Nutrition: The physical makeup of the brain is affected by nutrition. The brain needs energy to work properly, which it gets primarily from food. A student's nutrition leads to enhanced concentration. The choice and intake of food of youth is determined by socio-economic status and influenced by the media, family, peers.
- Sleep: For effective consolidation of what is learnt in the class, sleep is important. During all stages of sleep, the mind and brain are working to process new memories, consolidating them into long-term storage and integrating recently acquired information

with past experience. Memory consolidation is dependent on sleep—specifically, REM (rapid eye movement) sleep, in which certain neurotransmitters are present that help preserve memory.

- Attention and Memory: Effective learning is realized when the brain can pay attention while listening or reading and subsequently remember what it has been exposed to. Attention can be either focused or peripheral. Memory can be sensory, short-term, working, and long-term. Youth lack all these factors which impacts their attention and memory that are essential for learning. This has an influence on the executive functioning involving the conscious, purposeful, and thoughtful activation, orchestration, monitoring, evaluation, and adaptation of strategic resources, knowledge, skills, and motivational states to achieve a desired goal. Attention and memory are part cognitive functions of the mind influenced by Nutrition, Physical exercises, Quality sleep. Youth have challenges with all these factors.
- While "Good" stress (eustress) increases attention and aids learning, "Bad" stress hinders learning. Moderate stress (eustress) can enhance learning by putting the body in a prepared state through the release of hormones.
- The lifestyle of youth has significantly changed as a result of increasing urbanization, individualization, and globalization. During adolescence, the peer group often replaces the family as their primary social focus. At this stage of their social development, friendship, infatuation, love, personal identify and social success play an important role. Emotions that transfer between individuals through their communications and interactions are called ‘emotional contagion’. This causes others to experience similar emotional states leading to social interactions, and collective behaviour happens in social networks.
- In a connected world, exposure to media and social networking shapes the culture of the youth. Social networking sites have several negative impact on the youth as they are highly time consuming, leading to waste of significant productive time. This also shortens attention span. Their engagement in social media leads to starvation of sleep, which in turn can affect their attention, memory, and eventually their learning.

3.1 IMPACT OF THESE CHALLENGES ON YOUTH

The following are the impact faced by the students due to the challenges they encounter during their studies.

- They lack active engagement during their studies as they pursue the studies based on the parental aspiration than on their own aptitude.
- Lack of physical exercises and activities causes laziness and distractions from working towards their goals.
- Lack of nutrition affects students' brain and hence the concentration and their learning.
- Lack of sleep and sleep disorders of the students affects their attention and memory which in turn affects their learning and performance.
- High demands from the parents and the society causes stress to the youth which affects their performance.
- Peer group often replaces the parents as a social focus and hence affects the harmony with parents.
- Prolonged engagement of students in social media leads to starvation of sleep, which in turn affects their attention, memory, and eventually their learning.

3.2 QUALITATIVE STUDY TO DETERMINE THE CHALLENGES

Understanding the challenges of the target group, the students in higher education would need qualitative research with the following features:

- Understanding the experiences and perspectives of students in higher education in their own context and the environment.
- Focus group discussion to collect data on the challenges faced by the students with carefully selected groups of students using specific questions or issues related to the challenges captured from literature review.

- Discussions with multiple groups of students would generate large amount of language data, it would require a structured framework to process the language data to arrive at the insights and hypothesis.
- FSDP was chosen to process language data create new model of hypothesis, which opens up new direction for research and understanding.

3.3 FSDP TO DETERMINE THE CHALLENGES OF STUDENTS

To determine the challenges faced by the students in higher education, the Five-Step Discovery Process as shown in Figure – 3.1 was used for qualitative analysis.

FIGURE 3.1

FSDP TO DETERMINE THE CHALLENGES OF THE STUDENTS

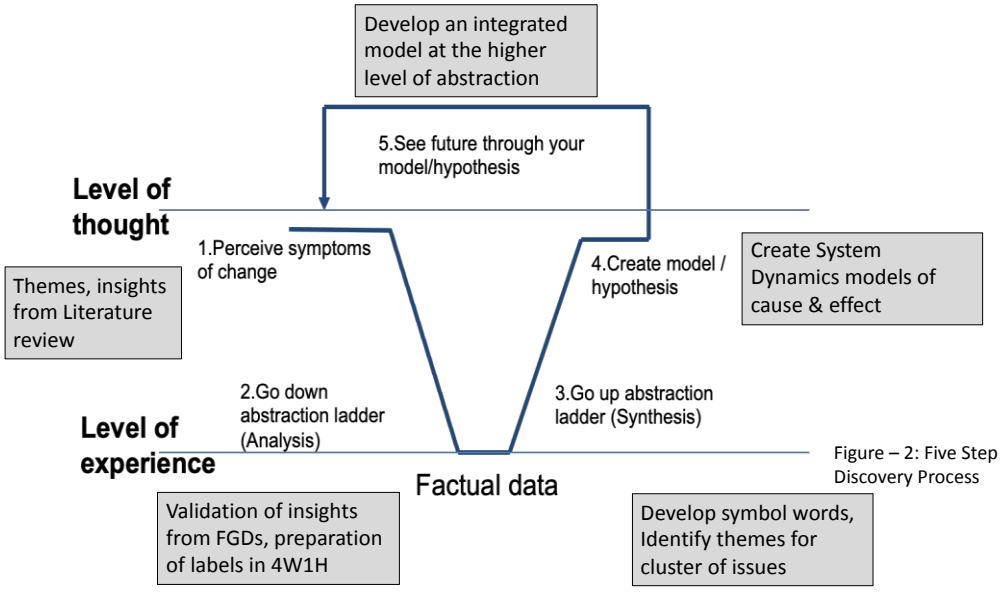


Figure – 2: Five Step Discovery Process

The five steps of the FSDP framework are described as follows:

Step 1: Perceiving the problem

A detailed review of the literature helped to perceive the symptoms of the challenges faced by the youth for further investigation. These insights from literature were generic for the youth in general at the level of thought. It is necessary to specifically understand the challenges faced by the target group – the students in higher education at the level of experience.

Step 2: Going down the abstraction ladder

To validate the insights on the challenges faced by the youth, FGDs were planned with ten groups of students in higher education from five colleges. A discussion guide prepared with insights from the literature was used for discussion. A transcript was prepared for the discussion with every group. Every unique issue or fact was extracted from the transcripts and labels were prepared.

Step 3: Go up the abstraction ladder

In this step, each issue in the labels was expressed in the form of a symbol word on a label, which consists of three words starting with an action word in the continuous tense that grasps the essence of the issue. Symbol words were grouped that connects to common themes. For each group of symbol words, a title was written at a higher level of abstraction for all the grouped symbol words.

Step 4: Create model of hypothesis

Few cycles of relationship among the abstracted elements were developed by discovering and mapping the relationships among them. Then, a diagram was prepared by representing all the cycles together. The cycle names were established at the next level of abstraction.

Step 5: See the future through the model

Two system dynamics models developed in step 4 were seen at higher level of abstraction, which resulted in key insights for further research. Key challenges the students faced were identified from both the system dynamics models and an integrated model was established.

3.3.1 STEP 1: PERCEIVING THE PROBLEM

The insights on the challenges faced by the youth from the review of literature were grouped into the following five themes. This is about perceiving the symptoms of the problem, i.e., the challenges faced by the youth. The insights were classified under five themes as shown below:

- Purpose, Choices, and Aptitude:
    - Most of the youth choose their studies and career based on parental or peer influence rather than on their own aptitude. Hence, the students do not articulate a dream or goal for their career and life.
    - Youth are under great pressure to be successful in life and to prove themselves to their parents and society, but the opportunities are limited.

