Chapter II
Review of Literature

This chapter provided a synthesis of recent and past research on the themes of employability skills, secondary education, skill gap etc. It does not aim to provide a comprehensive literature review, as the relevant literature in this area is vast and wide ranging. For the present study, the researcher collected information related to his work from various sources. Many studies and research abstracts were collected regarding Employability skills, Secondary Education and skill gap etc.

Background

There is a wide range of terms used to describe employability skills as ‘non-technical skills’, ‘generic skills’, ‘essential skills’, ‘soft skills’, transferable skills’, ‘enterprise skills’, key competencies etc.

Many of the frameworks used in the world to describe these non-technical skills include not only skills relevant to employment, but also broader capabilities relating to participation in society.

The notion of Employability Skills has been part of education for many years.

The concept of employment related skills gained traction in the world in the early 1990 USA (SCANS Report), Australia (Mayars committee Report), U.K.(NCVQ Core Skills), Canada (Employability Skills) etc. There are still concerns about how well these skills are being developed and demonstrated in the workplace.

A review of literature highlights following reasons for the lack of correct approaches to developing Basic Employability Skills including.

- Different definitions, interpretations and approaches used across industry sectors which create confusion about expectations.
- Failure to recognise the context dependent nature of Employability Skills and impact of the context upon these skills
- Incorrect assumptions that competence is automatically transferable.
- Insufficient capacities / confidence of teachers and trainers to address skills
- The difficulty of measuring assessing and reporting on Employability Skills.
Employability Skills

Employability Skills help individuals identify, articulate and develop the skills they need to gain employment, remain employed and be successful in employment at any stage in their working life. The Basic Employability Skills in this research have been identified through the U.S. development of Labour’s secretary’s commission on Achieving Necessary Skills (SCANS) in partnership with educators, business, industry representatives.

Importance of Employability Skills

- First, raising employability skills has emerged as an area for attention to improve the transition from full-time education into employment, including school leavers as well as those leaving college and university.
- Second, employability skills have been identified as a key element to ensuring that the employment and skills system is demand-led.
- Third, as part of the continuing integration of employment and skills policy there has been recognition that employers are looking for a broader set of generic employability skills and therefore to move unemployed people into sustainable work an approach that looks beyond vocational and technical skills alone is required.
- Fourth, employability skills have arisen as a theme in debates about promoting career advancement once in employment and tackling the barriers to social mobility.

The Need of Industry

Employers continue to focus on adaptation, cost reduction, increased productivity and new markets and new products and services. In this environment, there is an increasing requirement for employees to be stable to support increased competitiveness, innovation, flexibility and customer focus. They are increasingly seeking a more highly skilled workforce where the generic and transferable skills are broadly distributed across the organisation.

There have been broad agreement that all young people need a set of personal attributes and skills that will prepare them for both employment and further learning. Also, ongoing employability of individuals is dependent on them having a set of relevant skills as well as a capacity to learn how to learn new things. However, what has been clear is whether these attributes and skills should be in the context of challenges facing industry.

Research in this area is the complex - Factors contributing to this complexity include the lack of clarity in language and definitions, the capacity of employers to predict their future of the changing the nature of the workplace.
The rational of the problem

Today’s assembly line jobs require the ability to read complex manuals, analyses data, organize information and make judgments.

For examples, in 1965 a car mechanic needed to understand 5000 pages of service manuals to fix any automobile on the road. Today, with the advent of high tech electronics, the same mechanic must be able to decipher 465,000 pages of technical text. Educators must be reminded that the majority of population will never earn a college level degrees. This “neglected majority” should be the target of school to work initiatives. This group of students who will not continue post secondary education opportunities and will directly enter in the workforce (Hull and Parneel)

Gray and Hery supported the claim that today’s secondary educational systems does not focus enough upon “Neglected majority”.

The Employer Consensus about employability skills

For service business interpersonal communication skills is vital and for production business technological ability is demanded hence diverse workplace requires different employability skills hence it is very difficult to define employability skills. Surprisingly applicant’s academic capability may get less value that of non-academic skills like enthusiasm, discipline. Cotton reported that many of employers would prefer that secondary and higher secondary schools takes a step beyond basic academics and incorporate the teaching of higher level affective skills their curricula. Schug and Western stated that schools are always focusing only on academic goals. Hull and Parneel (1991) believed that it is essential that our school maintain a balance in regard to academic and non-academic goals.

Thus, it is extremely difficult to establish a consensus as to which specific employability skills are universally considered the most essential by today's employers. However, in reviewing surveys conducted by others as well as business and government-based studies, a general list is constructed. For example, Poole Identified 76 "critical employability skills" listed within nine categories and those skills focused solely upon one attribute - human relations. However, other researchers tend to narrow their lists to a more manageable number and generally group employability skills into three or four separate categories.

Schwartz categorizes list of "job readiness skills" under three headings: 1) Academic Skills; which focus upon an employee's ability to learn quickly and willingly; to have a knowledge of standard English for speaking, writing and understanding; and to have the
ability to do basic calculations, use numerical formulas and charts, and estimate quantities. 2) Vocational Skills; which focus upon the ability to solve problems; to communicate clear instructions and explanations and to understand what supervisors want from them; and to have the ability to be able to do manual tasks, to construct and assemble materials, and use job-related equipment. 3) Work-Related Habits and Attitudes; to have a general understanding of the workplace and the world of business; to be dependable and punctual; to be willing to ask questions and accept correction; to be trustworthy and honest; to have a respectful and positive attitude; to be patient and cooperative in working on projects until completion; and to be appropriate in regard to appearance, hygiene and dress. Hill & Petty focused solely upon the "occupational work ethic" in their study and determined that the employers they surveyed considered an employee's interpersonal skills, personal initiative and dependability paramount in regard to workplace readiness. Carson, Huelskamp & Woodall (1993) narrowed their list the significantly in reviewing studies. In finding that employers are looking primarily for four basic attributes: punctuality, respect for others, the ability to follow directions, and honesty. Surprisingly, they discovered that these studies further revealed that basic academic skills were considered among the least important of employability skills.

Bottom, Person and Johnson (1992) reinforced the argument that academics are of importance to employers. In their study, these researchers contend that employers tend to seek entry-level employees "who can read a technical manual, write a report, communicate effectively with supervisors and coworkers and make wise decisions". Hull & Parnell (1991) found in their study that the employers they surveyed tend to seek the best of both the academic and non-academic worlds in regard to employability skills. Their study revealed that employers seek candidates who have a sound academic base in regard to speaking, writing and calculation but also prefer that those candidates possess the ability to learn new technologies, can use computers as informational systems, are adept at interpersonal skills, and have the ability to do independent problem solving.

Thus, as the review of the literature indicates, there is no true consensus among our very diverse employer base as to specifically which employability attributes are considered essential in an entry-level candidate.

