Nurturing Strategic Teacher Skills through Customised Learning Communities

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ABSTRACT- Life skills is also addressed as Strategic Skills by the author of this paper attempts to identify the extent to which teacher trainees possess these critical 21st century skills using the Life Skills Adult- Skills for Everyday Living tool developed by Perkins and Mincemoyer (2003). Based on the pre-test performance, the participants were subjected to a double layered customised mentoring plan comprising the Researcher led Life Skills Group Exposure (RLSGE) and the Peer Learning Community (PLC) which was a 4-tier peer driven mechanism. The mentoring plan was executed over a period of one year culminating into a post-test. The post-test results showed an improvement on the components of the Life Skills Adult- Skills for Everyday Living namely; decision making, thinking, communication, goal setting and problem solving. The Researcher and Peer Observation Matrix (Essential Life Skills Development - ELSD) andparticipant self-journal, facilitated construction of a graphic organizer that depicts the skills acquired and nurtured under each component of the tool used. The trainees recommended several changes in the teacher training programme which are presented through a three level ladder diagram starting with 'Begin Here' and ending with 'End of Course'.

KEYWORDS: Communication, Life Skills, Critical Thinking, Problem Solving, Decision Making, Goal Setting

I. INTRODUCTION

The complicated nature of teaching, in both practice and preparation, encourages teacher educators to explore the complexity of novice teachers' experiences and identify the concerns they face in the first few years. Teacher educators must respond to forces such as application of soft skills in order to prepare teachers for today classroom. By understanding novice teachers' concerns, teacher educators may better prepare pre-service teachers to meet and surmount the challenges posed by those concerns in the first few years of teaching. However, for education and training to be successful in raising productivity, there is a need to focus on the internal and external efficiency of education and training programs. Failure to focus on both internal and external efficiency can result in the mismatch in the supply of graduates in the industries. The complicated nature of teaching, in both practice and preparation, encourages teacher educators to explore the complexity of novice teachers' experiences and identify the concerns they face in the first few years. Teacher educators must respond to forces such as application of soft skills in order to prepare teachers for today classroom. By understanding novice teachers' concerns, teacher educators may better prepare pre-service teachers to meet and surmount the challenges posed by those concerns in the first few years of teaching. However, for education and training to be successful in raising productivity, there is a need to focus on the internal and external efficiency of education and training programs. Failure to focus on both internal and external efficiency can result in the mismatch in the supply of graduates in the industriesThe complicated nature of teaching, in both practice and preparation, encourages teacher educators to explore the complexity of novice teachers' experiences and identify the concerns they face in the first few years. Teacher educators must respond to forces such as application of soft skills in order to prepare teachers for today classroom. By understanding novice teachers' concerns, teacher educators may better prepare pre-service teachers to meet and surmount the challenges posed by those concerns in the first few years of teaching. However, for education and training to be successful in raising productivity, there is a need to focus on the internal and external efficiency of education and training programs. Failure to focus on both internal and external efficiency can result in the mismatch in the supply of graduates in the industries

Teaching was once perceived a vocation, a calling, as only the ones with a strong and passionate inner conscience made it to teach through extraordinary dedication, passion and zeal. In short, the practice was synonymous to 1the teacher becoming an artist and the learners a dynamic canvas. But, moving towards the modern society and particularly the preceding two decades of the third millennium, teaching is viewed as a profession with formal structuralization. As a profession, one can marvel its duality both; as an art, as well as a science, akin to the two sides of a coin.

Putting the reality of teacher preparation on a burner pops open various questions. Keeping aside the generic ones and focussing attention to the ones listed below encouraged this study.

• What sort of strategic skills (life-skills) like; problem solving, communication, goal setting, thinking, decision making etc do the trainee teachers acquire and nurture to be successful as educational practitioners?

• How equipped are these teachers to engage Gen Z and Generation Alpha learners?

• What is their awareness about different strategic skills and why such skills are important in professional workspaces?

• Have the teacher preparation programmes understood the changing landscape of learning and the type of strategic skills that need to be developed in teachers keeping 2030 or a little beyond as the horizon?

Berry (2011) re-iterates that 21st century teaching–learning needs teachers who are skilled in the art and science of teaching than ever before. But more importantly, teachers who will assume roles as leaders of change and school improvement through a strong collective vision to ensure that the needs of their students are met. Further, Berry (2011) who created the term "teacherpreneurs," to highlight those teachers who integrate pedagogical talent, offer their expertise and channelize innovative practices to support students says that, they are able to do so because they explore new ways of thinking, create effective communication pathways and progress through collective leadership. Natale, Gaddis, Bassett &McKnight (2013) reports that teacher competence and teacher expertise can be consciously nurtured by leading teachers through a journey of developing professional autonomy.

Ideally teacher preparation is expected to facilitate teacher trainees to create their own professional identity by recognizing and understanding the multifarious roles they as future teachers will take on in various learning spaces. Muršak, Javrh, & Kalin (2011) argue that an important part of professional identity is the image of an ideal teacher. Though the concept of ideal teacher according to Gjedia & Gardinier (2018) is abstract, yet this abstraction can be handled through a phased mentoring system which have positive effect of how teacher trainees develop professional identity.

The go-do-it culture grips when the trainee teachers are assisted to develop strategic skills (life skills) such as; flexibility in thinking, critical thinking, teacher leadership, articulating ideas, communication skills, goal setting, problem solving, decision making etc which helps them to develop a holistic personality that can function and deal with the demands and challenges of everyday life as an educator. Hence, the need to mentor teacher trainees by exposing them to scaffolding systems as devised in the present study. These supports would help them to better understand themselves, to recognise the hard spots they encounter in the process of teacher formation, work collaboratively within their peer customised communities and nurture their own professional identity.

To develop strategic skills (life skills) through customised learning communities, a pre-test was administered to assess the hard spots that hinder their life skills performance and progress followed by the implementation of the Researcher led Life Skills Group Exposure (RLSGE) in conjunction with the 4-tier Peer Support Mechanism (PSM). This was followed by a post-test after a span of one year.

Strategic Teacher Skills
In the context of the present study, the term strategic skills refers to significant life skills teachers must possess so as to keep in tune with the changing 21st century educational landscape. This was reported by Ananiadou & Claro (2009) who say that the 21st century is really in need of strong educational systems that will prepare young minds with new skills and favourable attitudes aligned to the changing society and the emerging knowledge based economy.

The World Health Organisation (1999) through its extensive studies had identified a few cardinal life skills that are seen to operate across cultures globally. They are; decision making,creative thinking, critical thinking, problem solving, communication,person skills, self-awareness, empathy, handling emotions and stress.

There are life skills frameworks that measure life skills of an audience in the age group 4 to 19 years. However, there is a lack of assessment frameworks that measure life skills possessed by teachers.

The Cambridge Framework for Life Competencies (2018) designed to measure 42 key life competencies of individuals as young as four years to working adults could not be used since the framework was in the process of development and validation. Hence, the researcher adopted the Life Skills Adult- Skills for Everyday Living developed by Perkins and Mincemoyer (2003) in collaboration with the United States Department of Agriculture's National Institute of Food and Agriculture through a cooperative agreement with the University of Minnesota.

Why are these strategic teacher skills essential?

