

## **An exploratory study on cognitive life skills**

**Jaya Pandey**

M Ed Student, The West Bengal University of Teachers' Training, Education Planning and Administration, Kolkata, India. email id – [ms.jaya.pandey@gmail.com](mailto:ms.jaya.pandey@gmail.com)

### **Abstract:**

In a progressive curve of technology and data driven world, much of the focus in education has shifted towards STEM-based (science, technology, engineering, and math) initiative that prepares student for scientific temperament and aptitude that propels and create new career prospects in near future. During this rapid educational development, struck COVID-19 pandemic that stalled global education society. But for intuitive educators COVID-19 is a quintessential, adaptive and transformative phase that allowed to learn survival life skills and unlearn or relearn other dated knowledge. Thus life skills can be defined as the building block or framework that permits student to apply the knowledge acquired in educational institution to real world problems and situations. An exploratory study and systematic review was conducted to investigate the literature on effectiveness of life skill initiatives. The aim of this review was to gain an exhaustive understanding on the effectiveness of life skills education universally and to prioritize these skills in current educational situation to develop cognition. Findings revealed differences in life skill education across the globe and encourages individual differences in education. It also indicates lack of systematic implementation, evaluation and monitoring that could promote positive behaviour among students. Cognition can be prompted through a flexible customized content and curriculum transaction that would enhance the ability to analyse abstraction and induce divergent thinking to solve practical problems from multiple perspectives, experienced through life skills. It grades effective communication skills which are just as important as technical knowledge in a particular field or academic subject. It is evident in developing countries like India, life skill programs in education are often conducted to yield short term results only.

### **Keywords:**

Cognition, COVID-19 Pandemic, Education, Learning, Life skills.

**Introduction:**

Headlines on education are not breaking news but a global concern that should intrigue educators, as it is a reflection or a feedback mechanism to the current academic system. Some alarming statistics evident from our daily newspaper are ninety percent of students are victim of bullying, one out of seven student is contemplating suicide, substance abuse – juvenile delinquency is an epidemic, child-abuse and violence are a part of everyone's life now. So as a society it is required to ask for help and one such warrior is life skill that would aid to survive cognitive learning. The study emphasizes the need for students to make informed choices, propose solutions, create and judge ideas to express opinion and solve day to day life. An extensive body of research indicates appropriate life skill exposes student to adapt in changing environment in comparison to those student who are taught in maladaptive strategies and may evolve anti-social tendency. This work attempts to provide an insightful approach to cognitive life skill. Herein a used term 'life skill', is not an ascribed trait, rather, it is what a person achieves thru training or experience in life. According to Macmillan Education, "In a constantly changing environment, having life skills is an essential part of being able to meet the challenges of everyday life. The dramatic changes in global economies over the past five years have been matched with the transformation in technology and these are all impacting education, workplace, and our home life." But life skills go well beyond choosing a major subject in college or impressing a potential employer in the future. Life skills provide children important tools for development, such as independent thinking, how to socialize and make new friends, and how to take action in situations where their parents or teachers may not be around to help or intervene (dealing with a bully or personal insecurities and fears, for example). Unlike motor skills and basic intelligence, executive function and decision-making skills are not innate but learned.

This study draws a picture of how life skill could be incorporated in content and curriculum to function efficiently everyday school life, as envisioned through the lens of an educator. Life skill education that propels motor-cognition is discussed with reference to formal structures as set by the education system and also through informal approaches by teachers. Previous literatures on life skill was considered in arriving at main component of life skills to be stated in this research work. Cognitive Life skill has been gaining traction in the field of education as international organisations like UNICEF and World Health Organisation (WHO)

are encouraging more holistic education. Traditionally, education is religion based utilitarian practice with the purpose of producing skilled labour for the economic market (Besant, 2014). However, as institutions strive for academic excellence, the study of essential skills that equip to deal with life effectively is questionable. According to Noddings (2005, p.34), schools should promote “healthy, competent and moral people”. This involves equipping pupils with appropriate life skills that would help them to lead “healthy and productive life” (UNICEF, 2012, P.1). Thus it makes sense to understand and implement cognitive life skills in today’s education system. This paper starts with the introduction of cognitive life skill through various definitions and its component as stated by researchers and agencies. It is followed by discussion and examples of life skill initiatives. Benefits and effectiveness of cognitive life skill as comprehended through previous research studies.