Wellness of Youth: While youth go through several physical, hormonal, psychological, behavioural, and social developmental changes, their health is neglected because of a lack of awareness, and social taboos. The many issues captured in the review of literature are relating to wellness at Physical, Mental and Social levels.

- Physical wellness:
    - Nutrition: The physical makeup of the brain is affected by nutrition. A student's nutrition leads to enhanced concentration. The choice and intake of food of youth is determined by socio-economic status and influenced by the media, family, peers.
    - Physical activities & exercises: Physical activities and exercises increase oxygenation, and therefore, attention and memory. Due to the increased emphasis placed on academics, laziness and distractions, youth engage in significantly less physical activity or exercise.
    - Sleep: For effective consolidation of what is learnt in the class, sleep is important. During all stages of sleep, the mind and brain are working to process new memories, consolidating them into long-term storage and integrating recently acquired information with past experience. The students go to sleep late in the night and compromise quality sleep required for memory consolidation.
- Mental wellness:
    - Attention and Memory: Effective learning is realized when the brain can pay attention while listening or reading and subsequently remember what it has been exposed to. Attention can be either focused or peripheral. Memory can be

sensory, short-term, working, and long-term. This has an influence on the executive functioning. Youth lack all these factors which impacts their attention and memory that are essential for learning.

- Good stress (eustress) improves attention and helps learning, while "bad" stress detracts from learning potential. Youth in India go through depression and anxiety related disorders, attention-deficit and hyperactivity disorders.

- Social wellness:
  - During adolescence, the peer group often replaces the family as their primary social focus. Friendships, infatuation, love, personal identity, and social success play an important role during the social development phase.
  - Emotions that transfer between individuals through their communications and interactions are called 'emotional contagion'. This causes others to experience similar emotional states leading to social interactions and collective behaviour happens in social networks.

- Distractors:
  - Exposure to media and social networking shapes the culture of the youth. The dominance of mass media impacts the lives of young people as a primary cultural resource.
  - Social networking sites have several negative impact on the youth as they are highly time consuming, leading to waste of significant productive time. This also shortens attention span. Their engagement in social media leads to starvation of sleep, which in turn can affect their attention, memory, and eventually their learning.

3.3.2 STEP 2: GOING DOWN THE ABSTRACTION LADDER USING FGD

According to (O.Nyumba et al., 2018), focus group discussion is frequently used as a qualitative approach to gain an in-depth understanding of social issues. The method aims to obtain data from a purposely selected group of individuals rather than from a statistically

representative sample of a broader population. In a focus group discussion, researchers adopt the role of a "facilitator" or a "moderator." In this setting, the researcher facilitates or moderates a group discussion between participants.

Focus group discussion consists of four major steps - Research design, Data collection, Analysis and Reporting of results, as shown in Table 3.1. This model was appropriately adopted for the focus group discussion with the students in higher education.

TABLE – 3.1

PROCESS FOR CONDUCTING FOCUS GROUP DISCUSSION

#	Steps	Tasks	Sub-tasks
1	Research Design	Define the objectives of the study	Define the purpose of the focus group discussion
			Develop list of key questions/discussion guide
		Identify and recruit participants	Ensure homogeneous composition
			Decide on the number of participants
			Identify and recruit a facilitator/moderator
			Decide on the number of focus groups
2	Data Collection	Pre-session preparation	Facilitate with script, group dynamics
			Record duration of each meeting
		Facilitation during the meeting	Introduce (Randomized self-introduction, Consent, Confidentiality, Ground rules)
			Discuss (Record and observe discussion, Probe, Pause, Reflect, Observe non-verbal cues)
			Track questions for completion and follow-up on themes of discussion
			Conclude (Acknowledge participants)
3	Analysis	Options include:	Listing/Ranking
			Coding (Key ideas, Themes)
			Content Analysis
			Discourse Analysis
			Conversation analysis
4	Results and reporting	Decide on the target audience	Academics
			Policymakers and practitioners
			Participants of the study

3.3.2.1 QUALITATIVE RESEARCH DESIGN

Following are the steps followed for design of qualitative research using the guidelines discussed in the previous section.

- Purpose of the focus group: Sensing the symptoms of the challenges of the youth determined from review of literature was generic in nature. The target group for the research are students in higher education. Hence, the purpose of the focus group discussion is to "Determine the challenges faced by the students in higher education'.
- Develop the key questions/discussion guide: (Monique M Hennick, 2014) emphasizes the importance of preparing the discussion guide or questions for the focus group discussion. A discussion guide is prepared with list of topics or actual questions used by a moderator to guide the group discussion. A discussion guide requires considerable forethought to develop an effective guide that fosters productive discussion and elicits useful information to meet the research objectives. The discussion guide thus becomes a checklist to ensure that all topics were covered by the close of the discussion. Using the insights from review of literature on the following five themes, the discussion guide was prepared with the following key themes:

  Theme 1: Purpose, Choices, Aptitude:

  1. Clarity on the purpose of pursuing their education.
  2. Awareness of their aptitude.
  3. Alignment of their choices with aptitude,
  4. People who influenced their choices.
  5. Articulation of their goals – both academic and career.
  6. Their focus and engagement towards their goals.

  Theme 2: Physical well-being including energy.

  1. Energy level and physical fitness in their day-to-day life.
  2. Fluctuation of their energy levels during weekdays and weekends.
  3. Tasks that make them energetic and tasks that make them tired.

4. Awareness of the role of nutrition, sleep, and physical exercises in learning.
5. Quality of their food in terms of nutrition.
6. Duration and quality of sleep.
7. Their engagement in physical activities/exercises/games.

Theme 3: Mental well-being

1. What makes them feel positive, happy, and delighted?
2. What makes them feel frustrated, upset, and distressed?
3. Mental pressure they face from parents, peers, and teachers to perform.
4. Effect of such pressure on their day-to-day life.
5. Their ability to concentrate on their studies – in class, reading.
6. Their ability to recall what they learned when needed.

Theme 4: Social well-being

1. People play major role in their social focus – family, peers.
2. Their best friend and the reason.
3. Quality of their relationships with parents, siblings, and friends.
4. Comfort to deal with the relationship of the opposite gender with ease.
5. Their personal values.

Theme 5: Distractors

1. Distractions towards engaging themselves to realize the goals.
2. Influence of mass media on them.
3. Courage to stay focused despite such distractions.
4. Effect of positive or negative emotional contagion on them.

(Monique M Hennick, 2014) states that group composition refers to the characteristics of participants in a focus group. Group composition can have a significant effect on the group dynamics during a discussion and therefore needs careful consideration.

Homogeneity among participants therefore fosters an open productive discussion, which contributes to better quality data. Group homogeneity is generally sought in the socio-cultural backgrounds of participants or their level of experience with the study topic. According to (O.Nyumba et al. 2018), 6-8 participants are sufficient for a focus group discussion. To overcome the potential drop of recruits, it is recommended that researchers consider 10-12 participants. With more than 12 members, the group becomes difficult to manage and may disintegrate into two or even three small groups.

The colleges were located in Tier 2 cities like Coimbatore, Madurai and Tier 3 towns like Pollachi and Hosur. Tier 2 cities attract students from Tier 1 cities as well as Tier 2. The colleges in Tier 3 towns attract students from Tier 3 and rural areas. Professional colleges like engineering and agriculture were chosen as the admission for these colleges is carried out centrally through counselling based on merit and quota based on socioeconomic background. This leads to the diversity of students in these colleges. In the past, professional colleges had limited gender diversity, whereas in the recent years, there has been an increasing proportion of girl students willing to go colleges far from their native places with the active support of their parents. For focus group discussion, group size of 10-12 students was chosen to obtain diverse views. As girl students may have some reservations to share their views freely with boys, separate group of girls was chosen. In the chosen five colleges, one group of boys and one group of girls were chosen for the discussion as shown in Table – 3.2.