The World Health Organisation (1994) opines that life skills education contours on how people learn from their own experiences and from the people around them. Razia (2016) opines that teacher preparation should encompass life skills to impart diversity of skills among the prospective teachers to build an open and flexible mind. Such skills can be learnt through interaction processing and structuring of experiences (Aparna & Raakhee, 2011; Prajapati, Sharma, & Sharma, 2017). The National Education Policy (2020), Government of India, too stresses on life skills such as; communication, cooperation, teamwork, and resilience.

Teaching and Learning is facilitated through effective communication and its absence indicates that no learning occurs (Moore, 2006; Majid, Jelas, Azman & Rahman, 2010) Therefore, teachers with good communication skills will naturally create a more engaging and successful teaching and learning ambience for the students. According to Guerrero & Floyd (2006),a teacher with great communication skills has the potential to motivate and influence others to taste success. Observations by Jurik, Groschner & Siedel (2014) highlight the importance of communication between teachers and students. Thus, communication becomes an underlying vehicle for meaningful student learning and motivation.

(Norlizaet al., 2010) and according to Kenneth (2007), without communication, the teaching andlearning process will not take place. Therefore, teachers with good communication skills will create a more successful teaching and learning ambience for the students. On the other hand, someone with great communication skills has the potential to influence others and effective communication strategies will lead to success (Guerrero & Floyd, 2006). (Norlizaet al., 2010) and according to Kenneth (2007), without communication, the teaching andlearning process will not take place. Therefore, teachers with good communication skills will create a more successful teaching and learning ambience for the students. On the other hand, someone with great communication skills has the potential to influence others and effective communication strategies will lead to success (Guerrero & Floyd, 2006).

Doménech-Betore&Gómez-Artiga (2014) who examined the relationship between students' and teachers' thinking styles found an intrinsic closeness between the two. Learning is found to become infectious and active when discussions are initiated through thought and reason (Ronnlund et. al, 2018). Chopra (2020) reports that without critical thinking, critical pedagogy and distributed leadership based on democratic values, students may not be able to achieve an equitable education which can greatly hamper socioeconomic mobility that was intended through education.

Based on the of literature review (Norlizaet al., 2010) and according to Kenneth (2007), without communication, the teaching and learning process will not take place. Therefore, teachers with good communication skills will create a more successful teaching and learning ambience for the students. On the other hand, someone with great communication skills has the potential to influence others and effective communication strategies will lead to success (Guerrero & Floyd, 2006).

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Metallidou (2009) says that Problem solving requires an appropriate mental representation of the problem and the subsequent application of certain methods or strategies in order to move from an initial current state to a desired goal state. While Son & Lee (2020) report that scant attention is given to an area as important as problem solving thereby incapacitating teachers not to comprehend the relationship between their conceptions of problem solving and problem-solving performances. How can teachers who don't understand the value and worth of problem solving serve as educators?

Teachers may directly not set goals, yet, they convey attitudes and provide directives on how goals should be set and be interpreted (Marsh et. al, 2014). Just like any other element of school culture, the attitudes teachers convey heavily influences how the school system thinks (Lai &Schildkamp, 2013). This brings us to understand that, goal-setting teachers serve as directors of learning: break down larger/complex goals

into skill areas, matching goals to skills students are missing on, and even outlining steps necessary to get to a particular goal. Goal setting according to Usher & Kober (2012) becomes relevant when students get motivated, their competence is used giving them control or autonomy, cultivation of interest, and even altering the perceptions of their own abilities.

A cognitive oriented decision making would lead to more effective practice (Claire, 2019). Teacher preparation in the modern reality is expected to immerse teachers in developing professional knowledge and skills that will make teachers better decision-makers (Borko, Roberts, & Shavelson, 2008). Evidence based decision making as well as reflective decision making have their own significance and are to be situated against the context; be it student related, pedagogy related or any other.

This section leads us to understand that a teacher who holds a balance with respect to different strategic life skills can contribute to a remarkable professional life as an educator. Hence, the need to develop these critical skills during teacher formation. The researcher in the present study has customised a peer learning community for the set of students who were found in need of support to develop these skills.

Research Context, Research Methodology and Workflow in the Investigation

Context

Ten teacher trainees pursuing their B.Ed programme during the academic year 2017-2018 became a part of this experiment by virtue of the researcher observing the disinterest expressed by themin pursuing the programme, inability to cope up with the demands of the rigour that the course demanded, difficulty in transforming content into more creative and engaging forms, mismatch between disciplines as some students were entering social sciences from the sciences, difficultyin articulating ideas effectively, inability to take decisions or exercise choices, conflicts with peers, conflicts with authority, apprehensions about their performance, unable to effectively present an idea or inability to discuss or analyse etc.

This prompted the researcher to administer the 'Life Skills Adult – Skills for Everyday Living' on all the 10 teacher trainees. This instrument developed by Perkins & Mincemoyer (2003) measures behaviours and attitudes related to outcomes common in CYFAR (children, youth and family programmes) such as decision making, communication, goal setting and critical thinking. Permission to use the tool was obtained from the developers.

II. METHODOLOGY

The case study approach was adopted in the investigation with a single hypothesis namely; there is no significant difference in the mean pre-test and post-test scores of teacher trainees on the Life Skills Adult- – Skills for everyday living. The subjects comprised 10 teacher trainees pursuing their Bachelor's Degree in Education, affiliated to the Goa University during the academic year 2017- 2018. A paired score was generated for every participant and hence, it was ensured that the participants attended both the pre and post-test. Each teacher was assigned a code as S1, S2 ...S10.The research objectives were;

1.   To compare the teacher trainees life skills patterns on the Life Skills Adult – Skills for everyday living before and after the intervention
2.   To compute the statistical significance between means of pre and post-test data sets of the paired sample
3.   To compare the teacher trainees life skills patterns on each dimension of the Life Skills Adult – Skills for everyday living before and after the intervention
4.   To document situational skill-sets acquired and developed by the participants
5.   To interpret feed-forward sourced from teacher trainees in relation to the B.Ed. course.

Tools

1.   Life Skills Adult- Skills for Everyday Living

The tool comprises 26 items placed under **five** categories/components as follows;

Sl. No	Dimensions/Categories	Items

01	When I have a decision to make	1,2,3,4,5
02	When I think	6,7,8,9,10
03	When I communicate with others	11,12,13,14,15,16
04	When setting a goal	17,18,19,20
05	When solving a problem	21,22,23,24,25,26

To facilitate expression, the developers have created five response categories ranging from Never, Rarely, Sometimes, Often and Always with the corresponding scale values from 1 to 5. Scores for each student on each category/component were determined along with the composite score. The individual scores along with the composite scores enabled the researcher to identify the hard spots in relation to certain competency areas they experienced problems with.

2.   Semi-structured Interview

Semi-structured interview schedule was developed by the researcher to understand the on-going progress processes. The semi-structured interview schedule made the researcher-participant encounter less formal and less threatening so as to enable the 10 teacher trainees to be themselves.

3.   Researcher and Peer Observation Matrix (Essential Life Skills Development ELSD) – is a four dimensionalobservation matrix with decision making and reasoning, interpersonal relationships (communication), goal setting and problem solving as the attributes measured along a continuum of skill development from low, average to high.

