A REVIEW OF CREATIVE COMPETENCIES AMONG PRIMARY EDUCATION TEACHERS

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Abstract:
Primary education teachers are expected to create a safe and nurturing learning environment that fosters creativity, critical thinking, and collaboration. The government of Uzbekistan has made significant efforts to support primary education teachers, including providing professional development opportunities and increasing teacher salaries. Elementary school teachers in Uzbekistan play a critical role in educating the country's youngest learners. However, elementary school teachers in Uzbekistan continue to play a critical role in shaping the future of the country by providing a strong foundation of education for its youngest learners. Creative competency is among the most important trait of primary school teachers. This article review some of the key components of creative competency, such as idea generation, problem-solving, design thinking, innovation, and collaboration.

Keywords: public education, creative teaching competence, creative teaching, Uzbekistan.

I.   Introduction

Public education in Uzbekistan provides a strong foundation for the country's future by preparing students for further education, employment, and active participation in society. Public education in Uzbekistan is provided by the government and is free for all children from ages 6 to 18. The country has made significant progress in expanding access to education and improving its quality since its independence in 1991.

The education system in Uzbekistan is divided into four levels: pre-school education, primary education (grades 1-4), secondary education (grades 5-9), and upper secondary education (grades 10-11). Primary and secondary education are compulsory, and students are required to attend school until the age of 16.

The curriculum for primary education in Uzbekistan includes subjects such as Uzbek language and literature, mathematics, natural sciences, social sciences, physical education, and foreign languages. In addition to traditional classroom instruction, students participate in extracurricular activities, such as music, dance, and sports.

Primary education teachers in Uzbekistan are expected to create a safe and nurturing learning environment that fosters creativity, critical thinking, and collaboration. They must also be able to adapt their teaching methods to meet the diverse learning needs of their students.

The government of Uzbekistan has made significant efforts to support primary education teachers, including providing professional development opportunities and increasing teacher salaries. However,

challenges remain, including a shortage of qualified teachers in rural areas, limited resources, and a lack of access to technology.

Secondary education in Uzbekistan is more specialized, and students are able to choose from a range of academic and vocational tracks. The curriculum includes subjects such as physics, chemistry, biology, history, geography, and foreign languages, as well as vocational subjects such as agriculture, industry, and services.

Uzbekistan is working to improve the quality of elementary education by providing professional development opportunities for teachers, updating the curriculum to be more student-centered and inclusive, and investing in technology to enhance learning.

Elementary school teachers in Uzbekistan play a critical role in educating the country's youngest learners. Like other countries, the requirements and qualifications for becoming an elementary school teacher in Uzbekistan vary depending on the level of education and the type of school.

In Uzbekistan, elementary school education typically covers grades 1-4, and teachers are responsible for teaching a range of subjects, including language, mathematics, science, social studies, and physical education. Teachers are expected to create a safe and nurturing learning environment that fosters creativity, critical thinking, and collaboration.

To become an elementary school teacher in Uzbekistan, individuals must have a degree in education from a recognized university or pedagogical institute. In addition, they must pass a national certification exam and complete a probationary period of teaching under the supervision of an experienced teacher.

The education system in Uzbekistan faces several challenges, including a shortage of qualified teachers, inadequate facilities, and limited access to technology. However, the government has made education a priority and has committed significant resources to expanding access and improving quality.

Despite these efforts, challenges remain, such as a shortage of qualified teachers in rural areas, limited resources, and a lack of access to technology. However, elementary school teachers in Uzbekistan continue to play a critical role in shaping the future of the country by providing a strong foundation of education for its youngest learners.

II.   Creative compentency as a key factor

Creative competency is increasingly recognized as an essential skill for success in today's rapidly changing and complex world, particularly in fields such as technology, entrepreneurship, and the arts [1].