TABLE 3.2

COVERAGE OF FOCUS GROUP DISCUSSION

#	College	FGD 1 (Boys)	FGD 2 (Girls)
1	Mahalingam College of Engineering and Technology, Pollachi, Tamil Nadu	12	11
2	PSG Institute of Innovation and Technology	12	12
3	Vanavarayar Institute of Agriculture	10	11
4	Thiagarajar College of Engineering, Madurai	12	11
5	Er Perumal Manimegalai College of Engineering	12	12

(Monique M Hennick, 2014) states that ethics are a set of moral principles that researchers abide by to protect study participants from harm by researchers or the research process. Codes of research ethics comprise informed consent, self-determination, minimization of harm, anonymity, and confidentiality. "Self-determination" refers to participants' right to determine whether they wish to participate in the study and their right to refuse participation without any negative consequences. They should also be informed that if they participate in the study they do not have to answer any questions if they prefer not to, and that they are free to leave the discussion at any time. Researchers also need to seek consent for recording the group discussion and in doing so describe why a recording is needed, and how it will be used and safeguarded. It is the researcher's responsibility to keep confidential the information discussed in the focus group and to maintain anonymity of group participants.

The students have agreed to participate in the focus group discussion knowing the purpose of the discussion after a briefing by the faculty. In addition, after the introduction, the students were briefed about the purpose of the focus group discussion and advised that anyone not comfortable with going through the discussion, can feel free to opt out of the discussion at any point of time. They were also briefed that they could refrain from responding to any question or discussion, they were not comfortable with. They were also informed that the discussion would be recorded to prepare a transcript for analysis at a later stage and their concurrence was obtained. They were assured that the data collected during the discussion would be analyzed at an aggregated level as a group and not at the individual level. The output of the discussion would be used only for research and not be shared with anyone else for other purposes. The students expressed that they had been wondering how to deal with these challenges and felt happy there was a forum to listen to them. They were also curious to know about the follow-up action to help them to overcome their challenges.

- Identification of facilitator/moderator: The role of the moderator is important to get the desired outcome. According to Monique M Hennick (2014), the moderator needs to manage a group of participants, which means greater skills and attention are needed for questioning and probing an entire group, fostering group cohesion, and managing the group dynamics, while remaining focused on the research objectives and facilitating the flow of an interactive discussion. Effective moderation requires skills such as

adapting to the level of moderation, effective listening, probing the discussion, seeking diverse views, or using activities to stimulate discussion. First few focus group discussions were moderated by a former HR head of a company with good experience in moderating focus group discussion with consumers, employees and student groups. He coached the scholars to moderate the subsequent discussions.

Once the research design was carried out, a schedule to cover focus group discussion in five colleges with ten groups was prepared. A coordinator in each college made sure they communicated the purpose of the focus group discussion and recruited students for the focus group discussion. Based on the discussion guide, the duration was estimated to be 60-90 minutes for each discussion. The schedule and duration was communicated to the colleges and the students.

- Facilitation during the focus group discussion:

The students were enthusiastic about participating in a discussion about their challenges. They never had such discussions until now. While they faced many challenges and felt helpless, they never thought of anyone trying to understand and address their challenges. (Monique M Hennick, 2014) suggests the following steps for the discussion:

- Setting the context and format of discussion:
    - Introduction of members
    - Describe the purpose of the study.
    - Explain the format and duration of the discussion.
    - Clarify questions from the participants.
    - Clarity ethical issues – Voluntary participation, obtain consent, assure confidentiality, seek permission to record.
- Engage the group in active participation.
    - Introduction of all participants
    - Create a comfortable and conducive environment
    - Develop rapport with participants

- Manage group dynamics
    - Seek contribution from all participants
    - Encourage quiet participants and manage dominant members
    - Foster respect for different views
- Moderate the discussion
    - Encourage discussion between participants
    - Seek a variety of views and experiences
    - Probe to seek depth and detailed responses
    - Reflect positive body language to encourage discussion
    - Listen to issues raised and follow leads for discussion
    - Keep the discussion focused on research topics
    - Determine whether responses provide sufficient information on each topic
    - Invite new issues and opinions
    - Vary moderation techniques to broaden or narrow the discussion
    - Monitor timing and pacing of the discussion

These guidelines for conducting the focus group discussion were useful. Each of the points was useful in engaging the participants effectively and enabling them to articulate on the questions. The discussion was recorded with the consent of the participants. By listening to the recorded discussion, a transcript was prepared. Keywords of the discussion with the participants were extracted from the transcript. All the high frequency keywords were captured for further data analysis as shown in Annexure 2.

3.3.2.2 MAKING LABELS IN 4W1H FOR KEY ISSUES FROM FGD:

Each of the key issues gathered from the transcript was expressed in different ways and they were not amenable for processing using ladder of abstraction. Hence there is a need to organise the key issues in a specific format. (Kiran Deshmukh, 2017) suggests the

application of the rule 4W1H (who, what, where, when, and how) to probe for particulars, work through feelings, and scrutinize inference, judgement, and conclusion for qualitative analysis. We ask questions such as who did it, what was done, where and when it was done (or happened) to get to the underlying facts to push the statement down the ladder of abstraction. For example, we can convert "*He is not a good operator*." – an opinion – to "*He turned the lever of the machine to the left when the operating instructions stated that it should be turned to the right*." – statement that can be verified – by applying 4W1H.

Using these guidelines, each of the key issues collected from FGD was written using 4W1H guidelines in a label. For example, about half of the students who participated in the discussion expressed that the choice of their engineering branch was influenced by their parents. Hence, a label is written as "*More than 50% of the students made their choice of engineering branch based on the parental influence'*. Many students are not actively engaged in learning throughout the semester; they prepare for the examinations a few days prior to the exam. They become anxious about the vastness of the subject to be understood in a short time. This created stress for the students. This issue was written in the label "*Many students find last-minute preparation for the examinations creates negative energy*.

All the issues gathered from the FGDs were used to prepare the labels in 4W1H format for each of the five themes – Purpose, Choices and Aptitude as shown in Figures – 3.2, Physical wellbeing as shown in Figure – 3.3, Mental wellbeing as shown in Figure – 3.4, Social wellbeing as shown in Figure – 3.5, Distractors as shown in Figure – 3.6.