4.   Participant self-journal –a digital journal to record their feelings, observations and learnings. Besides their own experiences, they could also write good practices they learnt from their peers.

Workflow in the Investigation

Step 1: Pre-test

The Life Skills Adult – Skills for Everyday Living was administered on the 10 teacher trainees which yielded a variety of hard spots. To address these hard spots a detailed mentoring plan was formulated.

Step 2: Mentoring Plan

A two layered mentoring plan depicted in Figure 1 was put onto action with each layer operating almost parallel to each other. The first layer being the Researcher led Life Skills Group Exposure (RLSGE) controlled by the researcher and the second being the Peer Learning Community (PLC) was largely controlled by the peer group with a few tasks overlapping with layer 1.

This study draws inspiration from social mentoring theories which describe mentoring in social environments. There were apprehensions about the PLC getting more socialised into the existing culture that was experienced by them and causing them to reproduce or negatively alter prevailing practices leading to a taken for granted attitude (Wang & Odell, 2007; Yuan, 2016) thereby maybe losing their potential as agents of renewed change (Lane, Lacefield-Parachini, & Isken, 2003).

The researcher who deviates from the conservative and traditionalist approach to social mentoring strongly believes that mentees empowerment can be fostered resulting in building of a creative and dynamic learning community that sustains and maintains itself for self-growth.

Such a perspective was actualised through collaboration with the mentor (Dominguez & Hager, 2013) who in the present context is the researcher and ably supported by the mentees (10 teacher trainees) to shape the PLC through active reciprocal relationships (Edwards-Groves, Brennan Kemmis, Hardy & Ponte 2010).Figure 1 explains the structure of the mentoring plan.

Figure 1. Mentoring Plan
Source: The Author

Researcher led Life Skills Group Exposure (RLSGE): The observed difficulties (evidence based) gathered through the Life Skills Adult- Skills for Everyday Living were tabulated in a matrix by the researcher. Based on these difficulties, the investigator designed a framework in the absence of a clearly defined framework for life skills mentoring of teachers. The framework presented in Figure 2 embeds a variety of strategies to foster positive growth.
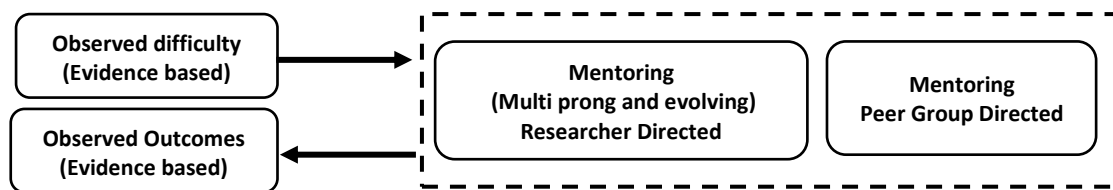
Figure 2. Researcher led Life Skills Group Exposure (RLSGE)
Source: The Author

The mentoring intervention was conducted in-house and sometimes in virtual space. The investigator mentored the teacher trainees over a period of **one** year. A mentoring procedure was outlined which ensured that the planned intervention was executed systematically. Field notes generated during informal encounters or administration of semi-structured interviews helped the researcher to customise the intervention.

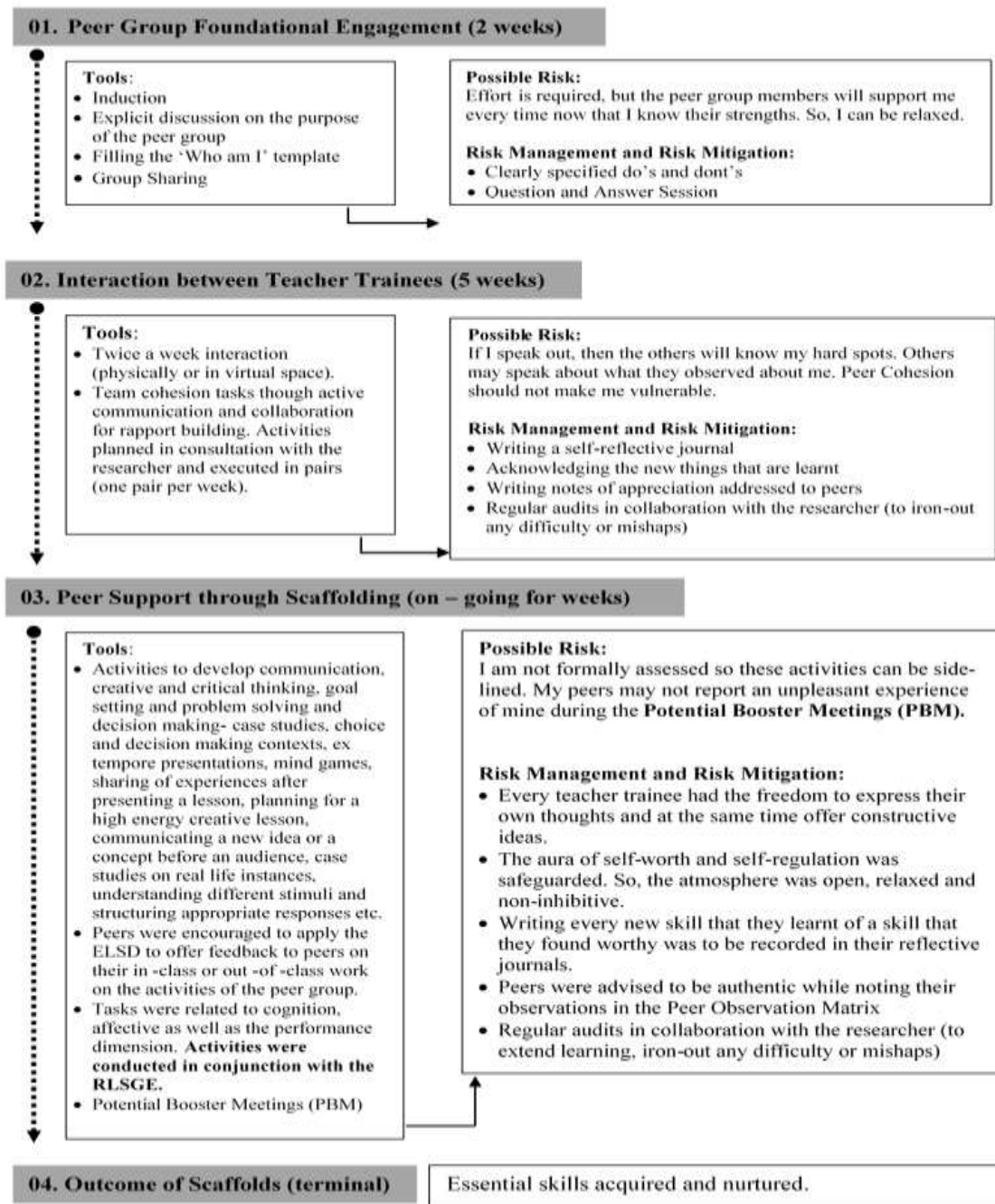Tasks such as the following were designed for the teacher trainees;

- **Keyyour Communication**: Enhancing self-communication and communication with others (with significant persons or otherwise)
- **Exposure to making choices and decisions** when there is uncertainty, roadblocks, risky consequences, multiple options/alternatives etc.
- **Evidence collection strategies** to make decisions
- **Problem solving** and more importantly spotting a problem and then how to address it. Analysing a situation and avoiding pre-mature conclusions
- To **look at the BIG picture** and appreciate every little success, and failure as learning rather than retreat. How to stay calm and handle the problem **not** the person
- Becoming **future/forward looking** rather than wallowing in the past.
- **Reflecting** on success stories of people and other motivating material.
- Strategies to develop **soft and hard skills**
- **Teachers as leaders** workshops
- Discussions on **interrelationships** between domain knowledge and how associations can be made.
- **Confidence** and **courage** building

Peer Learning Community (PLC)

A 4 tier peer support system was developed which functioned parallel to the Researcher led Life Skills Group Exposure (RLSGE). A teacher professional skills endeavour besides focussing on honing of pedagogical skills must also address the nurturing of operational- functional competencies which are a part of the competence profile of a teacher.