**Rationale:**

Cognition encompasses a collection of mental intellect for perception and intuition resulting values, ethics, resilience, compassion and solidarity to evolve a human life. It is not used only for transference of knowledge or generating financial benefits or academic promotion, which are byproducts or outcome of education but it is an insightful learning to analyze life. Different perspectives towards educational research work influences cognitive, conative and psychomotor domains. These are the building block towards a qualitative education system. ‘Education for All’ in coming years would amalgamate gender, race, ethnicity, socio-economic status, demography, geographical location, digital divide and political participation to transform a global citizen that successfully sustains educational crisis through cognitive life skills. So, this study aims to predict educational perspective and integrate life skills with cognition to adapt man in an ever-changing environment.

**Limitation:**

Current study is limited to the observation of literature related to cognition and life skills during educational crisis like COVID 19. Moreover the data collection got restricted due to pandemic situation and national lock-down. The research was limited to 120 samples only.

**Objectives:**

1. To understand life skill as a factor of cognition.
2. To study if there is a difference between cognitive life skills of secondary school students on basis of gender.
3. To explain cognitive life skill of secondary school student on basis of school-types.
4. To apply cognitive life skill in educational life.

**Hypothesis:**

Ho1- There is no significant difference between cognitive life skills of secondary school students on basis of gender.

Ho2- There will be no significant difference between cognitive life-skill of secondary school students on basis of school-type.

**Methodology:**

This research comprises of Mixed Method that amalgamates Qualitative and Quantitative techniques. The basic nature of the study is descriptive. A survey was conducted on cognitive life skills in secondary sections of government school and private school in Kolkata. Random sampling technique was used to select school. Sample comprised of 120 students (56 private and 64 from government). Data collected by using Cognitive life skill test on three dimensions-critical thinking, problem solving and decision making. The survey comprises of 30 items of objective type presented as a questionnaire and 45 minutes was the duration to complete the Google form. Statistical technique of mean, standard deviation and t-test applied to derive the result.

**Findings and Interpretation:**

Figure 1 and Figure 2 compares thematic analysis as a descriptive approach to the data interpreted to understand different elements of life skill as a factor of cognition. It also becomes evident that cognitive life skill is imperative to academic journey.

Figure 1 has **Life skill** that corresponds to **Cognition** building in figure 2. So, **Mind mapping**, as an element from figure 1 enhances **Memory** from figure 2. And, **Concentration**

from figure 1 corresponds to **Attention span** in figure 2. Similarly, **Decision making** from figure 1 analyses the element **Comprehension** in figure 2. And, **Critical Thinking** from figure 1 prompts **Creativity** in figure 2. Similarly, **Problem solving** from figure 1 helps **Association** in figure 2. And finally, **Time management** from figure 1 inspires **Motivation** in figure 2.

Figure 3 depicts pie graph suggesting overall percentage of students having high, low and average scores on cognitive life skills. Result indicates high percent of students have average score (around 78%) in comparison to 9% for low level and 13% high level scores on cognition.

Table 1 indicates t-value (1.06), which is non-significant at 0.05 level of Significance. That is Cognitive life skills is not differentiated on basis of gender. It reveals both boys and girl have similar average scores on critical thinking, problem solving and decision-making. Though result of present study is statistically insignificant but it shows slight high mean for girls at 11.57 than boys at 10.72

Table 2 indicates- mean of private school is higher than mean score for government school on cognitive life skills. On calculating t test (2.51) it shows private school students have better cognitive life skills as compared to government school due to diversified exposure. Hence, there will be no significant difference between cognitive life-skills on secondary school student on basis of school-type Hypothesis Stands rejected.