Creative competency refers to the ability to generate innovative and original ideas, as well as to develop and implement them effectively. It involves a combination of skills, knowledge, and attitudes that enable individuals to approach problems and challenges with imagination, flexibility, and resourcefulness. Some of the key components of creative competency include **idea generation, problem-solving, design thinking, innovation and collaboration.**

The ability to come up with new and diverse ideas, often through brainstorming, experimentation, and exploration is referred to as idea generation. Problem-solving is the ability to identify and define

problems, and to develop effective and innovative solutions to address them. Design thinking involves the use of a structured approach to creative problem-solving that emphasizes empathy, iteration, and experimentation. Innovation is the ability to apply creative thinking to develop new products, processes, or services that provide value to customers or stakeholders. Collaboration is the work with others, often in interdisciplinary or cross-functional teams, to develop and implement innovative solutions [2].

Idea generation is the process of coming up with new and innovative ideas to solve problems or create opportunities. It involves using imagination, creativity, and critical thinking to explore different possibilities and generate a range of ideas. There are some techniques that can be used to stimulate idea generation: brainstorming, mind mapping, SCAMPER, random words, creative prompt.

Brainstorming is a popular method of idea generation, where a group of people come together and generate ideas without any criticism or judgment. The aim is to generate as many ideas as possible in a short amount of time. Mind mapping is a visual technique where ideas are mapped out in a diagrammatic format, showing how they are connected and related to one another.

SCAMPER refers to an acronym that stands for Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, and Rearrange. It's a technique used to generate new ideas by exploring different ways to modify existing ideas [3]. Random word association involves selecting a random word and using it as a stimulus to generate new ideas. For example, if the word is "orange," you might generate ideas related to color, taste, texture, or health benefits. Creative prompt technique that involves using a prompt, question or challenge to stimulate idea generation. For example, "What if we could eliminate traffic jams in our city?" or "How might we create a more sustainable food system?". These techniques are just a few examples of the many ways to generate new ideas. The key is to find the techniques that work best for the team, and to approach idea generation with an open and curious mindset.

Problem-solving as a creative competency is the process of identifying, analyzing, and resolving problems or challenges. Effective problem-solving requires a combination of analytical and creative thinking, as well as the ability to work collaboratively with others to develop and implement solutions. It is an essential skill in many industries and areas of life, from business and technology to healthcare and education. It involves using critical thinking, creativity, and decision-making skills to find effective solutions to complex or difficult problems. There are some steps that can be used to approach problem-solving: identify the problem, i.e. clearly defining the problem, understanding its causes, and gathering relevant information and data. Then comes problem analysis that involves breaking down the problem into smaller components, identifying patterns and trends, and evaluating possible solutions. Generating potential solutions followed by problem analysis involves brainstorming and exploring different options for solving the problem, using techniques like mind mapping, SCAMPER, and creative prompts. Later solution evaluation comes into play, which involves assessing the strengths and weaknesses of each potential solution, considering the potential impact, and selecting the most promising option [4]. Finally, implementation of the solution involves putting the chosen solution into action, monitoring progress, and making any necessary adjustments and process reflection

which reviews the problem-solving process, identifying what worked well and what could be improved, and using this feedback to improve future problem-solving efforts.

Another creative competency is **design thinking**, which is a problem-solving methodology that emphasizes empathy, creativity, and iteration. Design thinking is a powerful methodology that can be used to solve a wide range of problems, from product design to organizational change. It is an iterative process that encourages experimentation, creativity, and collaboration, and can lead to innovative and effective solutions. It involves approaching problems from the perspective of the end user, and using a structured process to develop and test potential solutions. Here are the typical stages of the design thinking process: Empathize: This stage involves understanding the needs, goals, and challenges of the end user or customer. It involves conducting research, interviewing users, and developing a deep understanding of their experiences and perspectives. Define: This stage involves synthesizing the information gathered during the empathy stage to define the core problem or challenge that needs to be solved. It involves framing the problem in a way that is meaningful and actionable. Ideate: This stage involves generating a range of potential solutions to the problem, using techniques like brainstorming, mind mapping, and SCAMPER. The goal is to generate as many ideas as possible without judgment or criticism. Prototype: This stage involves creating a physical or digital prototype of the solution, using materials like paper, cardboard, or software. The goal is to create a low-fidelity version of the solution that can be quickly tested and refined. Test: This stage involves testing the prototype with users, gathering feedback, and refining the solution based on this feedback. The goal is to create a solution that is effective, efficient, and user-friendly [5].