Nurturing Strategic Teacher Skills through Customised Learning Communities

The present study encouraged an open ***peer – peer*** interaction which in no way was paired or matched, as the 10 trainees through our preliminary meetings were convinced that they wanted to be successful teachers. The desire to develop professionalism, trust in the researcher and reciprocal confidence among the teacher trainees encouraged them to be more naturalistic, more open and less defensive. It was found that learning through peer-group mentoring helps learners to construct knowledge through interactions on the basis of their experiences and understanding (Geeraerts, Tynjala, Heikkinen, & Markanen, 2014).

The objective of the peer support mechanism was to diffuse skill sets, knowledge, experiences and leverage strengths of each of the 10 teacher trainees in supporting and building each other's capacity as equals through collaboration, cohesion and communication. Some of the activities were exclusive to PLC, while some were in conjunction with the RLSGE. Figure 3 below explains the road map of the entire process of organizing the peer support system. The peer support system so designed focusses on the process rather on the product and embeds tools, possible risks and risk management and risk mitigation.

01. Peer Group Foundational Engagement (2 weeks)

Tools:
- Induction
- Explicit discussion on the purpose of the peer group
- Filling the 'Who am I' template
- Group Sharing

Possible Risk:
Effort is required, but the peer group members will support me every time now that I know their strengths. So, I can be relaxed.

Risk Management and Risk Mitigation:
- Clearly specified do's and dont's
- Question and Answer Session

02. Interaction between Teacher Trainees (5 weeks)

Tools:
- Twice a week interaction (physically or in virtual space).
- Team cohesion tasks though active communication and collaboration for rapport building. Activities planned in consultation with the researcher and executed in pairs (one pair per week).

Possible Risk:
If I speak out, then the others will know my hard spots. Others may speak about what they observed about me. Peer Cohesion should not make me vulnerable.

Risk Management and Risk Mitigation:
- Writing a self-reflective journal
- Acknowledging the new things that are learnt
- Writing notes of appreciation addressed to peers
- Regular audits in collaboration with the researcher (to iron-out any difficulty or mishaps)

03. Peer Support through Scaffolding (on – going for weeks)

Tools:
- Activities to develop communication, creative and critical thinking, goal setting and problem solving and decision making- case studies, choice and decision making contexts, ex tempore presentations, mind games, sharing of experiences after presenting a lesson, planning for a high energy creative lesson, communicating a new idea or a concept before an audience, case studies on real life instances, understanding different stimuli and structuring appropriate responses etc.
- Peers were encouraged to apply the ELSD to offer feedback to peers on their in -class or out -of -class work on the activities of the peer group.
- Tasks were related to cognition, affective as well as the performance dimension. **Activities were conducted in conjunction with the RLSGE.**
- Potential Booster Meetings (PBM)

Possible Risk:
I am not formally assessed so these activities can be side-lined. My peers may not report an unpleasant experience of mine during the **Potential Booster Meetings (PBM).**

Risk Management and Risk Mitigation:
- Every teacher trainee had the freedom to express their own thoughts and at the same time offer constructive ideas.
- The aura of self-worth and self-regulation was safeguarded. So, the atmosphere was open, relaxed and non-inhibitive.
- Writing every new skill that they learnt of a skill that they found worthy was to be recorded in their reflective journals.
- Peers were advised to be authentic while noting their observations in the Peer Observation Matrix
- Regular audits in collaboration with the researcher (to extend learning, iron-out any difficulty or mishaps)

04. Outcome of Scaffolds (terminal)

Essential skills acquired and nurtured.

Figure 3. Peer Learning Community (PLC) Framework
**Source**: The Author

<u>Step 3</u>: **Post-test**

Administration of the Life Skills Adult- – Skills for everyday living was administered on the 10 teacher trainees after they answered their first year university exams and scores for each student on each category/component were determined along with the composite score.

III. DATA ANALYSIS

Objective No. 1

To compare the teacher trainees life skills patterns on the Life Skills Adult – Skills for everyday living before and after the intervention
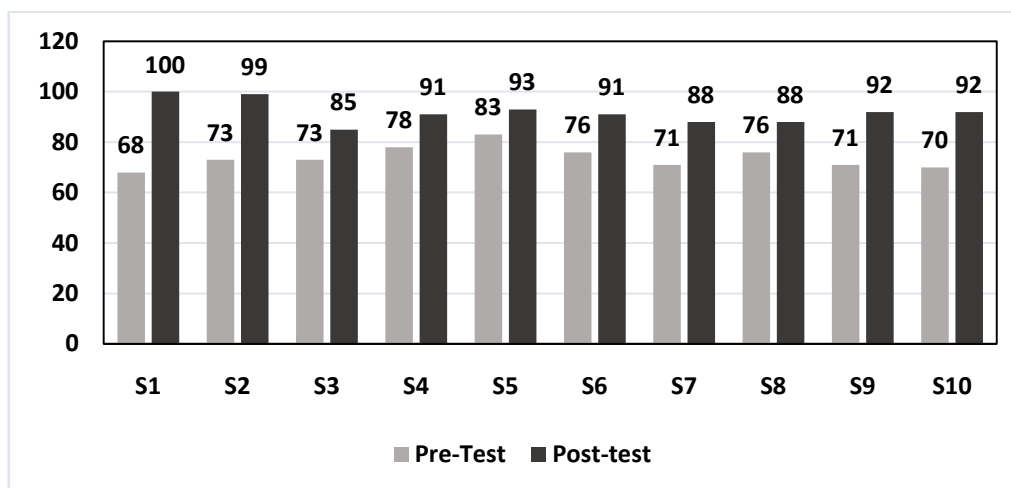
Figure 4. Teacher trainees' life skills patterns on the Life Skills AdultSkills for everyday living before and after the intervention

Figure 4 shows that the overall performance of the 10 teacher trainees on the different components of the Life Skills Adult – Skills for everyday living (pre-test) is lower than their performance on the post-test. This explains the inability of the 10 students to embrace the teacher education programme effectively. A marked improvement in the life skill scores can be observed in the data labels of teachers bearing Codes S1, S2, S7, S9 and S10 after being exposed to the intervention programme. The remaining teachers too show an improvement in the performance over their life skills.

This indicates that the intervention executed over a period of almost 1 year enabled the teacher trainees to hone strategic skills in relation to; decision making, articulation of thoughts, confidence to communicate with others, to set goals and problem solve. Based on evidences presented in Figure 4, it can be deduced that the intervention programme was effective since it enabled them to develop new insights and new skills expected of them as educational practitioners.