FIGURE – 3.2

4W1H LABELS FOR PURPOSE, CHOICES, AND APTITUDE

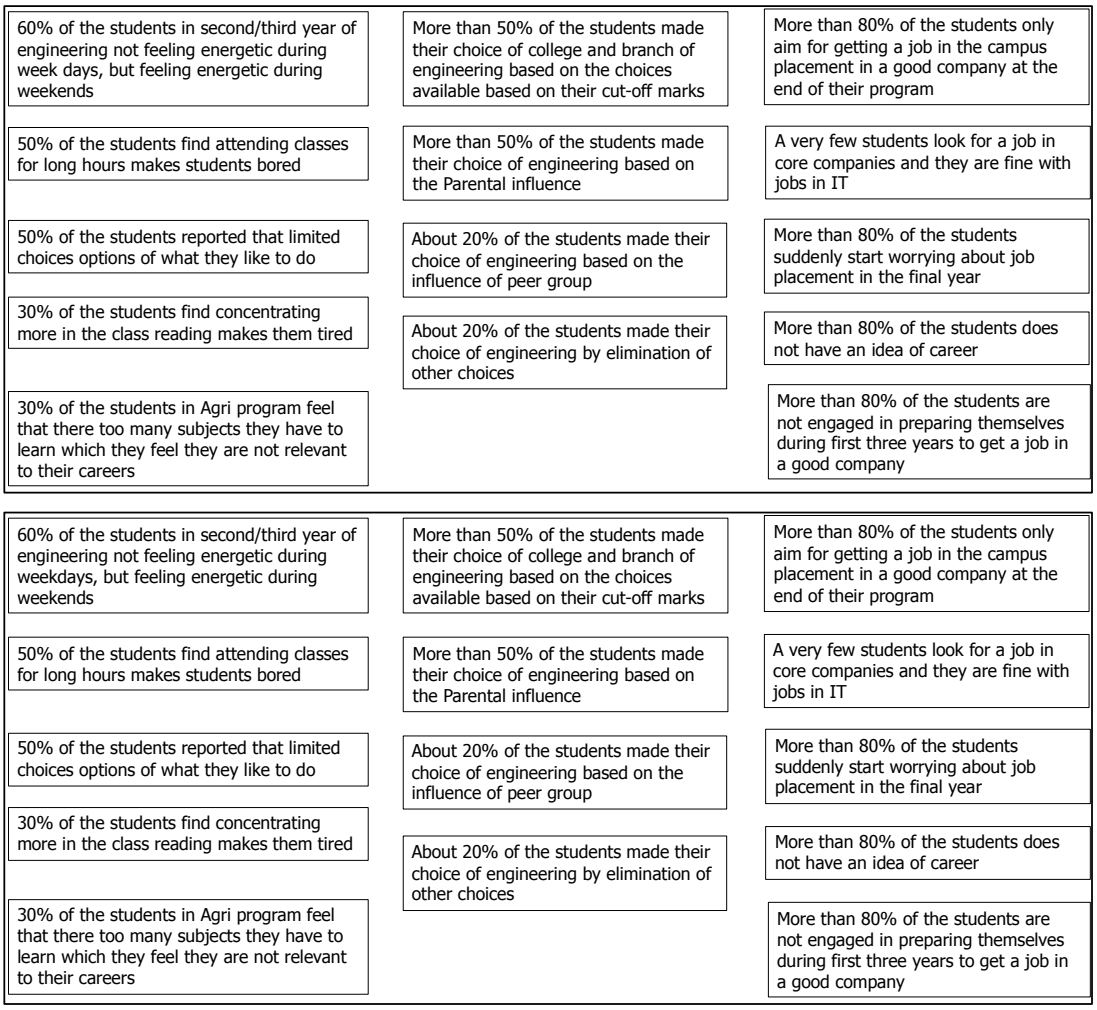


FIGURE – 3.3

4W1H LABELS FOR PHYSICAL WELL-BEING

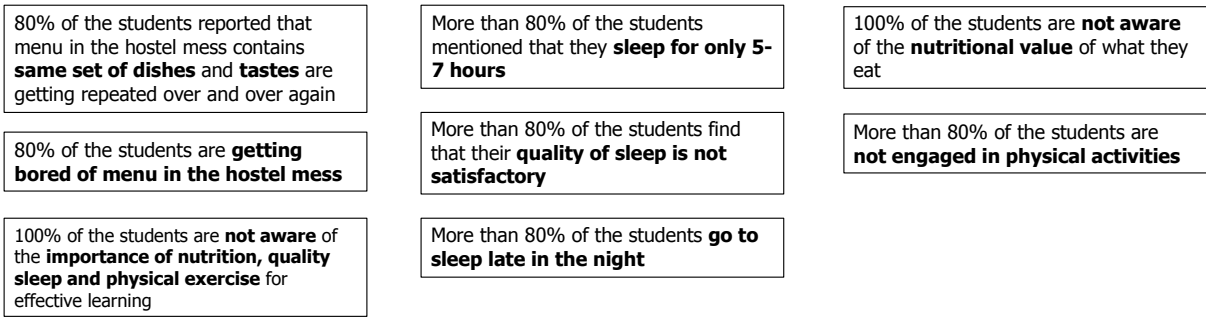


FIGURE – 3.4

4W1H LABELS FOR MENTAL WELL-BEING

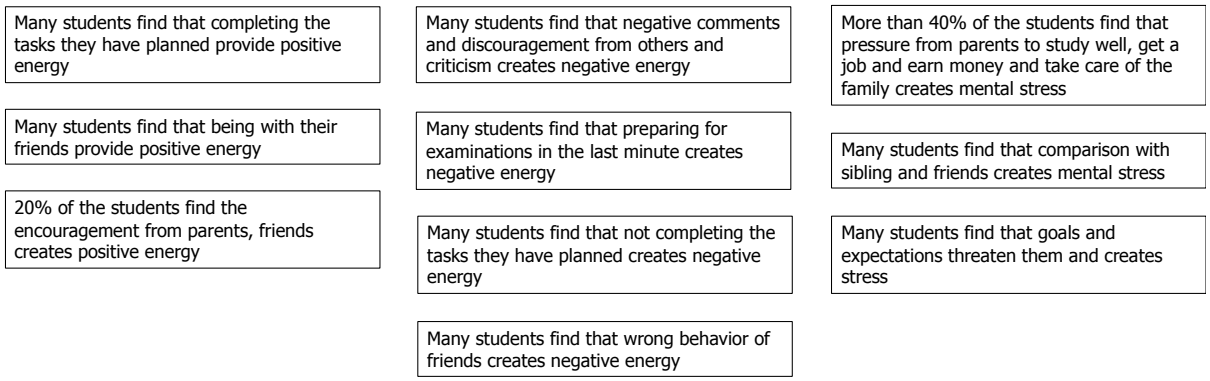


FIGURE – 3.5

4W1H LABELS FOR SOCIAL WELL-BEING

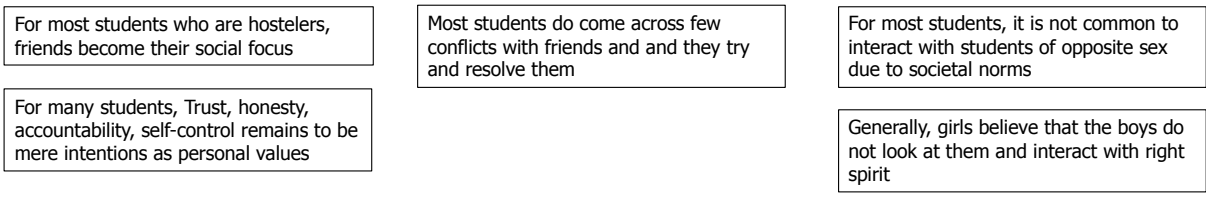
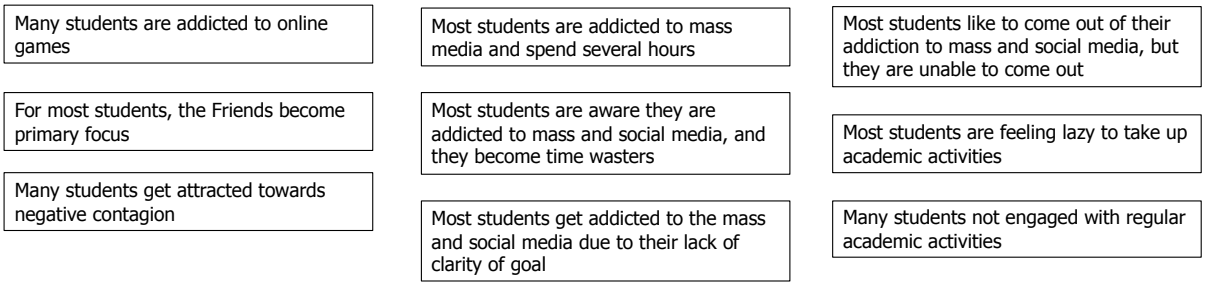


