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Life Skills and Cognitive Abilities of College Students in Mizoram, India with reference to their stream of study

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Abstract

The present study attempts to find out the life skills and cognitive abilities of college students in Mizoram, one of the states of India situated in north eastern corner of the country. Stratified random samplingmethod was employed for selection of samples. A sample of 523 students was taken from different colleges in Mizoram. Life skill inventory developed by the investigators and Raven's Standard Progressive Matrices (2000) were used to collect data. It was found that majority of the students possessed normal life skill abilities. It was also found that majority of the students had average cognitive abilities. Science students had better life skills and cognitive abilities when compared to commerce students. Also, it was found that science students possessed higher cognitive abilities when they were compared to arts students. It was also found that there was a positive correlation between life skills and cognitive abilities among college students in Mizoram.

Keywords: *Life skills, Cognitive abilities, College students*

Introduction

Life skills are defined as "the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life". 'Adaptive' implies that a person is flexible depending on the situation and is able to adjust to different circumstances. 'Positive behavior' means that a person is able to look forward even in difficult situations and can find a glimmer of hope and ways to discover solutions (WHO, 1997).

UNICEF (2010) defines life skills as "a behavior change or behavioral development approach designed to address a balance of 3 areas: knowledge, attitudes and skills". Elements of life skills that are common in all contexts around the world, whether in developed or developing countries are known as 'Core Life Skills'. These core skills include self-awareness, problem solving, decision making, critical thinking, creative thinking, interpersonal relationship, effective communication, empathy, coping with stress and emotion.

Ten Core Skills:

According to WHO (1997), there are three categories of fundamental Life Skills which include ten core Life Skills explained as follows:

A. Thinking Skills include five core Life Skills:

1. Self-awareness: It entails our clear understanding of ourselves, including our identity, character, strengths and weaknesses, desires and dislikes.

2. Problem solving: Constructive problem solving enables a person to solve issues in a clear and non-confusing manner by identifying the cause of the problem and taking constructive efforts to resolve it.

3. Decision-making: It is the ability to make the right decisions at the right moment, depending on the situation.

4. Critical Thinking: It is the ability to objectively analyze information, facts, opinions, circumstances, and experiences.

5. Creative thinking: This is the ability to think outside the box and not stick to one thought process in different scenarios.

B. Social Skills include three core Life Skills:

1. Interpersonal relationships: It indicates that everyone must live in a society and have cordial relationship with others.

2. Effective Communication: It implies that a person can express their feelings, thoughts, and opinions of themselves in ways that are appropriate to our culture and surroundings, both verbally and non-verbally.

3. Empathy: It is the ability to sense another person's life circumstances at any given time, even if we are unfamiliar with the issue.

C. Emotional Skills include two core Life Skills:

1. Coping with emotions: It includes identifying emotions in ourselves and others, as well as understanding how these emotions affect our patterns of behavior. After recognizing the emotions, one can respond appropriately to them.

2. Coping with Stress: Coping with stress means recognizing the sources of stress in our lives and understanding how they affect our mental and physical well-being, as well as responding to stress in a healthy way.

Cognitive Ability

Cognition refers to the processing of information about the environment that is received through the senses. It is a psychological process that is engaged in the gathering, organizing, and application of knowledge with an emphasis on rational rather than emotive traits. This comprises gathering information (perception), choosing information (attention), representing information (understanding), retaining information (memory), and employing information to direct behavior. The mental processes of attention, perception, memory, and information processing that enable one to learn, solve problems, and make future plans are together known as cognition (Shree, 2016).

According to Neisser (1976) “Cognition is the activity of knowing: the acquisition, organization, and use of knowledge”. The fundamental abilities or methods a child utilizes to learn are called cognitive skills. Cognitive skills are the mental tools required to absorb and learn what is taught in an academic context, not the academic subjects that are taught in schools. The first thing that matters is how well you process the knowledge you have received, not how much you know. Therefore cognitive ability could be referred to as general intelligence.

Rationale of the study

College going students face a whole lot of problems that need to be tackled every day, for instance, anxiety, depression, peer pressure, dropping out of college, low motivation for academics, disinterest in sports and physical activities etc., besides many changes taking places in many cultures and lifestyles for which many of them are not sufficiently equipped. Life Skills help them deal with increased demands in their daily life. The rapid pace of societal development has caused numerous shifts in how individuals think, and with the introduction of new ideas and cultural norms, new behaviors, expectations, and opportunities have emerged that are substantially different from those of their parents (Amandeep, 2016). Teaching college students' the important life skills can be beneficial because it focuses on their needs as young adults and provides them with the practical, cognitive, emotional, social, and self-management skills they need to make adjustments in their lives (Prajapati et.al. 2017).