### **Discussion:**

**Cognitive learning** is a change in knowledge attributable to experience (Mayer 2011). This definition has three components: (1) learning involves a change, (2) the change is in the learner's knowledge, and (3) the cause of the change is the learner's experience. An example of cognitive learning includes being able to give the definition of cognitive learning.

**Critical thinking** is a higher order skill which evokes questioning, analyzing, investigating, divergent thinking, supporting children to make informed decisions and not succumb to peer pressure (Fitzpatrick, 2014). It is the ability to distinguish between true and false information, beneficial and harmful content, and valid and questionable literature available online. Fun and simple-to-organize activities, like game nights (or afternoons) with family and friends

with an educational focus that also encourage working in teams, can help to build social and interpersonal skills. Building life skills is essentially an exercise in helping children develop sound judgment and good habits for long-term stability, wellness, and success.

**Everyday Survival Skills** learning how to tie their shoes and get dressed, young children should know what to do in common situations as well as emergencies, such as: How to get to and from home and school, Who to call in an emergency (memorize phone numbers), How to safely cross the street, What to do if they are bullied or witness bullying, How to safely use kitchen appliances and prepare basic meals, How to do the laundry.

**Problem solving and decision making** in education equips student with knowledge and skills necessary to solve complex problems. An educated person is one who learns how to draw together knowledge from different disciplines and determines best solution from alternatives and evaluate future consequences of present actions and the actions of the others to analyze the influence of own values system. Problem solving is a fundamental initiative to acquire strong foundation stone to build life skills. School curriculum should incorporate strategies that require higher-level thinking skills such as inference, prediction, analysis and critical thinking.

**Physical and motor skills** can be enhanced by washing clothes, preparing food, making a bed and vacuuming a carpet (Eddison, 2017). Growing plants, cleaning the house, budgeting, paying bills and household skills include craft such sewing and knitting (Fitzpatrick, 2014). Parents can take an active role in teaching life skills life skills at home with projects that provide real world examples and lessons in decision making and problem solving. They can be as simple as assigning household chores and budgeting exercises through an allowance, to caring for a pet or volunteering in the community.

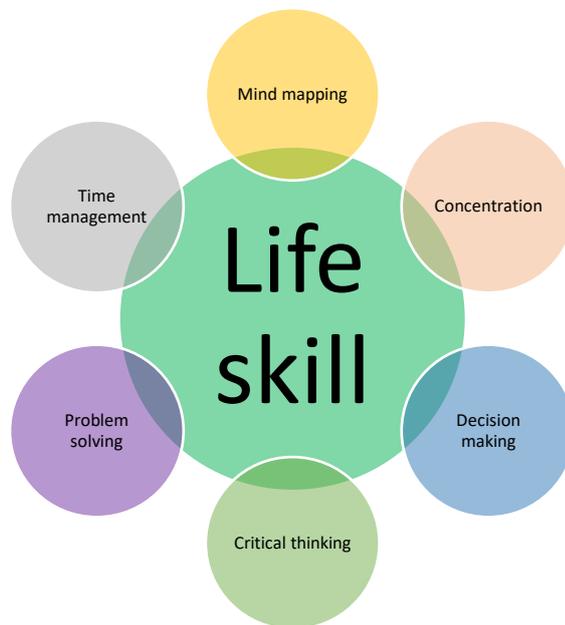
**Health Maintenance** is the ability to be physically active, feeling good about one's body, nutritional maintenance and monitor oneself through assessing self-view and clarify values (Waldron, 2009). It also includes physical habits, expression of thoughts, emotions, spirituality and effects of drug use. To create a purpose in life by standing up for oneself and value positivism (GOT as cited in Waldron, 2009). It is a physical-psychological skill, applying techniques to sustain right posture (Papacharisis, 2005). It is self-assessment exercise about one's physical fitness and how to promote it through regular check. Children should be taught everyday survival skills like brushing their own teeth