FIGURE – 3.6

4W1H LABELS FOR DISTRACTORS



3.3.3 STEP 3: GOING UP THE ABSTRACTION LADDER USING SYMBOL WORDS AND GROUPING

Sentences are too long in nature. Creation of model needs compact and meaningful image of the label. Towards this, (Kiran Deshkukh, 2015) suggested the use of the concept of 'symbol word'. A symbol word consists of three words starting with an action word in the continuous tense. The symbol word should not summarize or abstract the meaning but cover the essence of the statement. If we go outside the sentence, we tend to draw inference or judgement. Therefore, we must remain within the sentence while grasping the essence. The process steps for making a symbol word include:

- Extract the keywords from the sentence
- Focus on one or two keywords
- Apply the context to understand the meaning of the keywords
- Form a group of three words with a verb in its infinitive form that conveys the essential meaning of the selected keywords

Using these steps, each of the key issues in the form of a sentence using 4W1H was expressed in the form of a symbol word on a label. The following are a few examples:

- The symbol word for the fact label '*60% of the students in second/third year of engineering not feeling energetic during weekdays but feeling energetic during weekends*' is written as '*Fluctuating energy levels.*
- The symbol word for the fact label '*More than 80% of the students spend time chatting with friends, social media, computer games and peers'* is written as '*Diverting to wasteful activities*.'

The symbol words of all the key issues for all five themes were prepared for Purpose, Choices, and Aptitude as shown in Figure – 3.7, for Physical wellbeing as shown in Figure – 3.8, Mental well-being as shown in Figure – 3.9, Social wellbeing as shown in Figure – 3.10, Distractors as shown in Figure 3.11.

FIGURE – 3.7

SYMBOL WORDS GROUPED FOR PURPOSE, CHOICES, AND APTITUDE

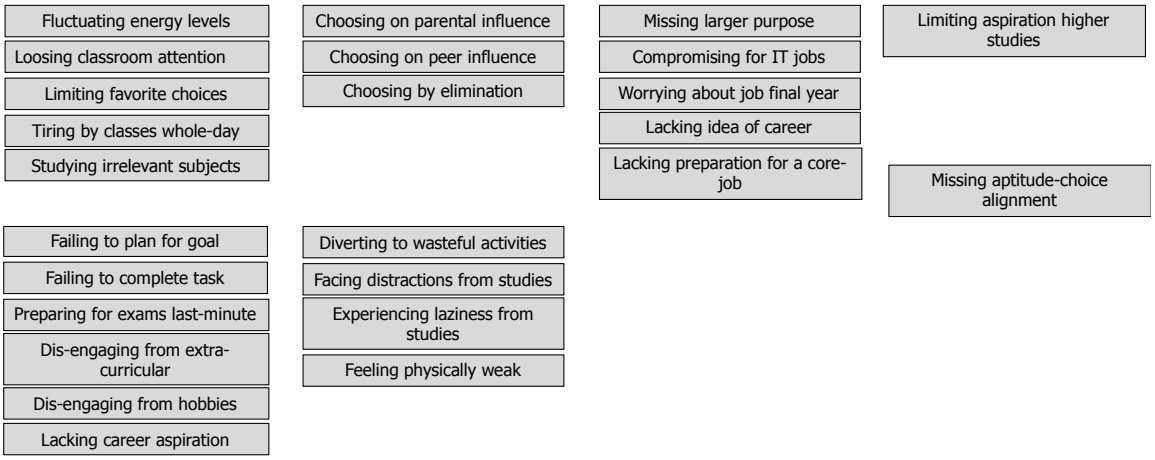


FIGURE – 3.8

SYMBOL WORDS GROUPED FOR PHYSICAL WELL-BEING

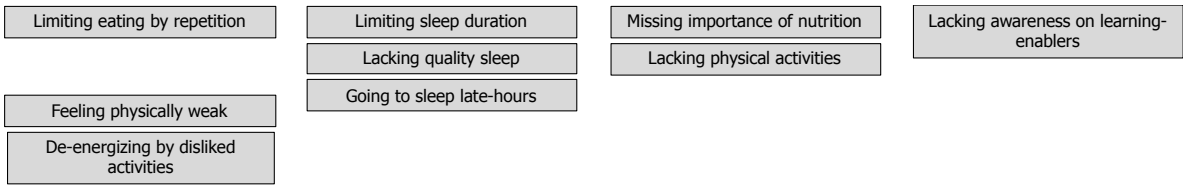


FIGURE – 3.9

SYMBOL WORDS GROUPED FOR MENTAL WELL-BEING

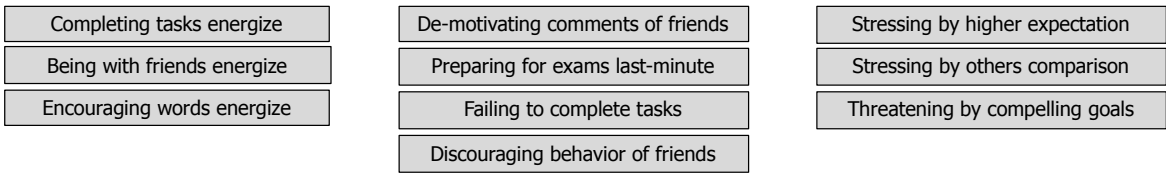


FIGURE – 3.10

SYMBOL WORDS GROUPED FOR SOCIAL WELL-BEING

FIGURE – 3.11

SYMBOL WORDS GROUPED FOR DISTRACTORS

(Victoria Clarke et al., 2017) states that theme development involves examining codes (and associated data), and combining, clustering or collapsing codes together into bigger or more meaningful patterns. More commonly, thinking and effort is required to identify features of similarity and relationship across a range of different codes that means they can be clustered together into a possible theme. In this process, the researcher needs to identify a central organizing concept – a 'clear core idea or concept that underpins a theme' that is shared across the range of codes. This central organizing concept helps the researcher determine what a theme is all about, and whether or not any particular code fits within it. According to Shiba (2006), two key processes are involved – grouping and title making to develop themes. Grouping is difficult as it involves intuition and not logic and it is bottom-up leading the new hypothesis and discovery. The process of grouping is carried out in three steps:

Step 1: Randomize the labels on the chart.

Step 2: Read all the labels individually and create image for each label.

Step 3: Arrange label in groups of 1, 2, 3 based on the images. Capture the resemblance of image and ignore differences. Some labels which do not fit into any group may be left out.

Title is the summary of language data and it must be one level up the abstraction ladder, like 'cow' to 'livestock'. Title making is the process of creating summary. In the case of numeric data, 'sum' or 'mean' indicates the nature of the group. Similarly, in the case of language data, finding the title one level up the ladder of abstraction is equivalent to the summary. The following three steps are recommended for finding the summary to form the abstraction ladder.

- Extract the same word(s) among the labels
- Extract the same issue(s) among the labels and abstract one level up
- Construct sentence with the result of steps 1 & 2

Following this process, the labels of symbol words were grouped together based on the common images (overlapping images) that come from statements of the facts. Titles were identified at the higher levels of abstraction for each group of symbol words; for example, the following symbol words were grouped as they had a common image of the issues. A title was written at the next higher level of abstraction.