The Secretary's Commission on Achieving Necessary Skills (SCANS) was "asked to define the know-how needed in the workplace" (SCANS, 1992; p. ix) and to "determine the
skills that our young people need to succeed in the world of work" (p. xiii). Following a 1991 SCANS initial report entitled What Work Requires of Schools, the 1992 report established a list of foundation skills and workplace competencies using input from a broad-based consortium of employers. These skills and competencies, referred to as "workplace know-how", define the five competencies in the "workplace competencies" category as 1) resources, 2) interpersonal skills, 3) information; 4) systems, and 5) technology and the three skills defined in the "foundation skills" category as 1) basic skills, 2) thinking skills, and 3) personal qualities (p. xiv). For the purpose of specificity related to the survey that this paper is to construct, each of the five competencies and three skills are defined as follows:

**Workplace Competencies:**

1) Resources: Knowing how to allocate time, money, materials and space.
2) Interpersonal Skills: Knowing how to work on teams, teach others, serve customers and work well with others of culturally diverse backgrounds.
3) Information: Knowing how to acquire data, maintain files, communicate, and use computers to process information.
4) Systems: Knowing social, organizational and technological systems and monitor and correct their own performance.
5) Technology: Knowing how to select equipment and tools, apply technology to specific tasks, and troubleshoot equipment.

**Basic Employability Skills**

Basic Employability Skills is a group of important skills instilled in each individual in order to produce productive workforce. This is parallel with individuals who have strong characteristics such as a high sense of smell, innovative, productive, skillful, competitive, a strong sense of determination and creative in facing the challenges of nation as Employability skill is crucial in all professions and in education.\(^{10}\)

The current working environment differs from previous one. This is because with global competitions, cultural diversity, latent technologies and process of new management required workers to have critical thinking, able to solve problems besides excel in communication skills. Curriculum that could fulfill the criteria as required in the job market could assist and make it easier for the students to face challenges and to secure a place for themselves in employment. A few researches had been carried out to determine the basic employability skill among students.
(a) One of the research was done by De Leons Borchers\textsuperscript{11} who studied on the skills required by Texas students to serve production industries. Both used employers on research respondents. This research emphasized on a few skills such as reading, writing, listening, calculating, communicating, critical thinking, interaction in a groups, self development, leaderships etc.

This study found that three most important skills required by employers are interaction in groups, employability and self development.

(b) The study done by Smith\textsuperscript{12} regarding the involvement of school children in the occupation found that the employers for opting new employee, laid importance on two main factors displayed attitude and employability skills required for development of career path

(c) Employment skills is in fact a skill required in employment. The preparation to acquire this skills begin when a person is still in the learning process. Thus a board by the name of (SCANS) reports prepared reports on ways of assisting educational institutes and school in producing younger generations who are willing to work. SCANS (1991)\textsuperscript{13} stated that the most graduates were yet to have good knowledge of basic skills of occupation. In the beginning SCANS’s report indentified seven skills related to a certain task. However after renewal of SCANS’s (2000) report\textsuperscript{13} two groups of skills were formed. They were general and efficiencies.

SCANS’s approach is suitable for secondary school in their preparation of producing students to have employability skills to work in industry SCANS (2001) emphasized that skills and efficiencies are also a part of the measures taken to ensure students to master the criteria required by employers in order to produce high profile workers in various fields and careers.

This is because SCANS mainly highlighted on students future and to ensure students in getting the right skills during school days\textsuperscript{14}.

**SCANS Foundational Skills**

**Basic Skills:** Reads, writes, performs arithmetic and mathematical operations; listens and speaks

A. Reading :- locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules

B. Writing :- communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts
C. Arithmetic / Mathematics: performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques

D. Listening: receives, attends to, interprets, and responds to verbal messages and other cues

E. Speaking: organizes ideas and communicates orally

**Thinking Skills:** Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

A. Creative Thinking: generates new ideas

B. Decision Making: specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative

C. Problem Solving: recognizes problems and devises and implements plan of action

D. Seeing Things in the Mind's Eye: organizes, and processes symbols, pictures, graphs, objects, and other information

E. Knowing How to Learn: uses efficient learning techniques to acquire and apply new knowledge and skills

F. Reasoning: discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

**Personal Qualities:** Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

A. Responsibility: exerts a high level of effort & perseveres towards goal attainment

B. Self-Esteem: believes in own self-worth and maintains a positive view of self

C. Sociability: demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings

D. Self-Management: assesses self accurately, sets personal goals, monitors progress, and exhibits self-control

E. Integrity / Honesty: chooses ethical courses of action

**The Foundation**

**Basic Skills**

**Reading:** Locates, understands, and interprets written information in prose and documents— including manuals, graphs, and schedules—to perform tasks; learns from text by determining the main idea or essential message; identifies relevant details, facts, and specifications; infers or locates the meaning of unknown or technical vocabulary; and judges the accuracy, appropriateness, style, and plausibility of reports, proposals, or theories of other writers.
Writing :- Communicates thoughts, ideas, information, and messages in writing; records information completely and accurately; composes and creates documents such as letters, directions, manuals, reports, proposals, graphs, flow charts; uses language, style, organization, and format appropriate to the subject matter, purpose, and audience. Includes supporting documentation and attends to level of detail; checks, edits, and revises for correct information, appropriate emphasis, form, grammar, spelling, and punctuation.

Arithmetic :- Performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical situations; makes reasonable estimates of arithmetic results without a calculator; and uses tables, graphs, diagrams, and charts to obtain or convey quantitative information.

Mathematics :- Approaches practical problems by choosing appropriately from a variety of mathematical techniques; uses quantitative data to construct logical explanations for real world situations; expresses mathematical ideas and concepts orally and in writing; and understands the role of chance in the occurrence and prediction of events.

Listening-Receives, attends to, interprets, and responds to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend; to learn; to critically evaluate; to appreciate; or to support the speaker.

Speaking :- Organizes ideas and communicates oral messages appropriate to listeners and situations; participates in conversation, discussion, and group presentations; selects an appropriate medium for conveying a message; uses verbal language and other cues such as body language appropriate in style, tone, and level of complexity to the audience and the occasion; speaks clearly and communicates a message; understands and responds to listener feedback; and asks questions when needed.

Thinking Skills

Creative Thinking :- Uses imagination freely, combines ideas or information in new ways, makes connections between seemingly unrelated ideas, and reshapes goals in ways that reveal new possibilities.

Decision Making :- Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternatives.

Problem Solving :- Recognizes that a problem exists (i.e., there is a discrepancy between what is and what should or could be), identifies possible reasons for the discrepancy, and devises and implements a plan of action to resolve it. Evaluates and monitors progress, and revises plan as indicated by findings.
Seeing Things in the Mind's Eye :- Organizes and processes symbols, pictures, graphs, objects or other information; for example, sees a building from a blueprint, a system's operation from schematics, the flow of work activities from narrative descriptions, or the taste of food from reading a recipe.