Yet another important creative competency is **innovation** - a process of developing and implementing new or improved products, services, processes, or ideas that provide value to customers or stakeholders. It involves creativity, risk-taking, and a willingness to challenge conventional thinking. Innovation is essential for organizations and industries to remain competitive and adapt to changing environments. It requires a culture of creativity and experimentation, as well as a willingness to take risks and learn from failure. Some characteristics of innovation include novelty, value, creativity, risk-taking and collaboration [6]. Innovation involves introducing something new or different, whether it's a product, service, or idea. This can involve creating something that has never existed before, or improving upon an existing product or process. Innovation is about creating value for customers or stakeholders. This can involve solving a problem, meeting a need, or providing a new or improved experience. Innovation requires creativity and imagination to generate new ideas and concepts. This can involve combining existing ideas in new ways, exploring new technologies or materials, or developing new approaches to solving problems. Innovation often involves taking risks and stepping outside of one's comfort zone. This can involve trying new things, experimenting with new ideas, or challenging established ways of doing things. Innovation is often a collaborative process that involves working with others, whether it's within an organization or across industries. This can involve bringing together diverse perspectives, skills, and experiences to generate new ideas and approaches [7].
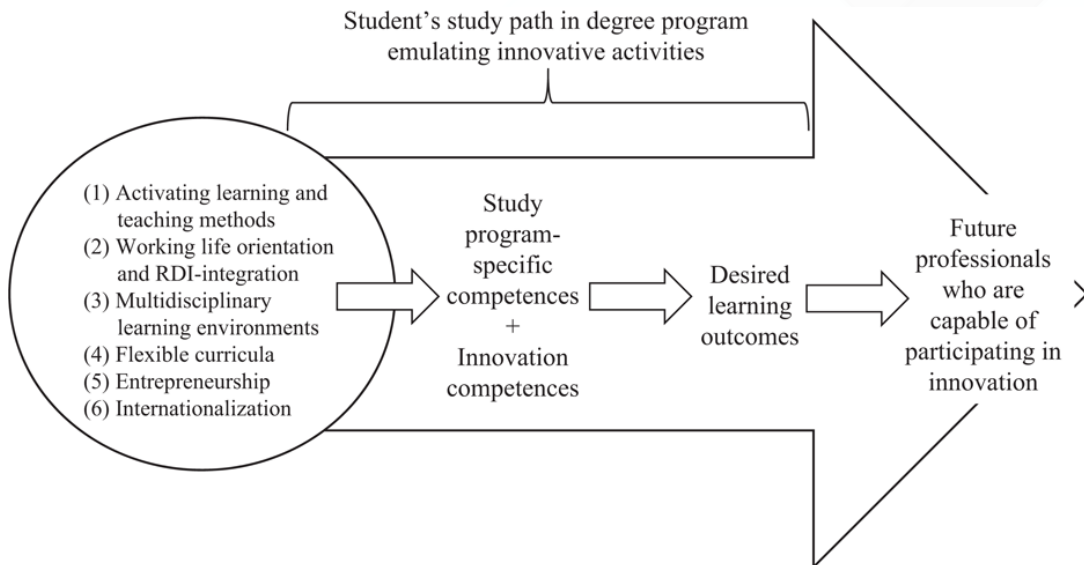
Figure 1. Student innovation competencies [8]

Last but not least, **collaboration** is a creative competency that involves working with others to generate ideas, solve problems, and create new products or services. It involves combining different perspectives, skills, and experiences to develop innovative solutions that meet the needs of customers or stakeholders. Collaboration as a creative competency is essential in many industries and areas of life, from business and technology to healthcare and education. It requires a willingness to work with others, build strong relationships, and combine different skills and perspectives to achieve common goals.