For a teacher and the education system as a whole, knowing one's students' cognitive ability is critical. Whatever teaching method the teacher employs, the role of intelligence in the education of the learner must be taken into account. Depending on the student's cognitive ability, the class may be too difficult to understand or too easy that it becomes boring and uninteresting. Understanding an individual's cognitive ability level is important in understanding how they can and will function in an academic setting and helps teachers to understand their capabilities with regard to academics and life in general. Having this information can also help the teachers to know what approaches can be used in the teaching learning process. Since a student's level of cognitive ability and skill for problem solving determines his or her academic achievement, the study becomes a necessity (Kaur, 2020).

The present study is thus an attempt to find out the life skills and cognitive abilities of college students in Mizoram which is situated in north eastern corner of India and to reveal if there are significant differences in the life skills and cognitive abilities based on their stream of study. The study also aims to find out the relationship between life skills and cognitive abilities among college students in Mizoram, India.

Objectives of the study

1. To find out the level of life skills among college students in Mizoram.
2. To find out the level of cognitive abilities among college students in Mizoram.
3. To compare the life skills of college students in Mizoram with reference to their stream of study.
4. To compare the cognitive abilities of college students in Mizoram with reference to their stream of study.
5. To find out the relationship between life skills and cognitive abilities among college students in Mizoram.

Hypotheses

1. There is no significant difference in the life skills of science and commerce college students in Mizoram.
2. There is no significant difference in the life skills of science and arts college students in Mizoram.
3. There is no significant difference in the life skills of commerce and arts college students in Mizoram.
4. There is no significant difference in the cognitive abilities of science and commerce college students in Mizoram.

5. There is no significant difference in the cognitive abilities of science and arts college students in Mizoram.
6. There is no significant difference in the cognitive abilities of commerce and arts college students in Mizoram.
7. There is no significant correlation between life skills and cognitive abilities among college students in Mizoram.

Research methods

The study employed the descriptive survey method as the researchers tried to find out the life skills and cognitive abilities of college students in Mizoram and compare them with reference to their stream of study.

Population and sample

The population of the study consisted of all the college students in Mizoram. Stratified random sampling technique was employed for selection of samples. First of all, Mizoram state was stratified into districts the number of which was 11 and the districts were again stratified based on their locations such as north, south, centre, east and west. One district each namely Kolasib district from the north, Lunglei district from the south, Aizawl district from the centre, Champhai district from the east and Mamit district from the west were randomly selected. From these five districts, ten colleges namely Government Kolasib College, Lunglei Government College, Government J.Buana College, HATIM, Government Hrangbana College, Government Aizawl College, Pachhunga University College, Government J.Thankima College, Government Champhai College, and Government Zawlnuam College were randomly selected. Students of each college were further stratified into semesters and a total of 523 students were randomly selected from the sixth semester. The sample finally consisted of 230 male and 293 female college students.

Tools used

Life Skills Inventory constructed by the investigators (2023) and Raven's Standard Progressive Matrices (2000) developed by John C. Raven were used as toolsfor collecting the data.

Analysis of data

The information gathered from the Life Skills Inventory and Raven's Standard Progressive Matrices was assessed, scored, and organized into tables. The mean and the standard deviation for both life skills and cognitive abilities scores were calculated. To categorize students based on their life skills, those scoring below one standard deviation from the average were labeled as having poor life skills, while those scoring above one standard deviation were classified as possessing good life skills. Students scoring within the range of one standard deviation below to one standard deviation above the mean were considered to have normal life skills. Likewise, to categorize students based on their cognitive abilities, individuals scoring below one standard deviation from the average were labeled as having low cognitive abilities, while those scoring above one standard deviation were classified as having high cognitive abilities. Students scoring within the range of one standard deviation below to one standard deviation above the mean were considered to have average cognitive abilities. The students were also compared in their life skills and cognitive abilities with reference to their stream of study. Correlation between life skills and cognitive abilities was also calculated.

Findings

The findings of the study are presented in accordance with the objectives as follows:

Objective no. 1: To find out the level of life skills among college students in Mizoram.

Table 1: Classification of college students with respect to their Life Skills

Respondents (N=523)	Good	Normal	Poor
Life skills	79(15.11%)	369 (70.55%)	75 (14.34%)

Table no. 1 shows that majority (70.55%) of the students had normal life skill abilities, while 15.11% of students had good life skill abilities and 14.34% of all the students had poor life skill abilities. It can be seen that there were more students having good life skills compared to poor life skill abilities even if the difference is slim.