Knowing How to Learn :- Recognizes and can use learning techniques to apply and adapt new knowledge and skills in both familiar and changing situations. Involves being aware of learning tools such as personal learning styles (visual, aural, etc.), formal learning strategies (note taking or clustering items that share some characteristics), and information learning strategies (awareness of unidentified false assumptions that may lead to faulty conclusions).

Reasoning :- Discovers a rule or principle underlying the relationship between two or more objects and applies it in solving a problem. For example, uses logic to draw conclusions from available information, extracts rules or principles from a set of objects or written text; applies rules and principles to a new situation, or determines which conclusions are correct when given a set of facts and a set of conclusions.

Personal Qualities

Responsibility :- Exerts a high level of effort and perseverance towards goal attainment. Works hard to become excellent at doing tasks by setting high standards, paying attention to details, working well, and displaying a high level of concentration even when assigned an unpleasant task. Displays high standards of attendance, punctuality, enthusiasm, vitality, and optimism in approaching and completing tasks.

Self-Esteem :- Believes in own self-worth and maintains a positive view of self; demonstrates knowledge of own skills and abilities; is aware of impact on others; and knows own emotional capacity and needs and how to address them.

Sociability :- Demonstrates understanding, friendliness, adaptability, empathy, and politeness in new and ongoing group settings. Asserts self in familiar and unfamiliar social situations; relates well to others; responds appropriately as the situation requires; and takes an interest in what others say and do.

Self-Management :- Assesses own knowledge, skills, and abilities accurately; sets well-defined and realistic personal goals; monitors progress toward goal attainment and motivates self through goal achievement; exhibits self-control and responds to feedback unemotionally and non-defensively; is a "self-starter."
Integrity / Honesty :- Can be trusted. Recognizes when faced with making a decision or exhibiting behavior that may break with commonly-held personal or societal values; understands the impact of violating these beliefs and codes on an organization, self, and others; and chooses an ethical course of action.

Based on this information, researcher had selected some basic skills of employability which can be taught at secondary schools. This skills are named as basic employability skills.

**IX Std. English Course Book (Marathi / Semi English Medium)**

This course book is based on the recommendations of National Curriculum framework (NCF) 2005. The matter and methodology used throughout the course book in full of interactive mode.

**Objectives**

- To consolidate and extend the language abilities already acquired.
- To develop a conceptual understanding (cognition) of the idioms of English.
- To learn to make effective use of English in real life contexts (application)

**Skill wise Specific Objectives**

**Writing Skill**

**To student to able to**

1. Master the mechanics of writing including the use of punctuation marks, capital letters and spellings.
2. Write correctly, neatly and legibly with a reasonable speed.
3. Write grammatically acceptable and situationally appropriate forms of English.
4. Write answers to questions on textual / non-textual reading material.
5. Frame statements, questions, commands and requests for their appropriate use in different contexts.
6. Develop a paragraph on a given theme considering coherence, logical sequence and connective devices.
7. Write formal and informal letters with the help of given points.
8. Develop a story with the help of given outline / points.
9. Write short imaginary write – ups e.g. personal essays, compositions with the help of guidelines.
10. Write a short reports based on interviews, events and talks.
11. Write a short conversation with the help of given guidelines.
12. Transfer the information from nonverbal to verbal forms such as from tables, charts and maps to write-ups.
13. Fill in a variety of forms in given formats such as admission form and bio-data form.

**Reading Skill**

**To student to able to**

1. Read aloud effectively with correct pronunciation, stress and intonation.
2. Read aloud with appropriate pace and pauses showing awareness of punctuation.
3. Read loud poems with appropriate rhythm.
4. Read silently with reasonable speed, depending on the type of text.
5. Read silently textual and non-textual material for overall / global understanding (skimming), for finding specific information (scanning), for detailed understanding (intensive)
6. Guess / predict appropriately while reading.
7. Deduce the meaning of words, phrases with the help of context.
8. Read informative material such as notices, advertisements, road, signs and news headlines.
9. Learn to chunk or group sentences into appropriate sense groups / grammatical groups.
10. Learn to use a dictionary and such other reference material.
11. Read to understand themes, ideas, emotions, expressed in the text and to respond appropriately.
12. Understand logical sequence of sentences in the text.
13. Read for pleasure extensively the texts within the range of his / her imagination.

**Listening Skill**

**To student to able to**

1. Enjoy and appreciate various types of poems read in context.
2. Understand meanings of words, phrases and sentences in context.
3. Guess meanings of new words and phrases.
4. Understand statements, questions, commands, requests and other such sentences.
5. Understand and respond appropriately to directive language, e.g. instructions, advice, requests and warnings.
6. Maintain his / her attention for a reasonable length of time.
7. Listen for a global understanding so as to be able to give main points.
8. Follow simple narrative, descriptive and other such prose texts read aloud, so as to answer questions set on them.
9. Enjoy and appreciate stories, short plays and short narrations read out in the class.
10. Take dictation keeping pace with the speed of the speaker.
11. Understand and interpret spontaneous spoken discourse in familiar social situations.
12. Listen with understanding news, commentaries, short speeches and such other programmes on Radio / TV / Tapes / CDs, etc.
13. Listen with understanding to telephonic conversation.
15. Infer a speaker’s attitude / intention and the message given in his speech.

1) **Written Communication**
   - Thinking through in advance what you want to say
   - Report Writing Skills
   - Gathering, analyzing and arranging data in a logical sequence
   - Developing your argument in a logical way
   - Briefly summarising the content
   - Adopting your writing style for different audiences
   - Avoiding jargon
   - See written communication skills

2) **Negotiating and Persuading**
   - Developing a line of reasoned argument
   - Emphasising the positive aspects of your argument
   - Understanding the needs of the person you are dealing with
   - Using tact and diplomacy
   - Handling objections to your arguments
   - Making concessions to reach agreement
   - Challenging the points of view expressed by others
   - See persuading and negotiating skills

3) **Verbal Communication**
   - Accurately hearing what people are saying
   - Able to clarify and summarise what they are communicating
   - Being sensitive to their values and feelings
   - Not interrupting
• Helping others to define their problems
• Telephone skills (thinking through in advance what you want to say. Keeping business calls to the point
• Making a speech in front of an audience (thinking way to put across your message, structuring your presentation, using audio-visual aids effectively, successfully building a rapport with your audience)
• Making effective use of body language, dress, conduct, speech
• See communication skills

4) Co-operating (Group work)
• Contributing your own ideas effectively in a group
• Taking a share of the responsibility in a group
• Being assertive – rather than passive or aggressive
• Accepting and learning from constructive criticism and giving positive, constructive feedback to others
• Concentrating that can be improved
• Identifying your strengths and weaknesses
• See team working skills