**Conclusion:**

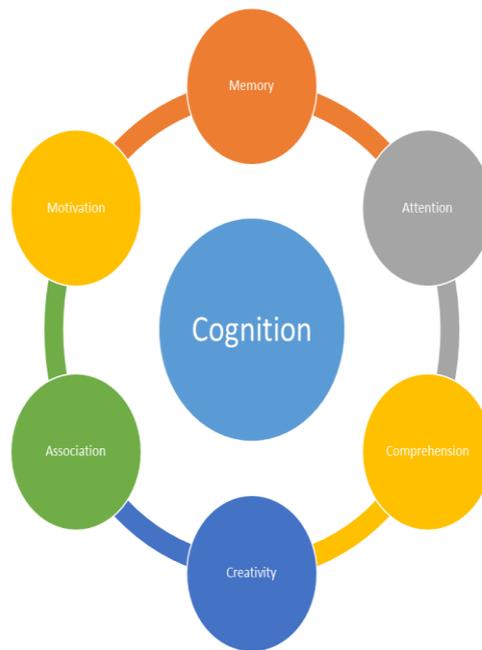
Cognitive skill is a social, psychological and intellectual ability that enables individual to face the challenges and adapt to the demands of ever-changing life. It offers an extended and comprehensive educational process to help students overcome negative behavioural patterns and enable them to be more productive in their environment. It allows to evolve cognitive restructuring style of curriculum development and life skill based strategies that can be infused into academic courses. It also signifies dynamic representation of educational content on life skills relating to dimensional measurements of human cognition. This relational understanding will help policymakers, practitioners and researchers to frame a complex cultural reterritorialization of the educational network, from its text-based foundations to more psychologically rooted institutions.

**Figures and Tables:**

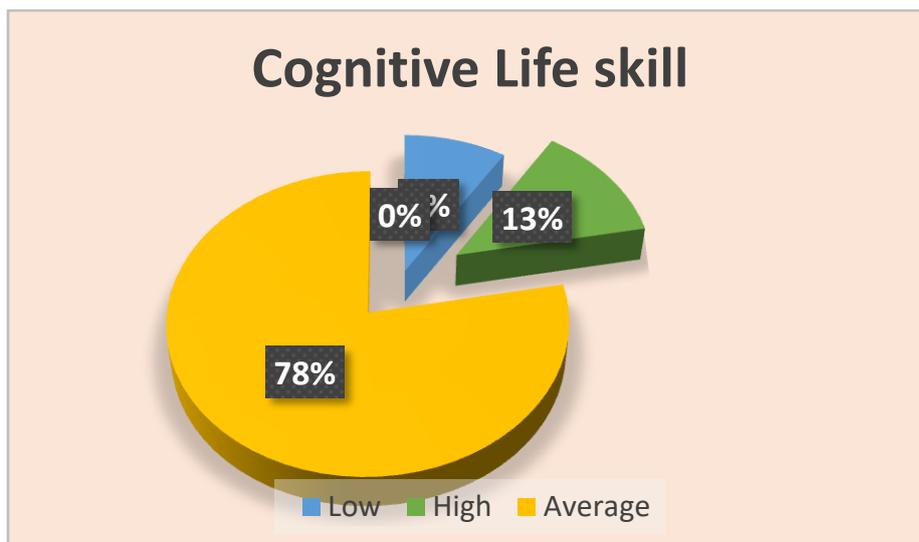
**Figure 1 – Graphical representation of the elements of Life skill**



**Figure 2 – Graphical representation of the elements of Cognition**



**Figure 3 – Pie graph expressed in percentage of student’s achievement on cognitive life skills**



**Table 1 – Testing null hypothesis Ho1 student’s achievement on cognitive life skills based on gender**

Gender	N	Mean	SD	SE d	t-value	0.05 level
Boy	69	10.72	4.92	0.80	1.06	Non-significant
Girl	51	11.57	3.84			

**Table 2 – Testing null hypothesis Ho2 student’s achievement on cognitive life skills based on school-type**

School type	N	Mean	SD	SE d	t-value	0.05 level
Private	56	12.12	4.12	.573	2.51	Significant
Government	64	10.17	4.37			

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