Some characteristics of collaboration as a creative competency include communication, teamwork, flexibility and conflict resolution. Collaboration requires effective communication skills to share ideas, give and receive feedback, and build consensus around a shared goal. This involves active listening, clear and concise language, and the ability to articulate one's ideas. Teamwork involves working as part of a team to achieve a common goal. This requires the ability to build trust, respect, and empathy with others, and to work collaboratively to find solutions to complex problems. Creativity involves combining different perspectives, skills, and experiences to generate new and innovative ideas. This can involve brainstorming, prototyping, and experimenting with different approaches to problem-solving. Flexibility requires flexibility and adaptability to changing circumstances and differing viewpoints. This involves being open-minded, receptive to feedback, and willing to adjust one's approach as needed. Conflict resolution involves disagreements or conflicts, and requires the ability to resolve these issues in a constructive and respectful manner. This involves active listening, empathy, and a willingness to find common ground and work towards a shared solution [8].

Recently, **empathy** has been seen as a key factor for creativity, as it allows individuals to better understand and connect with the needs, desires, and challenges of others. Empathy involves putting oneself in another person's shoes, seeing things from their perspective, and developing a deeper understanding of their experiences and feelings. Empathy is an essential skill for creativity, as it allows

individuals to better understand the needs and desires of others, generate new ideas, build connections, and test and refine their solutions. By developing empathy, individuals can become more effective problem-solvers and innovative thinkers. There are some ways in which empathy can foster creativity: identification of unmet needs, idea generation, connection built-up, testing and refining. Empathy allows individuals to identify unmet needs or gaps in the market, by understanding the challenges and frustrations of others. This can lead to the development of new products, services, or solutions that better meet the needs of customers or stakeholders [9]. Empathy can help generate new ideas by providing insights into the experiences and perspectives of others. By understanding their needs and desires, individuals can develop new approaches to problem-solving or come up with innovative solutions to complex challenges. Empathy can help individuals build strong connections with others, by showing that they understand and care about their needs and experiences. This can lead to collaboration, shared learning, and the development of new ideas and solutions. Empathy can also help individuals test and refine their ideas, by gathering feedback and insights from others. By understanding the perspectives of different stakeholders, individuals can identify areas for improvement and refine their ideas to better meet the needs of their target audience. Empathy is an essential skill for creativity, as it allows individuals to better understand the needs and desires of others, generate new ideas, build connections, and test and refine their solutions. By developing empathy, individuals can become more effective problem-solvers and innovative thinkers [10].

Empathy is a crucial competency for elementary school teachers. Empathy involves the ability to understand and share the feelings and perspectives of others, and it is essential for building positive relationships with students, parents, and colleagues. There are key actions to foster empathy: observation, feeling, understanding, and asking. Moreover, here are some ways that elementary school teachers can cultivate their empathy skills:

Listen actively: Active listening involves paying close attention to what others are saying and making an effort to understand their perspectives. Teachers can practice active listening by maintaining eye contact, asking clarifying questions, and summarizing what the other person has said.

Practice perspective-taking: Perspective-taking involves imagining what it would be like to be in someone else's shoes. Teachers can practice perspective-taking by considering the experiences and feelings of their students, and making an effort to understand their perspectives and needs [11].

Demonstrate care and concern: Demonstrating care and concern involves showing genuine interest in the well-being of others. Teachers can demonstrate care and concern by checking in with their students regularly, offering emotional support when needed, and making an effort to build positive relationships with their students and their families.

Provide opportunities for student voice and choice: Providing opportunities for student voice and choice can help teachers to better understand their students' perspectives and needs. This can include giving students a say in the topics they study, allowing them to choose how they demonstrate their learning, and soliciting their feedback on classroom policies and procedures.

Use positive reinforcement: Using positive reinforcement involves recognizing and rewarding positive behaviors and achievements. Teachers can use positive reinforcement to build students' self-esteem and show that they care about their well-being [12].

By cultivating their empathy skills, elementary school teachers can build positive relationships with their students, create a supportive and inclusive learning environment, and help their students to succeed both academically and socially.

III. The requirements, challenges, and opportunities

The requirements for becoming an elementary school teacher vary by country. Here are the general requirements for becoming an elementary school teacher in the Uzbekistan: education, certification, background check, continuing education and specific exam scores.