5) Investigating and Analysing
• Clarifying the nature of a problem before deciding what action to take
• Collecting, collating, classifying and summarizing data
• Being able to use results effectively using text / graphs / tables / pictures
• Finding where the required information is available
• Gathering information systematically
• Formulating questions
• Being able to condense information / produce summary notes
• See decision-making

6) Leadership
• Setting objectives
• Organising and motivating others
• Taking the initiative
• Persevering when things are not working out
• Taking a positive
- Accepting responsibility for mistakes / wrong decisions
- Being flexible – prepared to adapt goals in the light of changing situations
- See leadership skills

**7) Planning and Organising**

- Managing your time effectively / using action planning skills
- Prioritising tasks effectively
- Setting objectives which are achievable and measurable
- Identifying the steps needed to achieve goals
- Using lists
- Being able to work effectively under pressure / managing stress
- Completing work to a deadline
- See time management

**8) Numeracy being able to**

- Use simple statistics
- Calculate percentages
- Multiply and divide accurately
- Read and interpret graphs and tables
- Use a calculator
- Managing a limited budget try our numeracy test
Table for Basic Employability Skills

Which Jobs will Suit Basic Employability Skills

<table>
<thead>
<tr>
<th>Speaking</th>
<th>Writing</th>
<th>Analysing</th>
<th>Planning &amp; Organising</th>
<th>Leading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>Journalist</td>
<td>Copy writer, Translator Publishing Editor</td>
<td>Solicitor, Market Research Editor</td>
<td>Publishing Editor Youth Worker, Police</td>
</tr>
<tr>
<td>Analysing</td>
<td>All Traffic Controller, Speech Therapist</td>
<td>University Research Assistant</td>
<td>Research Scientist</td>
<td>Museums Officer Librarian Marketing Manager</td>
</tr>
<tr>
<td>Planning</td>
<td>Personnel, Careers Adviser Event Organiser</td>
<td>Advertising Account Planner</td>
<td>Logistics Manager</td>
<td>Armed Forces Officer, Retail Manager</td>
</tr>
<tr>
<td>Persuading and Negotiating</td>
<td>Estate Agent, Recruitment Consultant Public Relations</td>
<td>Strategic Consultant</td>
<td>Hotel Manager Retail Buyer</td>
<td>Marketing Manager</td>
</tr>
<tr>
<td>Co-operating</td>
<td>Counselor, Nurse, Speech Therapist Copy Editor, Civil Service</td>
<td>Computer Consultant IT Project Manager</td>
<td>Arts Admin</td>
<td>Training Manager</td>
</tr>
<tr>
<td>Scientific / Technical</td>
<td>Clinical Trials Regulatory Affairs Patent Attorney</td>
<td>Scientific Research Manager</td>
<td>Project Manager</td>
<td>Production Manager</td>
</tr>
<tr>
<td>Creative</td>
<td>Radio Station Assistant Journalist Copywriter</td>
<td>Advertising Account Planner</td>
<td>Teacher Arts Admin</td>
<td>Editor Web Project Manager</td>
</tr>
<tr>
<td>Languages</td>
<td>Interpreter Translator</td>
<td>Internationale Banker</td>
<td>Buyer</td>
<td>Language Teacher</td>
</tr>
<tr>
<td>Practical</td>
<td>Police, Youth Worker TV/Radio Station Assistant</td>
<td>Engineer</td>
<td>Armed Forces</td>
<td>Production Manager</td>
</tr>
</tbody>
</table>
Higher Order Thinking Skills

There is no well established taxonomy or typology to define thinking skills reasoning etc. No single theory adequately explain “how all learning takes place”. But educators, administrators and evaluators have expressed agreement about value of teaching it. Complex ‘real-life problems often demand complex solutions, which are obtained through Higher Order Thinking Skills processes. Teaching Higher Order Thinking Skills, then provides students with relevant life skills and offer them an added benefit of helping them improve their content knowledge, lower order thinking and self-esteem.

According to report of Florida Department of Education (DOE)

Theories related to learning HIGHER ORDER THINKING SKILLS

Dewey described process of thinking as a sequenced chaining of events:

Process of Thinking

Reflection → inquiry → critical thought → lead to conclusion

It can clear obscurities, resolve confusion, unity disparities, answer questions, define problems, reach goals, support decisions and end controversies.

a) Piaget Theory for HIGHER ORDER THINKING SKILLS: The developmental stages (School age → adolescent → adulthood) are the key to cognitive development. The process starts from operational thinking to abstract concepts, scientific reasoning and hypothesis testing.

b) Bruner: According to him stages of cognitive development are not linear and they may occur simultaneously the focus on active learning, active inquiry and discovery, inductive reasoning.

c) Bloom: Lower levels provide a base for higher order levels of learning and thinking. According to him, HIGHER ORDER THINKING SKILLS include analysis, synthesis and creativity and evaluation and require mastery of previous lower order levels.

d) Haladyna: He expressed the complexity of thinking and learning dimensions by classifying four levels of mental processes (understanding, problem solving, critical thinking and creativity)

e) Gardner: According to him, multiply intelligences form a major part of an individual’s dispositions and abilities. Intelligence has seven dimensions like verbal, logical, musical, spatial etc.
Higher Order Thinking Skills are grounded in lower order skills such as discriminations, simple application and analysis, and cognitive strategies and linked to prior knowledge of subject matter content (vocabulary, procedural knowledge, and reasoning patterns). Appropriate teaching strategies and learning environments facilitate the growth of higher order thinking ability as do student persistence, self-monitoring, and open-minded, flexible attitudes.

Assessment of HIGHER ORDER THINKING SKILLS

HIGHER ORDER THINKING SKILLS include critical thinking, problem solving, decision making and creative thinking. These skills are also well defined in Bloom’s Taxonomy of Educational Objectives propounded the hierarchy of learning capabilities.

HIGHER ORDER THINKING SKILLS can be assessed by methods like multiple choice items, constructed response items, performance tests etc.

Validity: It is an evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and action based on test scores or other modes of assessments.

HIGHER ORDER THINKING SKILLS can be measured by a variety of item and test formats

According the Sugrue there are three response formats for measuring HIGHER ORDER THINKING SKILLS.

1) Selection (Multiple – choice, matching)
2) Generation (Short answer, essay etc.)
3) Explanation (giving reasons for selection of a response)

Multiple choice items could be used for assessing micro dimensional thinking skills constructed multiple choice and response items to measure knowledge, comprehension, application and analysis skills.

Assessment Model

Sugrue developed a problem solving model containing three major interacting components.

a) Knowledge structure  
b) Cognitive functions  
c) Beliefs about oneself

a) Knowledge structures are well organized, concepts and principles are integrated and linked to applications by conditions and procedures.

b) Cognitive function are planning and Monitoring. Planning consists of laying out the steps to be followed in solving the problem Monitoring refers to being aware of
different parts of one’s performance, including time spent, time available, progress and changes.

c) Three beliefs about oneself and the task are important in problem solving assessment. It consists student’s
i) abilities to solve the problems.
ii) belief about the difficulty of the task
iii) interest and motivation in completing the task

Samples of Assessment

1) Deduction Thinking

Students are given two statements A and B which are accepted as true. Considering the relation in these two statements, examine the four inferences given and choose the correct alternative [Refer Q.13, Q.14 of Questionnaire] (Refer Annexure)

2) Thinking Skills

Based on curriculum designed by, Florida Department of Education.