Objective No. 2

To compute the statistical significance between means of pre and post-test data sets of the paired sample

Hypothesis 1

There is no significant difference in the mean pre-test and post-test scores of teacher trainees on the Life Skills Adult- – Skills for everyday living

Table 1

Significance of difference between the mean pre-test and post-test Scores of Teacher Trainees on the Life Skills Adult – Skills for everyday living

Test	Mean	SD	N	df	t-value	Level of significance
Pre-test	73.9	19.6	10			
				9	7.99***	0.001
Post-test	91.9	21.9	10			

***P < .001; statisticallyhighly significant

The obtained t-value of 7.99 (paired sample) is statistically highly significant at the 0.001 level indicating that there is a significant improvement in the teacher trainees life skills scores on the post-test vis-à-vis the pre-test. The result in Table 1 supports the observations presented in Figure 4.

Objective No. 3

To compare the teacher trainees' life skills pattern on eachdimension of the Life Skills Adult – Skills for everyday living test before and after the intervention

Category 1: When I have a decision to make
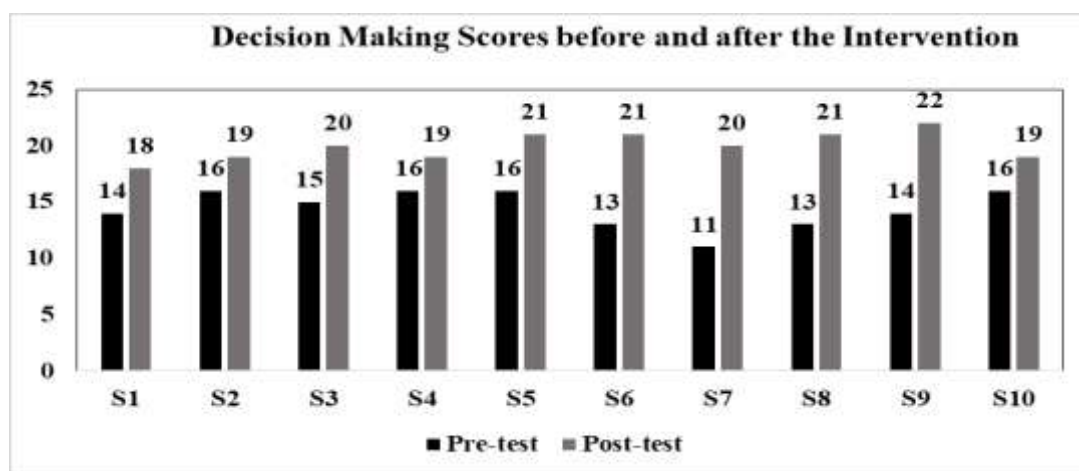
Figure 5. When I have a Decision to Make

The performance of all the 10 teacher trainees as reflected in Figure 5 on the component ***When I have to make a decision*** is higher on the post-test which indicates that they are better equipped to seek information, process it and that would help them understand the problem,consider the risks of a choice before making a decision, think about all the information they have about the different choices and even recalling and associating past choices when making new decisions.

Category 2: When I think
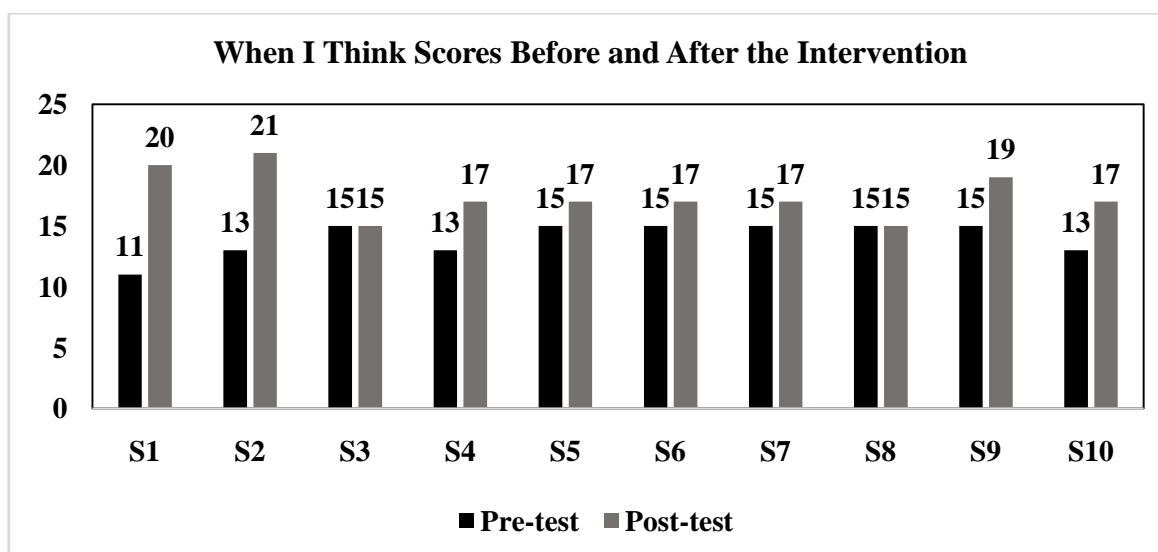
Figure 6. When I Think

The performance of 8 out of the 10 teacher trainees on the component **When I Think** as reflected in Figure 6 is higher on the post-test which indicates that the teacher trainees have developed the ability to express thoughts about a problem, compare ideas when thinking about a topic, consider more than one source of information before making a decision, keeping the mind open to different ideas when planning to make a decision and even choosing innovative ways to handle problems.

Category 3: When I Communicate with Others
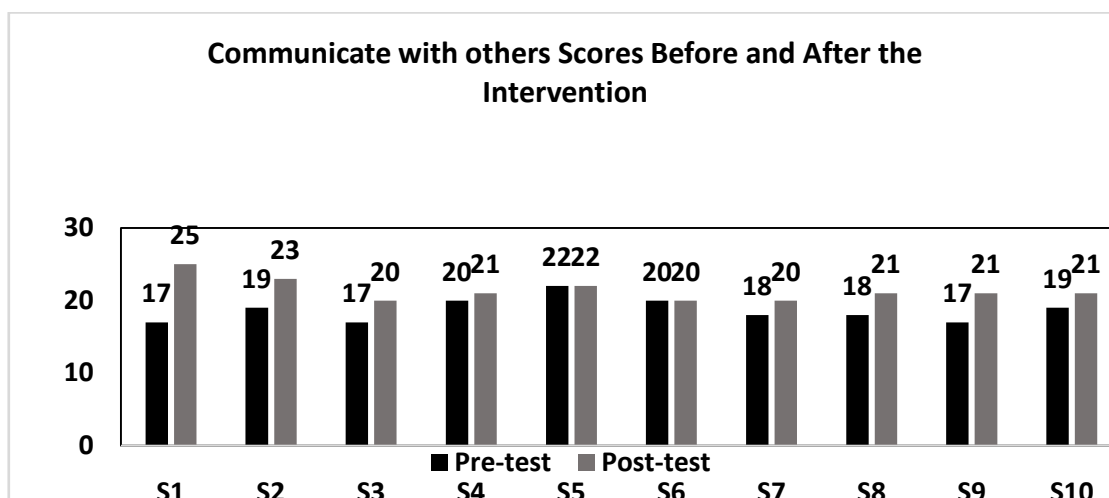
Figure 7. When I Communicate with Others

