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The Role of The Teacher Education in build Critical and Problem Solving Skill

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Abstract

Everyone experiences problems from time to time. Some of our problems are big and complicated, while others may be more easily solved. There is no shortage of challenges and issues that can arise during the teaching. Whether in a class or on a teaching site, experiencing difficulties with the tasks at hand or with other teacher, at school presents ongoing challenges on a daily basis. Whether these problems are large or small, they need to be dealt with constructively and fairly. Having the necessary skills to identify solutions of problems is one of the skills that teacher look for in student. Problem solving and critical thinking refers to the ability to use knowledge, facts, and data to effectively solve problems. This doesn't mean you need to have an immediate answer, it means you have to be able to think on your feet, assess problems and find solutions. The ability to develop a well thought out solution within a reasonable time frame, however, it is a skill that teaching value greatly.

Although skill in problem solving is critical to success in school and the community, as well as to promoting student self-determination, problem solving remains a neglected curriculum area for students with developmental disabilities. Using the self-determined learning model, students with mental retardation or developmental disabilities were taught problem-solving skills to achieve self-set goal. the instruction was provided in general education content classes. Target behaviors included increasing appropriate touching, increasing contributions in class discussion, and increasing direction following. The implications of these findings in respect to promoting self determination and inclusive practice are discussed.

Key Word: *Teacher Education, Critical Skill and Problem Solving Skill*

Introduction:

An educational institution performs a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions who play an important role to bring about this transformation are teachers. As stated by NCTE (1998) in Quality Concerns in Teacher Education, - The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage. This shows that it is imperative to invest in the preparation of teachers, so that the future of a nation is secure. The importance of competent teachers to the nation's school system can't be overemphasized in any way. The National Curriculum Framework 2005 places demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education. Those new to the teaching profession often adopt the lecture format because it is both teacher-centered and comes with a strong academic tradition. Unfortunately, it is very difficult to increase a student's critical thinking skills with the lecture format. Topics are discussed sequentially rather than critically, and students tend to memorize the material

since the lecture method facilitates the delivery of large amounts of information. The student is placed in a passive rather than an active role since the teacher talking, the questioning, and, thus, most of the thinking.

Active learning can make the course more enjoyable for both teachers and students, and, most importantly, it can cause students to think critically. For this to happen, educators must give up the belief that students cannot learn the subject at hand unless the teacher covers it. While it is useful for students to gain some exposure to the material through pre-class readings and overview lectures, students really do not understand it until they actively do something with it and reflect on the meaning of what they are doing.

There have been many definitions of critical thinking over the years. No posited that critical thinking is deciding rationally what to or what not to believe. it suggested that critical thinking is best understood as the ability of thinkers to take charge of their own thinking. declared critical evaluation as the process of arriving at a judgment about the value or impact of a text by examining its quality.

The taxonomy offered by Benjamin Bloom some 50 years ago offers a straightforward way to classify instructional activities as

they advance in difficulty (Bloom, 1956). The lower levels require less thinking skills while the higher levels require more. The theory of critical thinking began primarily with the works of Bloom (1956), who identified six levels within the cognitive domain, each of which related to the different level of cognitive ability. Knowledge focused on remembering and reciting information. Comprehension focused on relating and organizing previously learned information. Application focused on applying information according to a rule or principle in a specific situation. Analysis was defined as critical thinking focused on parts and their functionality in the whole. Synthesis was defined as critical thinking focused on putting parts together to form a new and original whole. Evaluation was defined as critical thinking focused upon valuing and making judgment based upon information. In the context of this paper, critical thinking is deemed.

Teacher Education:

It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation. The National Council for Teacher Education has defined teacher education as A programme of education, research and

training of persons to teach from pre-primary to higher education level. Teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein. According to Goods Dictionary of Education Teacher education means, all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively. Teacher education encompasses teaching skills, sound pedagogical theory and professional skills.

Teacher Education = Teaching Skills + Pedagogical theory + Professional skills.

Critical Skill And Problem Solving

Skill:

The cognitive scientist's point of view, the mental activities that are typically called critical thinking are actually a subset of three types of thinking: reasoning, making judgments and decisions, and problem solving. Critical thinking is a subset of these because we think in these ways all time, but only sometimes in a critical way. Deciding to read this article, for example, is

not critical thinking. But carefully weighing the evidence it presents in order to decide whether or not to believe what it says is. Critical reasoning, decision making, and problem solving which, for brevity's sake, they were referred to as critical thinking have three key features: effectiveness, novelty, and self-direction. Critical thinking is effective in that it avoids common pitfalls, such as seeing only one side of an issue, discounting new evidence that disconfirms your ideas, reasoning from passion rather than logic, failing to support statements with evidence, and so on. Critical thinking is novel in that you don't simply remember a solution or a situation that is similar enough to guide you. For example, solving a complex but familiar physics problem by applying a multi-step algorithm isn't critical thinking because you are really drawing on memory to solve the problem.

Aim:

Thus, the aim of this paper mainly focus on teacher Education to know about meaning of critical and problem solving skills and their role in profession of teacher where they normally use and it's important in teacher education.

- become less dependent on various methods and textbooks
- create knowledge

- evaluate, challenge and change the structures of society

Why is critical and problem solving skill important at teacher Education?

In general, students who develop critical and problem solving skills are more able to

- achieve better marks
- interpreting: understanding the significance of data and to clarify its meaning
- analysing: breaking information down and recombining it in different ways
- reasoning: creating an argument through logical steps
- evaluating: judging the worth, credibility or strength of accounts.