Title: '*Experiencing low-energy and boredom'*

1. Fluctuating energy levels
2. Losing classroom attention
3. Limiting favourite choices
4. Tiring classes the whole day
5. Studying irrelevant subjects

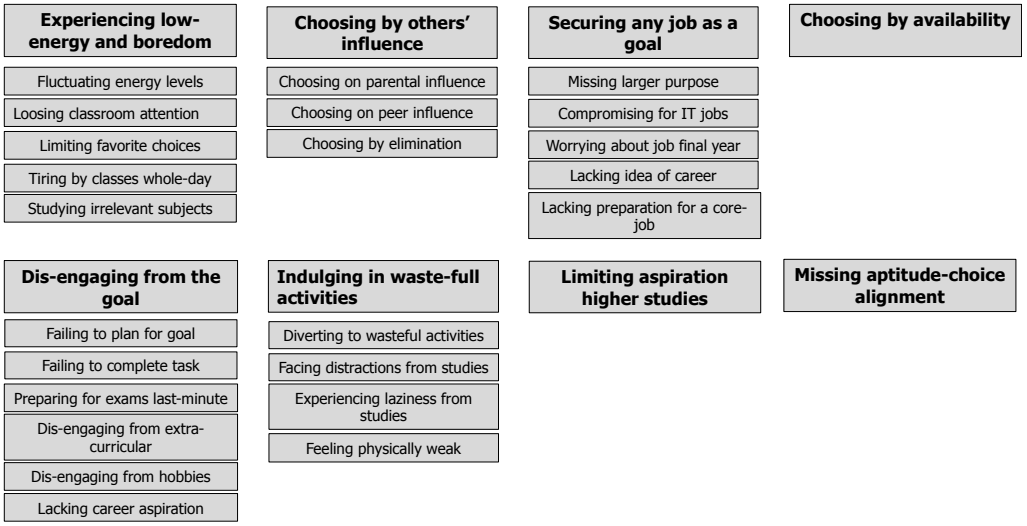
Title: '*Lacking quality sleep'*

6. Limiting sleep duration
7. Lacking quality sleep
8. Going to sleep late

Titles for each group of symbol words for the theme 'Purpose, Choices, and Aptitude' are shown in figure – 3.12.

FIGURE – 3.12

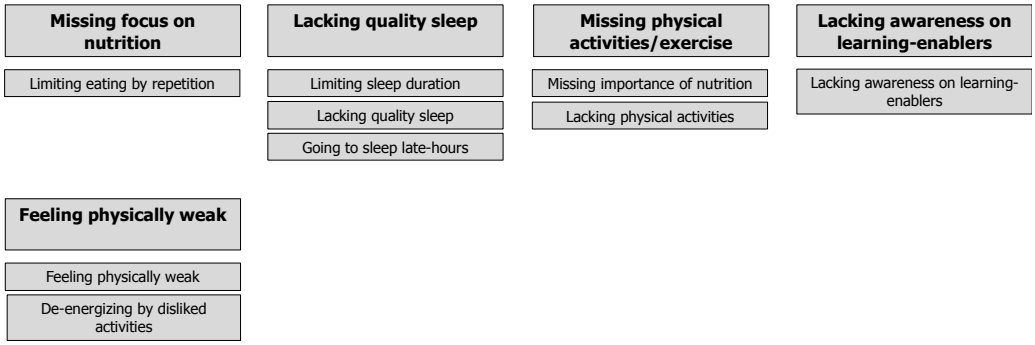
TITLES FOR GROUP OF SYMBOL WORDS - PURPOSE, CHOICES, APTITUDE



Titles for each group of symbol words for the theme 'Physical wellbeing' are shown in Figure – 3.13.

FIGURE – 3.13

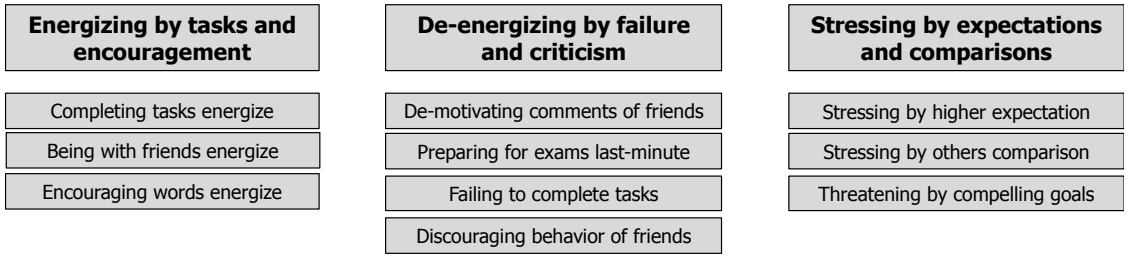
TITLES FOR GROUP OF SYMBOL WORDS FOR PHYSICAL WELLBEING



Titles for each group of symbol words for the theme 'Mental well-being' are shown in figure- 3.14.

FIGURE – 3.14

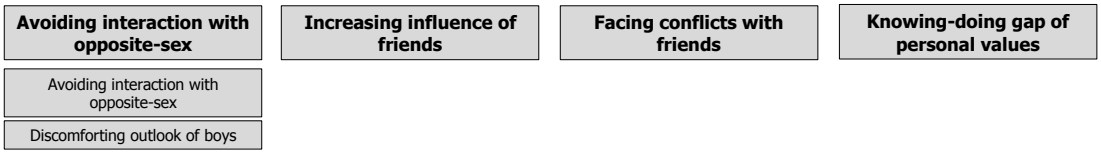
TITLES FOR GROUP OF SYMBOL WORDS FOR MENTAL WELL-BEING



Titles for each group of symbol words for the theme 'Social wellbeing' are shown in figure – 3.15.

FIGURE – 3.15

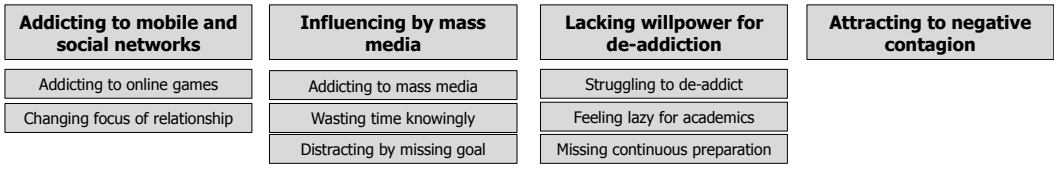
TITLES FOR GROUP OF SYMBOL WORDS FOR SOCIAL WELL-BEING



Titles for each group of symbol words for the theme 'Distractors' are shown in figure – 3.16.