Eight out of the 10 teachers on the component **When I Communicate with Others** show a higher performance on the post-test while two show the same level of performance. This can be attributed to their ability to maintain an eye contact during conversation, organize thoughts clearly, make efforts to understand the point of view of the other, recognize diversity in presenting the same idea differently, decode the message clearly before responding and maintaining the tone and type of relationship when interacting with a peer, teacher or any other person.
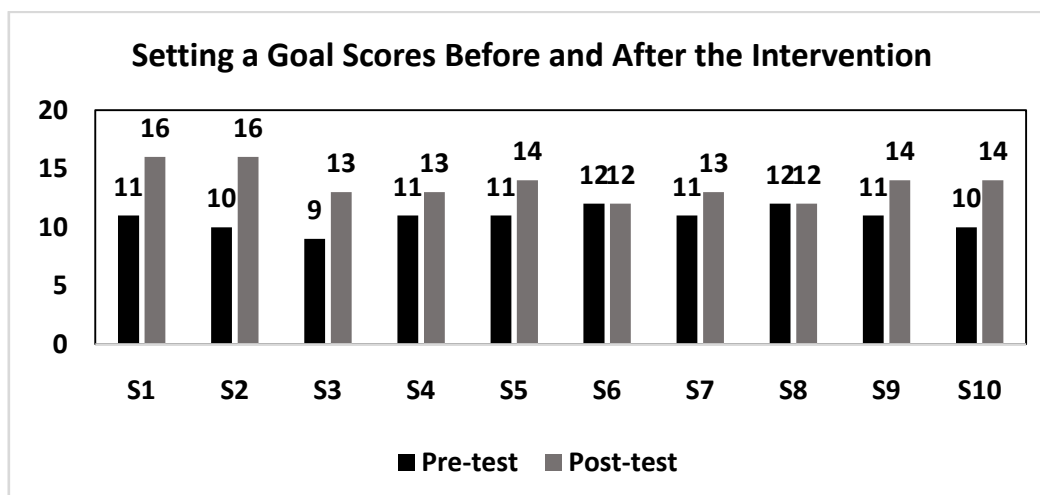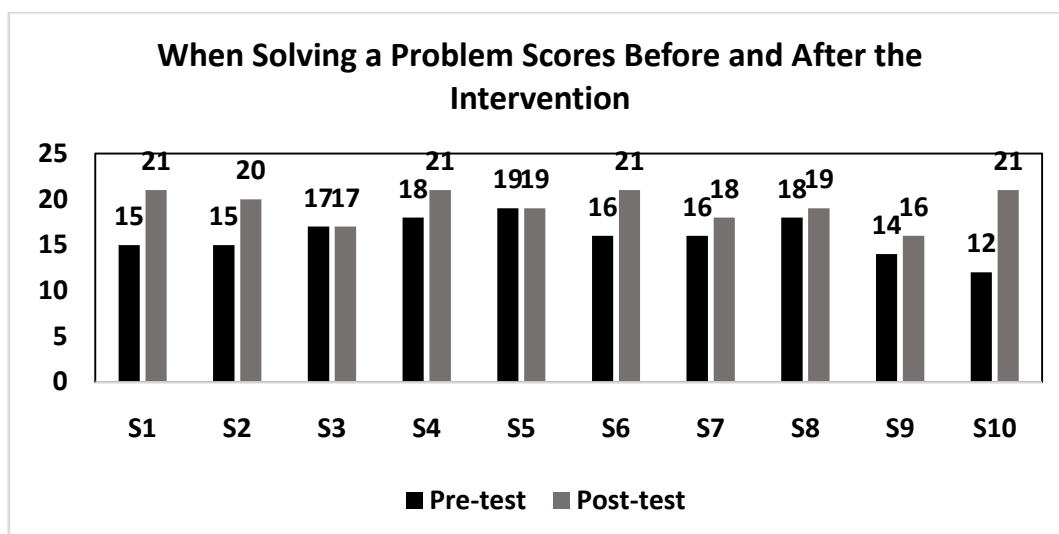
Category 4: When Setting a Goal

Figure 8. When Setting a Goal

Figure 8 show that excluding two teacher trainees i.e. S6 and S8, the rest have shown a significant improvement in their ability to set goals. The intervention taught them to prioritise goals, design a framework to achieve those goals, to self-reflect and check progress as well as being open to both feedback and feedforward.

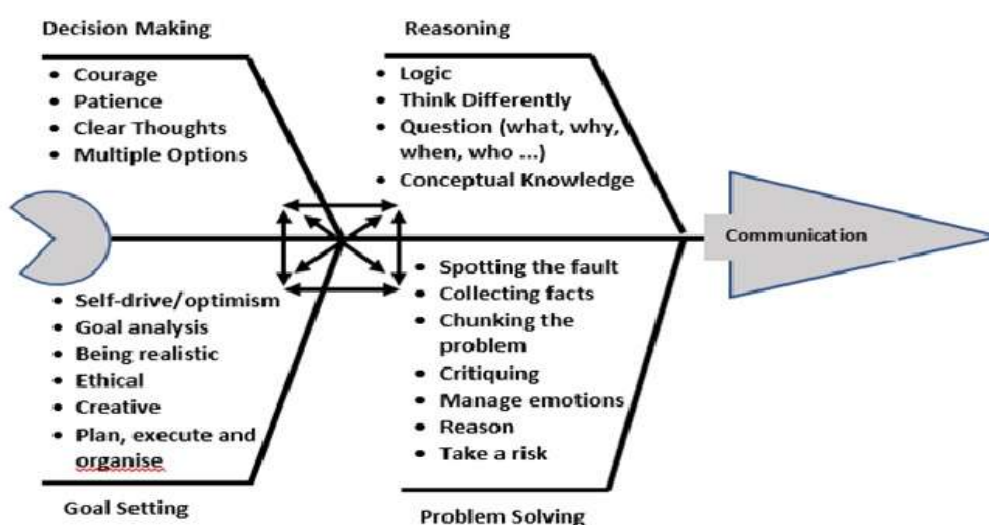**Category 5**: When Solving a Problem

When Solving a Problem Scores Before and After the Intervention

Student	Pre-test	Post-test
S1	15	21
S2	15	20
S3	17	17
S4	18	21
S5	19	19
S6	16	21
S7	16	18
S8	18	19
S9	14	16
S10	12	21

■ Pre-test ■ Post-test

Figure 9. When Solving a Problem

Figure 9 indicates that there is improvement in the teacher trainees' ability to problem solve. This can be attributed to the intervention plan that exposed them to apply the problem solving approach to analyse the problem threadbare, to look for similarities in problems handled or solved in the past and the present one, identify tentative solutions and weigh them against each other thereby arriving at a workable solution. The workable solution may undergo edits during its execution.

Objective No. 4

To document essential/strategic skill-sets acquired and developed by the participants in relation to the dimensions of the Life Skills Adult-Skills for everyday living.