3) Killoran

a) Developing standard multiple choice questions test which are specialized for knowledge and skills.
   i) Facts or Opinion [Refer Q.13, Q.14 of Questionnaire] (Refer Annexure)
   ii) Use of reference books

b) Developing Database Questions
   a. Comprehension questions     b) Explanatory questions
   c. Conclusions               d) Predictions

4) Assessment of Concept (Sugreu (1994, 1995)
   [Refer Q.2 (9th std), Q.4 (10th Std. of Questionnaire] (Refer Annexure)

5) Assessment of Principles
   [Refer Q.6 (9th std), Q.5 (10th Std. of Questionnaire] (Refer Annexure)

6) Using insight to solve mathematical and logical problems
   [Refer Q.18, 19 of HIGHER ORDER THINKING SKILLS of Questionnaire]

Entrepreneurial Skills

The ability of the individual possessing wide range of essential skills and attributes to create, cope with and enjoy change and make creative contribution in the world of work whether employment or self employment.
The world is changing fast. Technology is revolutionizing everything. Many of the most sought-after job positions in 10 years probably do not exist today. Yet school prepares our children the same way it did about 40 years ago.

The workplace will be very different for our children from what we experienced. In a global economy, completely and always connected, our children will face competition not only from their local peers, but from students from faraway places. They will fight for an increasing number of delocalised jobs with well-educated, hard-working and less expensive workers from emerging countries. The best way for our students to remain competitive and maintain their standard of living will be to continuously generate value through new ideas and often to create their own job.

School teaches basic skills, a sense of cultural belonging and some values. Obviously these are important and will hardly change. However school should also introduce new dimensions to prepare our children to the new realities. A greater focus on creativity, entrepreneurism and communication, comes to mind.

There is no more safe way to success (study well = strong career). We need to empower and challenge our kids to take calculated risks and not wait for the state or an employer to 'take care' of them. We need to teach them the skills necessary to follow their passion, be pragmatic enough to turn them into new ideas / projects, and to move these forward. These are typical entrepreneurial skills.

**Need for Enterprise Education**

1) Today’s society is demanding all type of entrepreneurial behavior.
2) The younger generation is most likely to find themselves working in a organization closer to entrepreneurial mode.
3) Problems of rising unemployment and underemployment.
4) Planning commission report strongly recommended self-employment youth a way out for teeming unemployed youth.
5) The Globes Monitor Report (2002) research finding show that India has emerged as the second most entrepreneurial active nation.

But the education system in India is not capable of creating entrepreneurial orientation among people and stressed a need to create a strong link between the spirit of entrepreneurial ship and education.
Cultivating Entrepreneurial Abilities

Piaget (1952) shaped our understanding of the thought process of children. Noll (1993) called the nineties as the decade of entrepreneurship and emphasized carefully planned, up-to-date entrepreneurship education at secondary level. Gutner (1994) found the entrepreneurial traits emerge at early age having qualities such as Creativity Problem Solving and internal motivation to succeed.

Characteristics of Entrepreneur

- Passionate about own goals
- A spirit of adventure
- A strong need to achieve
- Self-confident and self-reliant
- Goal-oriented
- Innovative, creative and versatile
- Persistent, don’t give up easily
- Hardworking and energetic
- A positive thinker
- Willing to take initiative
- Able and willing to commit yourself

Skill Levels of Entrepreneurs

Entrepreneurs tend to start ventures that build on specific skills they have already developed and knowledge they have already acquired in a certain occupation or industry, for example, auto repair. But all entrepreneurs tend to share other, more general, skills such as communication, team-building and creative-thinking skills.

- Skill
- Creative thinking
- Planning and research
- Decision making
- Organization
- Communication (oral)
- Communication (writing)
- Team building
- Marketing (selling)
- Financial management
- Record keeping
- Goal setting
- Business management
Aims of Secondary Education

Structure and Goals of the Education System

The education system in India generally follow the $8 + 2 + 2 + 3$ pattern which provides 8 years for primary education, 2 years each for secondary and higher secondary schooling and 3 years of university education.

Elementary education aims to develop literacy and numeracy, acquaintance with the social and physical environment, creative expansion and healthy living. Secondary Education aims to develop the intellectual, social and moral qualities essential for democratic citizenship and to prepare young people for entry into the world.

Contribution of secondary education to economic growth in India

- In India technological innovation, openness to world trade and rapid economic growth have fuelled the demand for skilled workers. Most of the employment growth over the past ten years has taken place in skilled services (I.T., Financial Services, Tourisms etc.) and skill intensive manufacturing, all of which require at a minimum a secondary education degree.
- Even in rural areas job prospects are better for secondary level than of more qualified level.
- “India’s Employment challenges creating job, helping workers.”
- The federation of India chambers of commerce and industry (FICCI) conducted a survey of Indian Industry in July, 2007, whose results clearly showed that the shortage of skilled and semiskilled workers has emerged as critical factors imparting the competitiveness of Indian Industry”. The basic education is again secondary level.
- From industries perspective, a more skilled workforce means worker with at least secondary education.
- Quantitative economic analysis supports the conclusion that marginal private returns to additional education are the highest in secondary education.

Importance of Secondary Education in India

1) Its contribution to economic growth and poverty reduction.
2) Basic qualification for skill workforce
3) Increase in rate of return in Secondary Education than that of higher secondary (FICCI, 2007)
4) It makes an important contribution to democratic citizenship and social cohesion which are extremely important principles in India.

5) There can be no major expansion or improvement of higher education in India without first improving and expanding the secondary education level.

Studies in India

In India, no systematic efforts have been made to conceptualise this concept into school education.

However some work has to report

(1) The recommendation of focus group paper on work and education, national curriculum framework, 2005 (NCERT)

(2) Summer camps organised by Entrepreneurship Development Institute Ahmadabad to foster entrepreneurship spirit among children.

(3) An NGO DHRITI started a project to impart entrepreneurship in the schools.

(4) The Central Board of Secondary Education (CBSE) has started an add-on course in entrepreneurship at the secondary stage in India.

Conceptual Framework about entrepreneurial skills

This concept of entrepreneurial culture in education, though noted to be a new phenomenon in Indian education discourse, however, it would be argued that some aspects has always visible like.

i) Guardian proposal of Nai-Talim (in 1937) emphasizing the need to place productive work at the heart of education.

ii) Work centered education

Historical Overview of employability skills

1) National Education conference held at Wardha, 1937 deliberated upon Gandhijis proposals on Basic Education (Buniyadi Shilesa)

2) The education commission (1964-66) recommended that work experience should be introduced on an integral post of all education.