Objective no. 2: To find out the level of cognitive abilities among college students in Mizoram

Table 2: Classification of college students with respect to their Cognitive Abilities

Respondents (N=523)	High	Average	Low
Cognitive Abilities	34(6.5%)	421 (80.5%)	68 (13%)

Table no. 2 clearly shows that majority (80.5%) of the students had average cognitive abilities, while 6.5% of students had high cognitive abilities and 13% of all the students had low cognitive abilities. It can be seen that there were more students having low cognitive abilities when compared with students having high cognitive abilities.

Objective no. 3: To compare the life skills of college students in Mizoram with reference to their stream of study.

To compare the life skills of science, commerce and arts students, the mean and standard deviation of the scores of these three groups i.e., science & commerce, science & arts, and commerce & arts students were calculated. The mean differences of the three groups were tested by applying 't' test and the details are presented in the following table no 3.

Table 3: Comparison of life skills of college students in Mizoram with reference to their stream of study

Sl. No.	Groups	Number	Mean	SD	MD	t-value	Sig. level
1	Science	168	255.75	21.091	4.499	2.003	.05
	Commerce	171	251.25	20.240			
2	Science	168	255.75	21.091	3.402	1.449	NS
	Arts	184	252.35	22.968			
3	Commerce	171	251.25	20.240	1.096	.478	NS
	Arts	184	252.35	22.968			

Table 3 reveals that the calculated 't' value of 2.003 between science & commerce students is greater than the criterion 't; value at .05 level of confidence, therefore it can be concluded that there was a significant difference between the science & commerce students in their life skills. Hence, the hypothesis no. 1 that 'there is no significant difference in the life skills of science & commerce college students in Mizoram' was rejected. Looking at their mean, one can see that the mean of the science students was greater than the mean of the commerce students indicating that science students have better life skills than the commerce students.
However, Table 3 also shows that the calculated 't' value of 1.449 and .478 between science & arts students and between commerce & arts students are lower than the criterion 't' values at both .01 and .05 level, therefore it can be concluded that there was no significant difference between these two groups. Therefore, the hypothesis no. 2 that states that 'there is no significant difference in the life skills of science & arts college students in Mizoram' and hypothesis no. 3 which states that 'there is no significant difference in the life skills of commerce & arts college students in Mizoram were both accepted.

Objective no. 4: To compare the cognitive abilities of college students in Mizoram with reference to their stream of study.

To compare the cognitive abilities of science, commerce and arts students, the mean and standard deviation of the scores of these three groups i.e., science & commerce, science & arts, and commerce & arts students were calculated. The mean differences of the three groups were tested by applying 't' test and the details are presented in the following table no 4.

Table 4: Comparison of cognitive abilities of college students in Mizoram with reference to their streamof study

Sl. No.	Groups	Number	Mean	SD	MD	t-value	Sig. level
1	Science	168	49.99	5.782	3.415	4.647	.01
	Commerce	171	46.57	7.637			
2	Science	168	49.99	5.782	4.515	5.685	.01
	Arts	184	45.47	8.912			
3	Commerce	171	46.57	7.637	1.100	1.252	NS
	Arts	184	45.47	8.912			

Table 4 shows that two groups i.e., science & commerce and science & arts had a calculated 't' value of 4.647 and 5.685 respectively which are both greater than the criterion 't' value at .01 level of confidence and therefore, it can be concluded that there was a significant difference between the science & commerce students and science & arts students in their cognitive abilities. Therefore, Hypothesis no. 4 and 5 that states that there is no significant difference in the cognitive abilities of science & commerce students and science & arts college students in Mizoram are rejected. When comparison between the means of these two groups were made, it was found that science students had higher mean score than both the commerce students as well as the arts students. Therefore, it can be interpreted that science students possessed higher cognitive abilities than the commerce as well as the arts students.
Conversely, between commerce & arts students the calculated 't' value of 1.252 is lower than the criterion 't' value at both .01 and .05 level which indicates that there was no significant

difference between the commerce & arts students in their cognitive abilities. Therefore, hypothesis no. 6 which states that there is no significant difference in the cognitive abilities of commerce & arts college students in Mizoram was accepted.

Objective no.5: To find out the relationship between life skills and cognitive abilities among college students in Mizoram.

Hypothesis No.7 states that there is no significant correlation between life skills and cognitive abilities among college students in Mizoram. Table 5 shows the correlation between life skills and cognitive abilities among college students in Mizoram.