FIGURE – 3.16

TITLES FOR GROUP OF SYMBOL WORDS FOR DISTRACTORS



3.3.4 STEP 4: CREATING A MODEL USING SYSTEM DYNAMIC MODEL

According to (Kiran Deshmukh, 2017), a system is any group of interacting, interrelated, or interdependent parts that form a complex and unified whole that has a particular purpose. For example, a heap of light bulbs, few pieces of copper wire, a battery, and a switch does not form a system. The bulb, when connected to the battery with the

wires through the switch is part of a system. In the study of human anatomy and physiology, organs that work together are grouped into an organ system. For example, the respiratory system primarily provides oxygen to body tissues for cellular respiration, removes the waste product carbon dioxide, and helps to maintain acid-base balance. Portions of the respiratory system are also used for non-vital functions, such as sensing odours, speech production, and for straining, such as during childbirth or coughing. Three key features of a system are as follows:

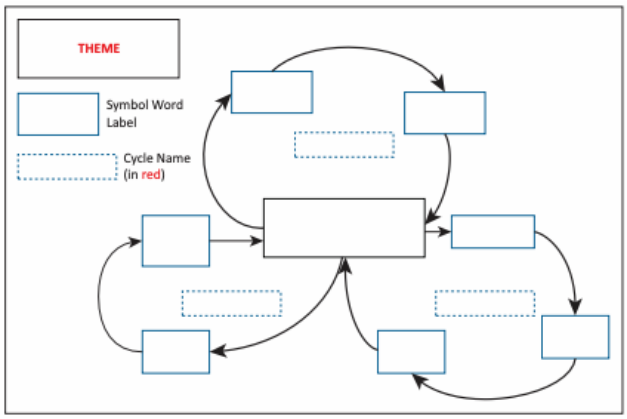
- A system has several groups of elements.
- Elements of a system have relationships with each other.
- A hierarchy of subsystems makes up a system.

A system is more than the sum of its parts and its structure is the source of system behaviour. System dynamics models explore possible future or scope of the system. Elements of the system are interconnected through the causal relationship. The elements of a system form a hierarchical structure based on their context and extent of influence. (Kiran Deshkukh, 2015) suggests the following steps for creating system dynamics model as shown in Figure – 3.17:

- Spread out the grouped, abstracted symbol words on a larger sheet.
- Put the label of the themes in the centre of the sheet.
- Group labels by similarity of context.
- Link the labels of the same group by logic with feedback loop cycle.
- Name each cycle to show the context.

FIGURE – 3.17

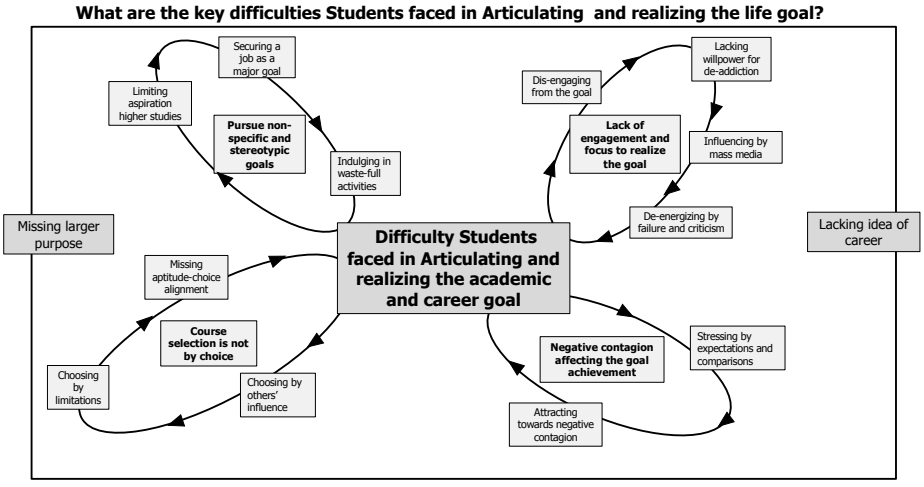
SYSTEM DYNAMICS (SD) MODEL



Following this process, few cycles of relationships among the abstracted elements were developed by discovering and mapping the relationships among them. Then, a diagram was prepared by representing all the cycles together. The names of the cycles were established at the next level of abstraction. This resulted in two system dynamics models as there were several issues, which could not be fitted in one model. The name of the first cycle is the '*Difficulties the students face in articulating and realizing their goals*' as shown in Figure – 3.18. The name of the second cycle is the '*Difficulties students face in engagement and wellness'* as shown in Figure -3.19.

FIGURE 3.18

DIFFICULTIES STUDENTS FACE IN ARTICULATING AND PURSUING ACADEMIC AND CAREER GOALS

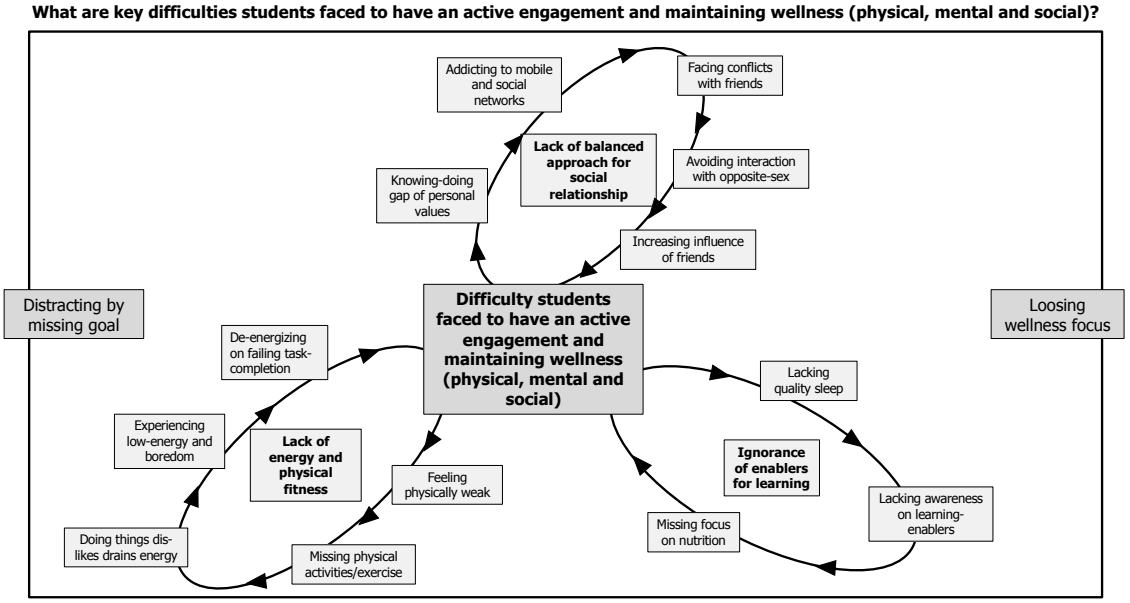


The first system dynamics model is '*Difficulties students face in articulating and pursuing the academic and career goals'* was abstracted from the following labels:

1. Pursue non-specific and stereotypic goals.
2. Lack of engagement and focus to realize the goal.
3. Course selection is not by choice.
4. Negative contagion affecting the goal achievement.

FIGURE 3.19

DIFFICULTIES STUDENTS FACE IN ENGAGEMENT AND WELLNESS



The second system dynamics model '*Difficulties students faced in actively engaging and maintaining wellness (physical, mental, and social*) was abstracted from the following labels:

1. Lack of balanced approach for social relationship
2. Ignorance of enablers for learning
3. Lack of energy and physical fitness

Labels relating to push were identified, which is the trigger point for the dynamics model. Labels relating to pull were identified, which is an outcome of the model. For the first system dynamics model, the push is 'Missing larger purpose' and pull is 'Lacking idea of career'. For the second model, the push is 'Distracting by missing goal' and pull is 'Losing wellness focus'.

The system dynamics models are output of the FSDP using large quantity of language data generated from FGD with the ten groups of students. Generally, a qualitative approach involves discretion of those who process the language data. FSDP provides clear guidelines for such discretion, which protects the spirit of the expressions that come alive through the process.