The data collected through the Researcher and Peer Observation Matrix (Essential Life Skills Development - ELSD) andparticipant self-journal in relation to essential/strategic self-skills developed by the trainees are presented in the form of a graphic organiser. The graphic organiser describes the skills acquired and nurtured by the 10 teacher trainees.

Decision Making
- Courage
- Patience
- Clear Thoughts
- Multiple Options

Reasoning
- Logic
- Think Differently
- Question (what, why, when, who ...)
- Conceptual Knowledge

Communication

- Self-drive/optimism
- Goal analysis
- Being realistic
- Ethical
- Creative
- Plan, execute and organise

- Spotting the fault
- Collecting facts
- Chunking the problem
- Critiquing
- Manage emotions
- Reason
- Take a risk

Goal Setting

Problem Solving

**Figure 10.** Acquired and Nurtured Self-propelling Skills

Source: The Author

Figure 7 shows four clusters of skills captioned under decision making, reasoning, goal setting and problem solving embedded in a fish-bone outline. The skills listed under each cluster are those reported through careful examination of the Researcher and Peer Observation Matrix (Essential Life Skills Development - ELSD). A careful observation of these clusters reveals an interconnectedness between all these skills which in turn facilitate effective communication. An imbalance of these essential skills can hamper communication and the ability to make reasoned choices, reason, and problem solve and even set goals.

The structured intervention has helped the teacher trainees to acquire and hone these transferable skills during the academic year. Acquisition of these skills was never an easy task. Persistence, watching and comprehending the environment, determination and the courage to excel, learning through trial and error, learning through peer support and under the guidance of the researcher has helped the trainees to widen their perspective and vision of being a 21st century learner and a 21st century teacher.

Objective No. 5

To interpret feed-forward sourced from teacher trainees in relation to the B.Ed. course.
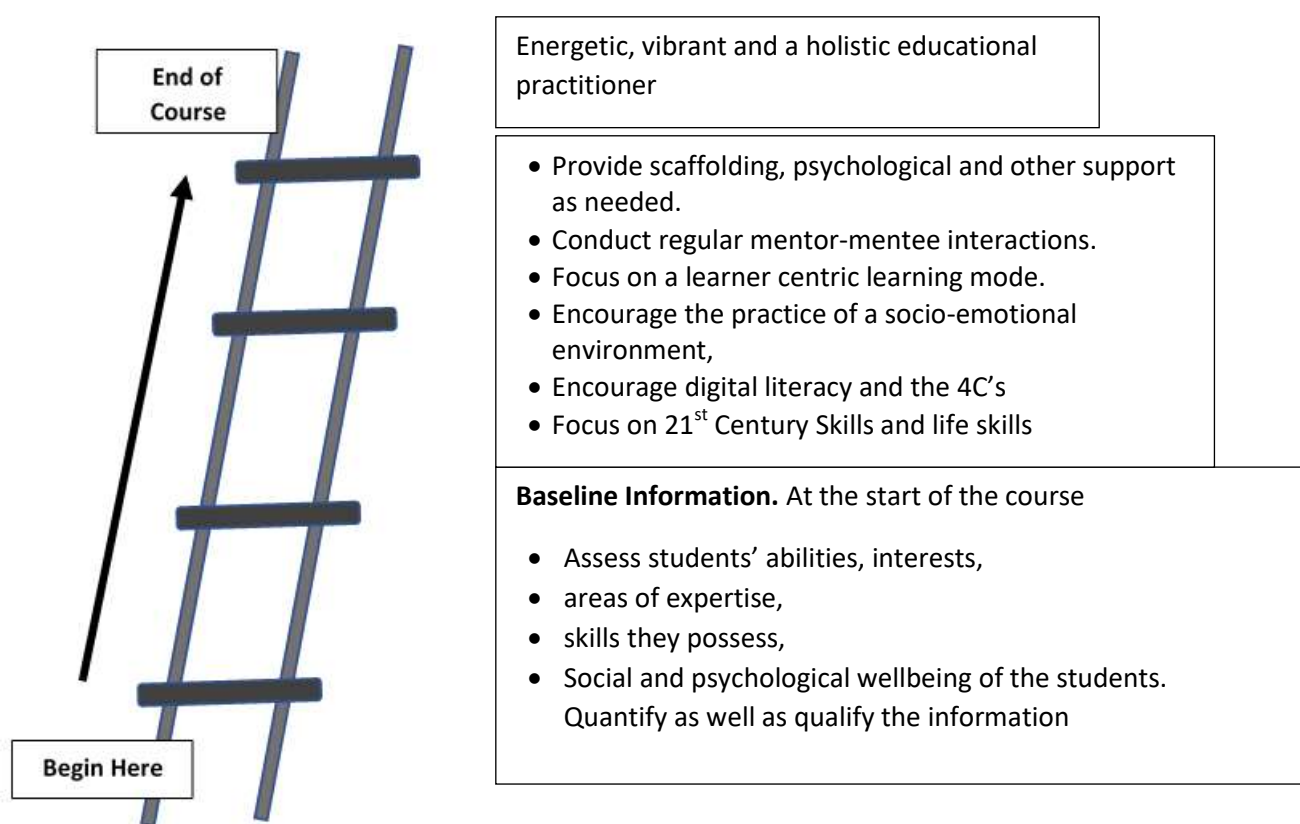
Figure 11. Recommendations from Students to better Teacher Training

Source: The Author

IV. CONCLUSION

The myriad of tools available to measure life skills is noteworthy. But, tools to measure life skills particularly related to teaching were not found, other than, the one used in the present investigation. Consulting literature and frameworks/tools related to life skills enabled the researcher to construct an intervention programme which benefitted the teacher trainees. This study throws opens doors to ascertaining life skills competencies of teacher trainees before they embark on their professional journey as teachers lest they cause more damage than good.

Implications

This study is timely and significant because of the following:

• It analysed the life skills teacher trainees possessed thereby facilitating the implementation and execution of a well laid out intervention programme that opened gates to transit them from **what they are** to **what they ought to be** in the 21st Century as educational practitioners.

• It provides empirical data (pre-test and post-test) for deliberation. Teachers are transformers and nation builders as they educe blossoming of the student. If, teacher trainees during the teacher training programme can be identified and nurtured in attitude and skill building, society can be certain of education that occurs in and out of the classrooms.

• The Intervention had a positive influence on the trainees' way of thinking, approach to decision making, articulation of thoughts and ways to communicate, to problem solve etc. This means that life skills can be taught to adult students too.

• Learning that occurred during Capacity development can be used by these teacher trainees in their own practice as full-fledged teachers.

• Institutions offering teacher education programmes can innovate their curricula by including life skills education components at the F.Y.B.Ed level instead of the S.Y. which is more of a theoretical exposure rather than growth oriented

• Suggestions offered by the teacher trainees themselves in relation to life skills education indicates gaps in theory and actual practice which need to be addressed. These suggestions are a feedforward.

• A need to design frameworks not only to measure the types and quality of life skills that teacher trainees possess but also intervention frameworks.