Table 5: Correlation coefficient between life skills and cognitive abilities among college students in Mizoram (N=523)

Categories	Life Skills	Cognitive Abilities
Life Skills	1.000	.138**
Cognitive Abilities	.138**	1.000

**Significant at 0.01 level

From the above table 5, it is revealed that there is a positive correlation between life skills and cognitive abilities among college students and the relationship is significant at 0.01 level. Hence the null hypothesis no 7 which states that there is no significant correlation between life skills and cognitive abilities among college students in Mizoram is rejected, since a significant positive correlation r = .138 is established between these two variables. The analysis brings to light that although the relationship is slight, there is positive correlation between life skills and cognitive abilities among college students which indicates that the better the life skills, the higher the cognitive ability and vice versa.

Discussions

1. It was found that majority of the college students possessed normal life skill abilities. Buvaneswari & Juliet (2017) and Arif et al., (2020) also found similar results. It is not surprising that majority of the college students possess normal life skills, because by and large majority of people are fairly normal in most things, be it intelligence, attitude, life skills etc.
2. It was also found that majority of the students had average cognitive abilities. Normal distribution is governed by a definite principle which states that the majority of people are at average, a few are very bright and a few are very dull (Gardner, 1999). Therefore, the present finding is not without a reason.
3. The findings revealed that science students had better life skills compared to commerce students. Learning science effortlessly complements students' natural curiosity and helps them to develop important life skills. Perhaps those students taking science becomes more curious than the commerce students to learn about the facts of life, enabling them to develop critical and creative thinking which further develops their life skills.
4. Findings also revealed that science students had better cognitive abilities compared to commerce and arts students. In Mizoram, those students who obtain good academic achievement in their High School Leaving Certificate usually take science. Those students who did not do well could not get admission in the science stream, so they had to take either Arts or Commerce. Therefore, the reason why science students had better cognitive abilities compared to the commerce and arts students could be accounted for this reason.
5. It was also found that there was positive correlation between life skills and cognitive abilities among college students in Mizoram which shows that the better the life skills, the

higher the cognitive ability and vice versa. Schutte et.al. (2001) also found that life skills generally include skills associated with cognitive abilities. This result is expected to a certain degree because under life skills some of the main components include problem solving skills, critical thinking skills, decision making skills etc. which are closely related with cognitive abilities.

Suggestions for improvement of the life skills of college students

1. *Collaboration as a value and skill set*: Young people need new skills for the current and future workplace that will make them ready to collaborate with others, not only in their own classroom or workplace but potentially with others across the planet. Encouraging students to work together on a creative challenge, and allowing them to reflect on the learnings they take from the exercise, will help them better understand what it means to be a part of an increasingly collaborative and connected world.
2. *Build on evaluation and analysis*: New information is being discovered and shared at an ever-growing rate. Predictions show that 50 percent of the facts students are memorizing today will no longer be accurate or complete in the near future. Students need to know not only how to find accurate information, but also how to critically analyze its reliability and usefulness. Building research-based tasks and projects into your teaching will provide a basis to develop this essential 21st century skill set for work.
3. *Teach tolerance and resilience*: To successfully work in a growing collaborative and global community, employers will be looking for candidates who show an ability and openness to communicate with unfamiliar cultures and ideas. To build these skills, students will need exposure to open discussions and experiences that can help them feel comfortable communicating with others. School trips, debating sessions, visits to a workplace or Q&A's with a local employer are all good ways of showing students open mindsets in action.
4. *Help students learn through their strengths*: We are all born with brains that want to learn. We are also born with different strengths, and by growing the strengths we best identify with we can better feed that appetite for learning. One size certainly does not fit all when it comes to developing young minds! It can be challenging to tailor the curriculum for each individual, but by looking ahead you can start to pinpoint elements of your classes which will appeal to particular students' strengths and interests.

Suggestions for improvement of the cognitive ability of college students

1. *Openness to Experience*: Being open to learn new things and experience new mental challenges may be the first step in improving the cognitive ability of students. No man is an island therefore, learning can occur in any situation. An opportunity to learn in a healthy environment must be provided to the students.
2. *Physical Activity*: Physical activity can be quite beneficial for cognition as certain hormones are increased during exercise. This can improve the mental capability of students and can be helpful in their studies. Therefore
3. *Allowing Creativity*: Reading books, writing and engaging in brain-stimulating activities can enhance brain function and connectivity. Placing oneself in the shoes of another and visualizing the books that one read is a mental workout which helps improve cognitive ability.
4. *Social Connections*: Learning new and demanding skills while maintaining a social network are the elements of staying sharp and witty as students grow. Healthy social inter-relationships can help improve the cognitive abilities of college students.

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