Displaying critical And Problem solving Skill in reading and writing:**Reading:**

- to provide evidence to back up or challenge a point of view
- to evaluate the validity and importance of a text/ position
- to develop reflective thought and a tolerance for ambiguity

Writing:

- a literary text or artwork

- a research article
- an argument or interpretation of an issue, text or artwork.

Need, Scope and Objectives of Teacher Education in Critical and Problem Solving Skill:

“ The quality of a nation depends upon the quality of its citizens. The quality of its citizens depends not exclusively, but in critical measure upon the quality of their education, the quality of their education depends more than upon any single factor, upon the quality of their teacher.”

“Every community should have a talented and dedicated teacher in every classroom. We have enormous opportunity for ensuring teacher quality well into the 21st century if we recruit promising people into teaching and give them the highest quality preparation and training”.

- the length of academic preparation,
- the level and quality of subject matter knowledge,
- the repertoire of pedagogical skills that teachers possess to meet the needs of diverse learning situations,
- the degree of commitment to the profession,
- sensitivity to contemporary issues and problems
- the level of motivation.

- Care for children, and who love to be with them;
- Understand children within social, cultural and political contexts;
- View learning as a search for meaning out of personal experience;
- Understand the way learning occurs, possible ways of creating conducive conditions for learning, differences among students in respect of the kind, pace and styles of learning.
- View knowledge generation as a continuously evolving process of reflective learning.
- Be receptive and constantly learning.
- View learning as a search for meaning out of personal experience, and knowledge generation as a continuously evolving process of reflective learning.
- View knowledge not as an external reality embedded in textbooks, but as constructed in the shared context of teaching-learning and personal experience.
- Own responsibility towards society, and work to build a better world.
- Appreciate the potential of productive work and hands-on experience as a pedagogic medium

both inside and outside the classroom.

- Analyze the curricular framework, policy implications and texts.
- Have a sound knowledge base and basic proficiency in language.
- The objectives of teacher education would therefore be to,
- Provide opportunities to observe and engage with children, communicate with and relate to children
- Provide opportunities for self-learning, reflection, assimilation and articulation of new ideas; developing capacities for self directed learning and the ability to think, be self-critical and to work in groups.
- Provide opportunities for understanding self and others developing the ability for self analysis, self-evaluation, adaptability, flexibility, creativity and innovation.
- Provide opportunities to enhance understanding, knowledge and examine disciplinary knowledge and social realities, relate subject matter with the social and develop critical skill.

- Provide opportunities to develop professional skills in pedagogy, observation, documentation, analysis, drama, craft, story-telling and reflective inquiry.

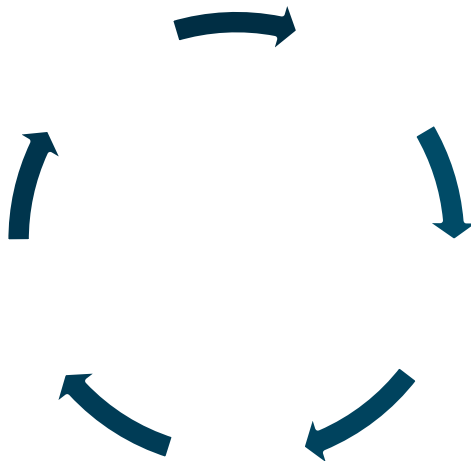
Importance of Critical and Problem Solving Skills in teacher education :-

Respondents believe that a number of skills are extremely important as areas of focus for schools.

- Problem solving
- Ability to collaborate
- Persistence
- Creativity
- Academic knowledge
- for the Leadership skills
- Fostering shared responsibility
- Encouraging peers to challenge one another
- Fostering critical thinking
- Deepening understanding of specific topic
- Improving learning outcomes
- Broadening understanding of a variety of topics

Frame Work of developing build Critical and Problem Solving Skill :-

In this paper identifies a 5-step framework that can be implemented in virtually any teaching or training setting to effectively move learners toward critical thinking.



Step 1: Determine learning objectives.

- Define behaviors students should exhibit
- Target behaviors in higher order thinking

Step 2: Teach through questioning.

- Develop appropriate questions
- Employ questioning techniques
- Encourage interactive discussion

Step 3: Practice before you assess.

- Choose activities that promote active learning
- Utilize all components of active learning

Step 4: Review, refine, and improve.

- Monitor class activities
- Collect information from students

Step 5: Provide feedback and assessment of learning.

- Provide feedback to students

- Create opportunities for self-assessment
- Utilize feedback to improve instruction

Conclusions:

In the field of lifelong learning, the policy of widening participation plays a vital role in determining change in adult education. Adults are returning to various types and levels of further and teacher education more equipped by life experiences than ever before, but their prior educational experiences either at school or undergraduate level may not have equipped them to use these experiences. Indeed, it may also be suggested that neither T.E is necessarily as equipped to support them in their educational journey as perhaps we once thought.

It is important that teachers give thoughtful consideration to current instructional methods and to the personal beliefs that drive them prior to contemplating this particular approach to teaching. Implementing critical and problem solving through this framework clearly requires a commitment to active, student-centered learning which, at least initially, may be somewhat unfamiliar and uncomfortable to both students and teachers. Further that the learner will gain skills because of the dispositions which they have and that these

dispositions are identified through the attitudes and values, which the learner has at the outset of the intervention as well as those that they gain during the process.

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