3) The Ishwarbhai Patel Committee Report (1977) recommended the combination of working and learning.

4) The National Police on Education, 1986 more concerned about student’s entry into workforce.

5) The National Curriculum Framework (NCERT) 2005 Stated that work will be interwoven in the curriculum for the purpose of integrating productive work in the core curriculum as a pedagogic medium for acquiring knowledge building values, skills formation, promoting critical thinking, creativity and other generic competencies.
According to Arom, Meechai In order to solve the process of learning and organizing education, the State and the public must work together by improving the educational methodology. The 3CAPS model which combines the theories of Learning Happily, Participative Learning, improving the process of Thinking, and improving Aesthetic Learning, works successfully, and treats the learners as human beings. It can remedy the problems of learning, the problems of the economy, the problems of society and the problems of politics. Thus secondary education is a fundamental of life, especially for the youth.

Chantana et al. noted that Secondary education is fundamental education for all, in accordance with the 1992 National Education Plan of Thailand. It has already been expanded to every rural community now. The major principles are: the all-round development of human resources, the preservation of nature and the environment, the balance between external technology-know-how and traditional wisdom, and the balance between being self-supported and being interdependent.

Zhenxing observed that in the basic education of China, a major problem which has to be settled urgently is to abandon the traditional examination-directed pattern of education and to establish a new pattern - quality-enhancing education. The traditional pattern aims at the college-entry examination, causing overburden to the students. The new pattern, however, can succeed in making students capable of meeting the challenges of the 21st century.

Paul in his research observed that Papua New Guinea (PNG) thrives on its rich natural resources and cultural diversity accounting for more than 85 per cent of the population which continue to depend on rural subsistence economy. As a resource rich country with tremendous potential for economic growth, PNG however continues to suffer from converting its wealth to useful assets for the benefit of future generations ‘unless it gives priority to the health and education of its people within a well defined Strategy for sustainable development’( UNICEF 1998).

Denise noted that the Knowledge Era is at hand, moving us beyond the Industrial and Information Ages. The twentieth century model of education, Platonic in style and reminiscent of the Agricultural Age from which it emerged, will not meet the needs of the twenty first century. The new era is already challenging the value and concept of classic and traditional schooling, as learning in concept takes on new definitions and in delivery has new and different purveyors.
A new school client with special competencies not limited by specific skills training, employment programme strategies or degree-based qualifications, is the charter for education in the new millennium. This new client will operate in a world of work and lifestyle options outside of the past and present-day paradigm of ‘the job’. A learning value chain exists which is about lifelong learning – a learning which by its very nature is not limited to the domain of the compulsory schooling mechanism. Accordingly, secondary schooling, must make its niche in the education market place. New and various forces compete with compulsory education in the skills and knowledge arena and so secondary schooling must redefine itself in the new millennium. The focus for the new learning paradigm must be the client and not scores; on learning not curriculum; and on the holistic dimension of life preparation to include attitudes, and not just measurable skills and knowledge.

Redefining the ‘c’ in secondary education: the challenges of the 21st century client, competencies and curriculum, will consider:

- the relevance of secondary education- pedagogy, curriculum, teacher education, flexibility in delivery;
- employment versus employability in the guest for sustainable futures for youth; and
- innovative learning experience and opportunities.

Various business and learning examples will be cited and the presentation will include examples of business and student interaction, and partnership in a dynamic visual format.

Munkhjargal study indicated that “The Mongolian human resource development and education reform Master Plan” is one of the central to educational development policy Six major education and human resource activity areas are identified in the Master Plan namely, preservation and enhancement of basic and generals secondary education for both rural and urban populations, reforming higher education to serve national development needs more effectively, rationalization of systems of providing vocational skills, providing appropriate learning opportunities for out-of-school youth and adults.; meeting the needs for improved educational management; increasing the efficiency of the MOE (Ministry of Education) structures and operations.

Pornchulee et al purpose of this research is to study the future scenarios of Thailand and the world in the 21st Century so as to propose an educational model for equilibrium in the context of 21st Century in Thailand. The methodology employed was the future scanning process wherein approximately 200 documents, comprising texts, research results, articles and seminar proceedings were scanned and 30 experts contributed in scrutinizing the draft model according to the Connoisseurship Model procedures of naturalistic inquiry.
The results from the scanning process revealed both the Thai and the World contexts, which were presented in a paradigm and five dendograms, namely, (1) Thai context towards the future; (2) Thai economic context; (3) Thai social and cultural context; (4) Thai political context; (5) Thai educational context, upon which the proposed model are based. The final draft of the model was presented as a paradigm and a table comparing scenarios of the 21st Century Thai education with and without the reform proposed by the model, encompassing the following attributes: (1) A Composite Profile; (2) Morality, Ethics and Values; (3) Curriculum; (4) Instruction; (5) Disciplines; (6) Evaluation; (7) Directions and Resources; and (8) Administration.

The paper by Sapra attempts to analyse the problem of youth arising out of changes in social, political, economic, technological and cultural domains in India since independence. The analysis reveals that the impact of such changes as the breakup of the joint family system, increasing divorce rates, environmental degradation, population explosion, criminalisation of politics, increasing incidence of unemployment, breathtaking technological advancements (particularly information technology revolution, cable TV, etc.), and the erosion of values on the psyche of Indian Youth, have been so great that it has rendered the youth virtually directionless and totally confused.

The paper also traces in historical perspective the process of secondary education reform in India in terms of its quantitative expansion and qualitative improvement during the period 1947-1997. Keeping in view the equity principle, quantitative expansion throws light on achievements in providing secondary education facilities for the underprivileged segments of population, such as girls, scheduled castes, scheduled tribes and minorities. Qualitative improvement covers such areas as structure, facilities, curriculum, teaching methods, instructional materials, teacher education, evaluation, supervision, etc. The paper also examines how secondary education reform has impacted the problems of youth.

The paper concludes that the reconstruction of secondary education attempted in the last fifty years has been merely cosmetic in nature. It also argues that, because of excessive emphasis on rote memorisation, addition of more subjects in the name of ‘curriculum enrichment’ and virtual neglect of noncognitive aspects, the secondary education reform has failed to address the core problem of the increasing tension among students, this pushing some of them into drugs, sub-social activities and, in some cases, even to committing suicide. The paper, inter alia, suggests that secondary education in India in the new millennium will have to be revamped by placing equal emphasis on the development of EQ (Emotional Quotient) as that of IQ, and training students in stress management.
The work by Strangward indicated that for at least three decades there has been concern in the developed countries about the pessimistic attitudes shown by young people. They may be worried at the personal level about opportunities for their future employment; many feel overwhelmed by the changes in the world and the responsibilities they feel for sustaining the ecology of our planet, protecting its resources, facing and solving global crises. As educators, we must help our young people face their concerns with optimism and confidence. A key step is to prepare them for making important decisions about their future tertiary courses and/or employment. The Future Problem Solving Programme trains students to explore issues, think critically, futuristically and positively, work independently and in teams. With the explosion of information available on the Internet, educators cannot give students all the content they will need for their futures. They must learn research skills to discriminate so that they select relevant material. They must learn thinking. Skills to use burgeoning technology. They must learn to think creatively about employment. Although, as its name implies, FPS has its main thrust in the future, this paper will demonstrate how the FPS process may be used for decision-making and community problem solving in the present. This training will help prepare students to become an ethical workforce in the future.