1. REFERENCES
2. Ananiadou, K., & Claro, M. (2009). *21st Century Skills and Competences for New Millennium Learners in OECD Countries.* OECD. Paris: OECD Publishing. https://doi.org/10.1787/218525261154
3. Aparna, N., & Raakhee, A. (2011). Life Skills Education for Adolescents: Its Relevance and Importance. *GESJ: Education Science and Psychology, 2*(19), 3 - 7.
4. Berry, B. (2011). Teacherpreneurs: A More Powerful Vision for the Teaching Profession. *Phi Delta Kappan, 92*(6), 28-33. https://doi.org/10.1177%2F003172171109200606
5. Borko, H., Roberts, S., & Shavelson, R. J. (2008). Teachers' Decision Making: from Alan J. Bishop to Today. In P. C. Clarkson, & N. C. Presmeg, *Critical issues in mathematics education: Major contributions of Alan Bishop* (pp. 37-67). USA: Springer. https://doi.org/10.1007/978-0-387-09673-5_4
6. Edwards-Groves., Brennen Kemmis, R., Hardy, I., & Ponte, P. (2010). Relational architectures: Recovering solidarity and agency as living practices in education. *Pedagogy, Culture & Society, 18*(1), 43-54.
7. Choudhary, M., & Rani, R. (2019). life skills education; concern for educationists for wholistic development of adolescents. *PARIPEX - Indian Journal of Research, 8*(1), 31 - 32.
8. Doménech-Betore, F., & Gómez-Artiga, A. (2014). The relationship among students' and teachers' thinking styles, psychological needs and motivation. *Learning and Individual Differences,, 29*, 89 - 97. https://doi.org/10.1016/j.lindif.2013.10.002.
9. Dominguez, N., & Hager, M. (2013). Mentoring frameworks: synthesis and critique. *International Journal of Mentoring and Coaching in Education, 2*(3), 171-188. https://doi.org/10.1108/IJMCE-03-2013-0014
10. Geeraerts, K., Tynjala, P., Heikkinen, H. L., & Markanen, l. (2014). Peer-group mentoring as a tool for teacher development. *European Journal of Teacher Education, 38*(3), 1-20. https://doi.org/10.1080/02619768.2014.983068
11. Gjedia, R., & Gardinier, M. P. (2018). Mentoring and teachers' professional development in Albania. *European Journal of Education, 53*(2), 1 - 16. https://doi.org/10.1111/ejed.12258
12. Guerrero, L. K., & Floyd, K. (2006). *Nonverbal Communication in Close Relationships.* New York: Routledge. https://doi.org/10.4324/9781410617064
13. Jurik, V., Groschner, A., & Seidel, T. (2014). Predicting Students' Cognitive Learning Activity and Intrinsic Learning Motivation: How Powerful Are Teacher Statements, Student Profiles, and Gender? *Learning and Individual differences, 32*, 132 - 139. https://doi.org/10.1016/j.lindif.2014.01.005
14. Kalin, J., Mursak, J., & Jevrh, P. (2011). *Professional Development of Teachers.* Slovenia: Ljubljana: Znanstvena založba Filozofske.

15. Knight, B. (2018). *The Cambridge Framework for Life Competencies*. Retrieved from World of Better Learning: https://www.cambridge.org/elt/blog/2018/04/05/cambridge-framework-life-competencies/

16. Lai, M. K., & SchildKamp, K. (2013). Data-based decision making: An Overview. In K. Schildkamp, M. K. Lai, & L. Earl, *Data-based decision making in education: Challenges and opportunities* (pp. 9-21). Dordrecht: Springer.

17. Lane, S., Lacefield-Parachini, N., & Isken, J. (2003). Developing Novice Teachers as Change Agents: Student Teacher Placements "against the Grain". *Teacher Education Quartely, 30*(2), 55-68.

18. Majid, N. A., Jelas, Z. M., Azman, N., & Rahman, S. (2010). Communication Skills and Work Motivation Amongst Expert Teachers. *Procedia - Social and Behavioural Sciences, 7*(C), 765 - 767. https://doi.org/10.1016/j.sbspro.2010.10.075

19. Marsh, J. A., Farrell, C. C., & Bertrand, M. (2014). Trickle-Down Accountability: How Middle School Teachers Engage Students in Data Use. *Educational Policy, 30*(2), 243-280. https://doi.org/10.1177%2F0895904814531653

20. Metallidou, P. (2009). Pre-service and in-service teachers' metacognitive knowledge about problem-solving strategies. *Teaching and Teacher Education, 25*(1), 76-82. https://doi.org/10.1016/j.tate.2008.07.002

21. MHRD. (2020). *National Education Policy.* New Delhi: MHRD, Government of India. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

22. Moore, K. D. (2006). *Classroom Teaching Skills.* Mc-Graw Hill Education-Europe.

23. Natale, C. F., Gaddis, L., Bassett, K., & McKnight, K. (2016). *Teacher Career Advancement Initiatives: Lessons Learned from Eight Case Studies.* New York: Pearson Publishing. Retrieved from https://www.nnstoy.org/wp-content/uploads/2016/03/RINVN829_Teacher-Career-Adv-Initiatives_Rpt_WEB_f.pdf

24. Prajapati, R. K., Sharma, B., & Sharma, D. (2017). Significance of Life Skills Education. *Contemporary Issues in Education Research, 10*(1), 1 - 6.

25. Priti, C. (2020). Teachers' Participation in School Decision-Making Processes and Practices: The Case of an Indian Government Secondary School. *Italian Journal of Sociology of Education, 12*(1), 41 - 55. https://doi.org/10.14658/pupj-ijse-2020-1-4

26. Razia, B. (2016). Life Skills Education - A Missing Component in Teacher Education Programmes in India. *Indian Journal of Applied Research, 6*(5), 518 - 520. doi:10.36106/IJAR

27. Rönnlund, M., Ledman, K., Nylund, M., & Rosvall, P.-Å. (2019). Life skills for 'real life': How critical thinking is contextualised across vocational programmes. *Educational Research, 61*(3), 302-318. https://doi.org/10.1080/00131881.2019.1633942

28. Son, J.-W., & Lee, M. (2020). Exploring the Relationship Between Preservice Teachers' Conceptions of Problem Solving and Their Problem-Solving Performances. *International Journal of Scienec and Mathematics Education, 19*(4), 129-150. https://doi.org/10.1007/s10763-019-10045-w

29. Usher, A., & Kober, N. (2012). *Can Goals Motivate Students?* Washington DC: Center on Education Policy.

30. Wang, J., & Odell, S. J. (2007). An alternative conception of mentor–novice relationships: Learning to teach in reform-minded ways as a context. *Teaching and Teacher Education, 23*(4), 473-489. https://doi.org/10.1016/j.tate.2006.12.010

31. WHO. (1994). *Life Skills Education for Children and Adolescents in Schools - Introduction and Guidelines to Facilitate the Development and Implementation of Life Skills Programmes.* Geneva: WHO. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/63552/WHO_MNH_PSF_93.7A_Rev.2.pdf?sequence=1&isAllowed=y

32. WHO. (1999). *Partners in Life Skills Education - Conclusions from a United Nations Inter-Agency Meeting.* World Health Organisation. Geneva: WHO. Retrieved from https://www.who.int/mental_health/media/en/30.pdf

33. Yuan, E. R. (2016). The dark side of mentoring on pre-service language teachers' identity formation. *Teaching and Teacher Education, 55*, 188-197. https://doi.org/10.1016/j.tate.2016.01.012