3.3.5 STEP 5: SEEING THE FUTURE THROUGH THE MODEL

(Kiran Deshmukh, 2015) states that the purpose of this step is to reach as close as possible to a concrete and meaningful action for future. The steps followed in foreseeing the future include the following:

- Categorize the cycles by orthogonal dimensions: The different cycles of the model should be categorized such that non-overlapping, uncorrelated, and independent issues are separated.
- Extract hidden context or meaning among different cycles
- Add missing or new symbol word(s) or cycle(s) to the model if necessary
- Decide cycles or symbol words to initiate next action

Using the above steps, two system dynamics models developed in step 4 were seen at higher level of abstraction, which resulted in key insights for further research. Key challenges that the students face was identified from both the system dynamics models and are shown in Figure – 3.20.

FIGURE – 3.20

CHALLENGES FACED BY YOUTH EMERGING FROM FSDP

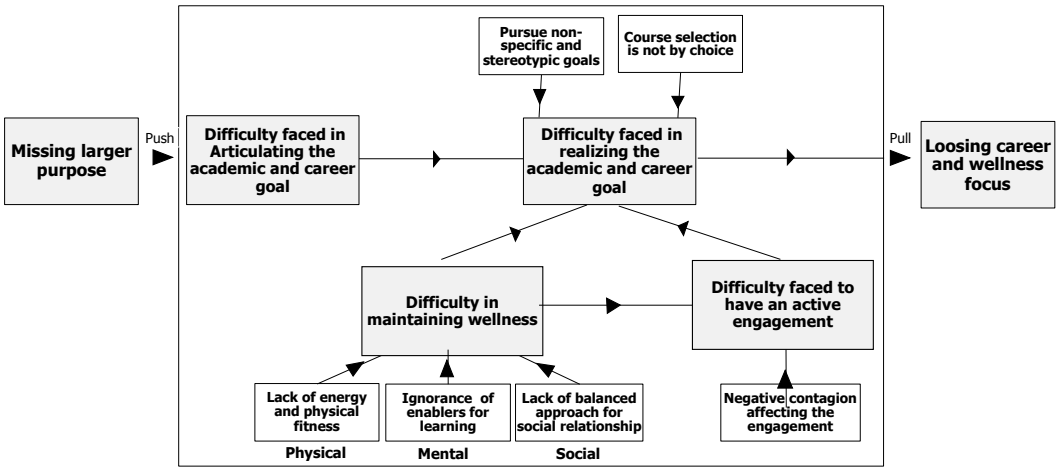


Figure 3.20 shows the hierarchy of abstraction of the challenges. The following two key issues were identified at the highest level as challenges faced by the students in higher education. They are as follows:

1. *Difficulty faced in articulating academic and career goals.*
2. *Difficulty faced in realizing academic and career goals.*

'The difficulty faced in realizing academic and career goals' is due to the following lower-level issues:

1. *Difficulty in maintaining wellness.*
2. *Difficulty faced in having an active engagement*
3. *Pursuing non-specific and stereotypic goals*
4. *Course selection not by choice*

'Difficulty in maintaining wellness' is due to the following issues:

5. *Lack of energy and physical fitness – (physical well-being)*
6. *Ignorance of enablers for learning – (mental well-being)*
7. *Lack of balanced approach to social relationship – (social well-being)*

'Difficulty faced in having an active engagement' is due to 'Negative contagion affecting the engagement'.

The students facing difficulty in maintaining their wellness at physical, mental and social levels is one of the key challenges. This impacts their engagement in realizing their academic and career goals. This is caused by the students not exercising their choices and pursuing stereotypic goals. At a macro level, all these challenges are due to the students missing the larger purpose, which results in losing wellness and career focus.

3.4 MERITS OF FSDP FOR QUALITATIVE STUDY

The unique issues and labels at different stages of FSDP is shown in the following Table -3.3.

TABLE 3.3

NUMBER OF UNIQUE ISSUES/LABELS AT DIFFERENT STEPS OF FSDP

#	Theme	Unique issues/Labels			
		Step 2	Step 3	Step 4	Step 5
1	Purpose/Aptitude/Choices	28	8	7	4
2	Physical well-being	8	5		
3	Mental well-being	10	3		
4	Social well-being	5	4		
5	Distractors	9	4		
Total		60	24	7	4

Source: Primary data

Table 3.3 shows that large amount of language data generated from ten FGDs was condensed into fewer, well-articulated challenges around five themes namely Purpose/Aptitude/Choices, Physical wellness, Mental wellness, Social wellness and distractors During Step 2 of FSDP, 60 unique issues/labels were captured, which were abstracted to 24 unique issues/labels during Step 3. This was further abstracted to 7 unique issues during Step 4. The final model had only 4 unique issues.

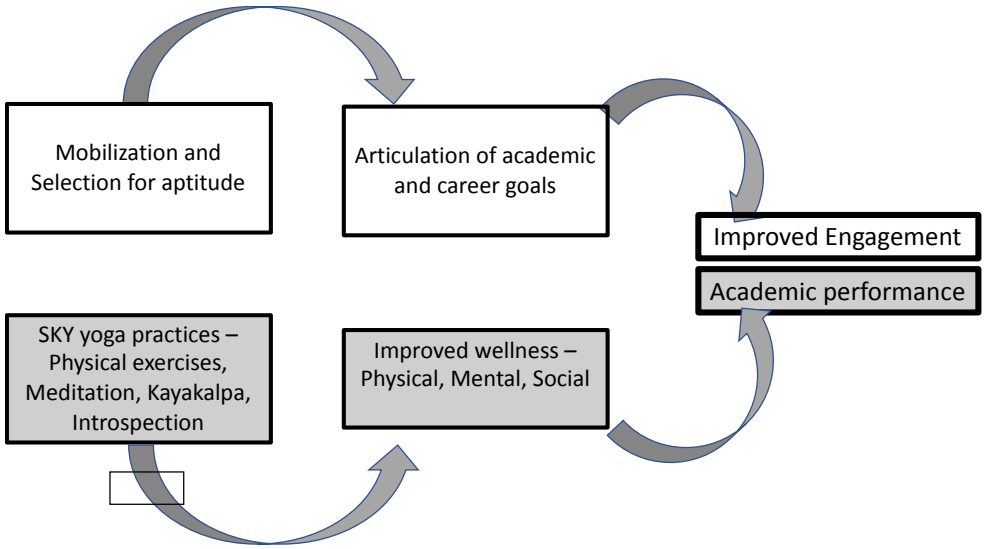
3.5 SCOPE OF RESEARCH FROM THE QUALITATIVE STUDY

FSDP was useful in processing the language data from FGDs. It helped in converting language data into meaningful themes of the challenges with system dynamic models. From the system dynamic model, the scope of the research can be determined as shown in Figure – 3.21. Improved engagement and academic performance can be influenced by

- Articulation of academic and career goals by the students
- Improved wellness at physical, mental and social levels

FIGURE 3.21

MODEL FOR VALIDATING SKY PRACTICES IMPACTING ACADEMIC PERFORMANCE



Not included in the scope of research

Included in the scope of the research.

3.6 CONCLUSION

The qualitative study was enabled to capture the challenges of the students in higher education through Focus Group Discussion, capture the insights from the students in the form of language data, process the language data using Five Step Discovery Process. About 60 issues captured from the FSDP were processed through five steps to come up with 4 key issues - Difficulty in maintaining wellness, Difficulty faced in having an active engagement, Pursuing non-specific and stereotypic goals, and Course selection not by choice. The scope of the research was limited to 'Difficulty in maintaining wellness' which consists of the following issues - Lack of energy and physical fitness – (physical well-being), Ignorance of enablers for learning – (mental well-being), Lack of balanced approach to social relationship – (social well-being). This provided clear direction for the research. This was useful to establish the theme of the research "Effect of Simplified Kundalini Yoga Practices (SKY) on wellness (Physical, Mental, Social), and academic performance of students pursuing higher education".