The Australian programme has shown the flexibility of the components of the FPS programme: its adaptability for general classroom use so that all students may experience success with him proved skills in communication, problem solving and an increased optimism towards their own ability to contend with issues emerging in the future. The work by Winter greatly discussed The UNESCO Delors Report (‘Learning: The Treasure Within’) presents a vision for education in the next century in which great importance is placed on ‘learning to be’; broadly entailing the development of personality, and specifically involving the enhancement of abilities to act autonomously, to exercise judgment and to accept personal responsibility. Further, the Delors Report discusses the many tensions to which people are subjected in today’s complex world. In view of these tensions, it is particularly important that schools develop students’ abilities for purposeful and positive social problem solving.

This paper describes one approach to the development of these faculties. The “Thought Power” programme aims to cultivate students’ ability to harness helpful thoughts and suppress harmful thoughts in solving their personal and interpersonal problems. A version of the programme was used in a secondary school in Hong Kong. The programme focused on topics such as (i) identifying unpleasant feelings, (ii) becoming aware of the role of thoughts in generating feelings, (iii) identifying harmful thoughts that prompt unpleasant
feelings, (iv) identifying automatic harmful thoughts, (v) replacing harmful thoughts with helpful thoughts that generate positive feelings, and (vi) making helpful thoughts thoroughly automatic. Data suggest that the programme can lead to reduced levels of harmful thinking and increased levels of helpful thinking, with consequent reduced stress levels, increased happiness and, importantly increased perceptions of control by students over their own lives. This, and other, research offers support the case for incorporating programmes designed to foster positive thinking patterns in secondary schools of the 21st century.

Xian in his study indicated that China, as a developing country with rich human resources, attaches great importance to its manpower system reform. Secondary education plays an important and far-reaching role in this project. (By secondary education, we mean the level between the junior middle school and the university.) The junior middle school graduates are too young and inexperienced, so they must receive further training. Today, we need skilled workers and technicians as well as scientists, and there are far more skilled workers than scientists in China. Some measures taken to promote secondary education include: general education and job-training courses to be merged; private school to be supported; and the employment of more graduates from the secondary education schools.

By reviewing above papers abstracts, following points were considered for this research.

i) Secondary Education can play a major role for Human Resource Development.

ii) Secondary Education in India will have to be revamped, restructured by placing equal emphasis on the development of basic employability skill.

Studies in Overseas

Employability skills are not unique and are of growing importance in the international context. Canada and Singapore have their own systems, referred to as employability skills, while the US (SCANS Competencies) and the UK (Key Skills) address a similar set of generic or soft skills. Each of these systems is similar in that they are not specifically designed for the higher education sector. With the exception of Key Skills in the UK, which is primarily directed at secondary students, all of these systems were developed for vocational education systems.

A scan of international literature in this area shows that there is no agreed definition of the term 'employability'. Some argue that employment rates following graduation, is a sufficient measure of employability. Others go beyond this and emphasise the importance of performance in those job roles. Little describes employability as: a set of achievements, understanding and personal attributes that make individuals more likely to gain employment.
and be successful in their chosen occupations. (Sirca defined employability as: a set of achievements - skills, understanding and personal characteristics - which help graduates to become employable and successful in a chosen career.

In Canada and the US, work based learning, either as voluntary experience or paid work, and individual student portfolios are the preferred methods for developing and recording employability skills\(^39\) (Little, 2003). In Hong Kong, the University Grants Committee surveys approximately 2000 employers each year to determine their satisfaction with graduates from the local universities, and results are fed back to the universities.

The higher education sector, throughout Europe in particular, has increasingly focused on the importance of the concept of employability. In Europe the changes to higher education brought about by the Bologna Process have given it a particular emphasis, as seen in the introduction of separate study cycles; firstly an undergraduate level, which is linked to the labour market, and a postgraduate level, which leads to Master's or PhD level qualifications\(^40\) (Sirca et al. 2006). A number of supporting European projects have occurred which address employability outcomes and have also begun the work of articulating the differences that exist across disciplines and national boundaries.

There is a wide variety of approaches taken in different countries. England, Scotland and Wales appear to be the only countries that have national approaches to employability skills in the higher education sector (as distinct from institutional practices, or practices that are designed primarily for school students, or adults with little or no formal qualifications). Baxter and Young report the results of a survey of manufacturing, services, public, wholesale, and retail employers to determine what skills and attitudes are of greatest importance on the job, which skills and attitudes require more emphasis in the schools, and how they determine whether workers possess desired skills and attitudes.

Beach research on the employability skills desired by employers describes development and piloting of a training program, the Affective Competency Workshops, intended to help employees identify employability skill areas in need of improvement and to address these systematically. Evaluations of the pilot effort were positive.

The Commission on the Skills of the American Workforce Discusses the problem of low productivity in the American economy, skill needs of prospective employees as expressed by business and industry representatives and recommendations for improving skills and school-to-work transitions of American school children.
Painter in his research reports the results of a literature review and a study concerning the kinds of communications skills needed by students in technical career preparation programs and contrasts these with findings about the types of communications skills these students are typically taught.

Poole cites the human relations capabilities employers identify as the most important for prospective employees to have and argues that work experience programs are the best means of inculcating these capabilities in students.

The following is a summary review of SCAN report; (1992, 2000)

Restates findings from other SCANS investigations as a context for making recommendations for fundamental restructuring of education to equip students with skills for the employment market of the future.

Identifies the job-relevant skills identified by the SCANS group and gives examples of how they are applied in a variety of jobs. Also focuses on specific occupations and shows how each makes use of the SCANS skills. Provides suggestions for the use of the resource by people in different professional roles.

Offers educators ideas for teaching the SCANS competencies by providing examples of activities to use with students, organized by traditional curricular areas and by specific jobs. Describes real-world projects that have been undertaken to teach the SCANS skills. Includes sections on ESL students, computer literacy and assessment.

Identifies and discusses the ways that the workplace has changed in this century and introduces and describes the components that make up the SCANS "Workplace Know-How."

Describes five scenarios—from the manufacturing, health services, retail trade, accommodations and food services, and office services sectors of the economy—to illustrate how this know-how is applied in actual work situations. Offers recommendations.

The critical employability skills identified by SCANS report considerably revealed those that were cited most frequently and arranged in three categories of basic skills, high order thinking skills and affective or personal skills. The results of this survey confirms that specific occupational skills are less crucial for and employees than that of high level of literacy, ability to communicate etc. Employers place quartet importance on employee attitude, basic skills, thinking skills etc. Employers find for too many employees deficient in employability skills and want the schools to place more emphasis on developing these skills.

The SCANS report offers educators ideas for teaching SCANS skills / competencies by providing examples of activities to use with students.
Packer identifies generic skills and competencies in the SCANS report as basic to all employment and discusses the need for educators and business people to collaborate to assure to develop skills.

Lankard indicated that in the schools setting employability skills are best taught and learned when class rooms replicate the key features of real work place.

Stasz et al. investigated the instructional and classroom practices to determine generic employability skills they seek to teach of how these skills are imparted in students. Lankard summarizes research on the generic employability skills employers desire in job applicants in addition to basic and job-specific skills. Cites approaches indicated by research as effective in fostering the development of these skills in secondary students.

Rand in his research presents the results of a study aimed at identifying the essential features of classes which were successful in imparting to students generic work skills and work related attitudes.

A more complete report of this research may be found in Stasz, et al. (1993), as follows: the research indicates that the Manpower Demonstration Research Corporation to identify the features of school-to-work transition programs that have been successful at moving disadvantaged young people into productive postsecondary employment or additional education. Cites 10 key elements.

Stasz et al. investigate the instructional and classroom management practices of four successful vocational educators to determine what kinds of generic employability skills they seek to teach and how these skills are imparted to students. Classroom observation, surveys, and interviews were used to gather information.

Bhaerman and Spill presents the research- and experience-based views of two experts in the vocational education field, including convictions about what constitute employability skills, what practices are most effective in developing these skills in students and employees, and what kinds of assessments enable teachers and employers to know whether and to what degree students possess employability skills.

Byrne research indicated that the "more or less do-it-yourself system for making the transition from school to work" prevalent in the U.S., contrasts this haphazard approach with the systematic approach taken in other countries, and identifies components of the "overall systemic change" advocated by the authors.

Charner explains the concept of employability credentials-documentation of a young person's development of employability skills and discusses the Career Passport program, a specific approach to documenting and displaying the employability skills students have acquired.
Herr and Johnson identified employability skills within the three categories of general, occupational, and firm-specific, and discusses activities that can be undertaken by guidance and counseling personnel to help students develop general employability skills.

Kazis and Barton criticizes the haphazard manner in which school-to-work transitions occur in the U.S., and contrasts this with the efficient and systematic transition systems in Japan and several European countries. Identifies promising practices and makes recommendations for federal initiatives.

The research by Poole contains classroom activities intended to integrate employability skills into Wisconsin's K-12 curriculum. For each of nine skills, activities are provided for lower elementary, upper elementary, middle/junior high, and high school students. Employability skills curriculum content was derived from extensive research on skill needs and deficiencies of entry-level workers.

Human capital theory by Schultz (1963) According to Schultz, Human capital theory which displayed the role of investment in education in order to boost economic and social achievements Education is a process to create potential and talent. It is also intended to train, discipline and reveal one’s ability. This means education and the increase of productive workers among students is a form of human investment

Human capital is also regarded as a labour input for a country’s economic growth and development. Also investment in education is very useful for increasing worker’s productivity and a nation’s economy. It is the economical gain towards the nation.

Becker believed that height of workforce production have positive relationship with educational and training form. He also explained that education through knowledge delivery and useful skill presentation would be able to increase employee’s productivity and at the same time lead to increase of incomes which would improve employer’s life. That income becomes motivation to work hard and aspiration in a career.

Education and training (skills development) are lifelong learning process and functions as the key to produce qualified and skilled human capital.

According to Lange and Topel a person with great skills will be able to increase employers or the workplace productivity. Buck and Barick state that employability skills are non technical skills. The characteristics of employability skills are reading, arithmetic, problem solving, decision making. According to Robinson employability skills are the basic of skills needed for one to get job and enable him or her to carry out duties well.
From the above review it was concluded that:

A) Employers want entry level employees to possess an array of Basic, Higher Order and affective employability skills.

B) The demand for Basic (Academic), Higher Order Thinking and affective (personal) employability skills reflects profound changes in the workplace.

C) Employability skills are best learned when they are included among instructional goals and explicitly taught in secondary schools.

D) In the secondary schools setting employability skills are best taught and learned when class rooms replicate the key features of real work place.

Based on above conclusions and research about basic employability skills researcher under guidance of his guide and experts advice decided to focus following basic employability skills for this research.

1) Reading skills
2) Writing skills
3) Listening skills
4) High Order Thinking Skills
5) Ethics and Values
6) Motivation
7) Entrepreneurial Skills
8) Self Confidence
### Table: Definitions of soft employability skills and attributes

<table>
<thead>
<tr>
<th>Skills / attributes</th>
<th>Definition</th>
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<tbody>
<tr>
<td>(Self) confidence</td>
<td>Belief in oneself or one’s abilities</td>
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<tr>
<td>Self-esteem</td>
<td>A positive or negative orientation toward oneself; an overall evaluation of one’s worth or value</td>
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<tr>
<td>Motivation</td>
<td>Interest / engagement, effort and persistence / work ethic</td>
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<tr>
<td>Self-efficacy</td>
<td>Belief in one’s ability to succeed in a particular situation</td>
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<tr>
<td>Social / Interpersonal skills</td>
<td>Ability to interact appropriately with other people, without undue conflict or discomfort</td>
</tr>
<tr>
<td>Communication skills</td>
<td>Ability to convey information effectively so that it is received and understood; appropriate verbal / nonverbal communication with colleagues, managers and customers / others</td>
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<tr>
<td>Teamwork</td>
<td>Ability to work cooperatively with others</td>
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<tr>
<td>Assertiveness</td>
<td>Ability to confidently express views or needs without either aggression / dominance / undue submissiveness towards others</td>
</tr>
<tr>
<td>Self-control</td>
<td>Ability to control own emotions and behavior, particularly in difficult situations or under stress</td>
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<tr>
<td>Reliability</td>
<td>Attendance, time-keeping, consistent standards</td>
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<tr>
<td>Positive attitude</td>
<td>Keen to work, learn, accept feedback and take responsibility</td>
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<tr>
<td>Presentation</td>
<td>Consistently clean, tidy and appropriately dressed, with a polite and professional manner</td>
</tr>
<tr>
<td>Planning</td>
<td>Ability to plan tasks and monitor progress</td>
</tr>
<tr>
<td>Problem-solving</td>
<td>Ability to identify problems and devise solutions</td>
</tr>
<tr>
<td>Prioritising</td>
<td>Ability to identify and focus on priority tasks</td>
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</tbody>
</table>
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