To become an elementary school teacher, a person typically needs to have a bachelor's degree in education or a related field, such as child development or early childhood education. Some schools also require a master's degree or additional coursework beyond a bachelor's degree.

In addition to a degree, one typically needs to be certified or licensed to teach. The requirements for certification vary by regions, but usually involve passing a test of basic skills and a test of subject matter knowledge, as well as completing a student teaching or internship experience.

Moreover, all teachers are required to undergo a background check before they can be certified to teach. This is to ensure the safety and well-being of students. Once certified, teachers are required to participate in ongoing professional development and continuing education to keep their skills and knowledge up-to-date. Other regions may include requirements, such as a minimum scores or passing marks on specific exams.

Elementary school teachers have various needs to effectively support the growth and development of their students. Here are some of the key needs of elementary school teachers:

Supportive school culture: Teachers need to work in a supportive school culture that values their work and provides them with the resources and support they need to effectively teach their students. This includes access to professional development opportunities, adequate funding, and support from school administrators and colleagues.

Classroom resources: Teachers need access to a range of classroom resources, such as textbooks, technology, and instructional materials, to effectively teach their students. This can include things like manipulatives, multimedia tools, and books and other reading materials.

Time: Teachers need adequate time to plan lessons, assess student progress, and collaborate with colleagues. This includes protected planning time during the school day and opportunities for professional development.

Classroom management support: Teachers need support with classroom management to effectively maintain a safe and productive learning environment. This can include training on effective behavior management strategies and support from school counselors and other support staff.

Professional development: Teachers need access to ongoing professional development opportunities to stay up-to-date on best practices in teaching and to continuously improve their skills. This includes opportunities for training, workshops, and coaching.

Recognition and respect: Teachers need recognition and respect for the important work that they do. This includes support from school administrators, colleagues, and parents, as well as recognition for their achievements and contributions to student learning.

By meeting these needs, elementary school teachers can effectively support the growth and development of their students, foster a positive learning environment, and promote positive outcomes for their students.

Creative competencies are essential for elementary school teachers to effectively engage and inspire their students. Here are some of the key creative competencies that are important for elementary school teachers: teachers who possess **imagination** can create engaging and inspiring lessons that capture the attention of their students. They can develop creative solutions to problems and can think outside of the box to help students who are struggling. Imagination is a critical competency for elementary school teachers. Teachers with strong imagination skills are better able to engage their students and create a dynamic and stimulating learning environment.

Teachers can encourage creativity by providing opportunities for students to explore different ideas and express themselves through art, music, writing, and other creative activities. Additionally, storytelling is a powerful tool for engaging students and fostering their imagination. Teachers can use storytelling to create a sense of wonder and excitement in the classroom, and to help students connect with different cultures and perspectives. Moreover, play-based learning is a fun and engaging way for students to learn new concepts and develop their imagination. Teachers can incorporate play-based learning activities into their lessons, such as building with blocks or playing educational games. Teachers can experiment with different teaching methods to keep their lessons fresh and engaging. For example, they might use role-playing or simulations to help students understand complex concepts. Finally, teachers can help their students to develop their imagination by connecting their lessons to real-world situations. This can help students to see the relevance and practical applications of what they are learning.

By cultivating their imagination skills, elementary school teachers can create a dynamic and engaging learning environment that encourages their students to explore new ideas and perspectives. Additionally, teachers with strong imagination skills are better able to adapt to different learning styles and connect with their students on a deeper level.

Yet another important creative competency among elementary school teachers is **flexibility**. Teachers who are flexible can adapt to changing circumstances and can adjust their teaching style to meet the needs of individual students. They can modify lessons to accommodate different learning styles, abilities, and interests.

Flexibility is a critical competency for elementary school teachers. Teachers who are flexible can adapt to the changing needs of their students and their classrooms, and can adjust their teaching strategies as needed to meet the needs of diverse learners. Here are some ways that elementary school teachers can cultivate their flexibility:

Embracing change. Teachers can embrace change by being open to new ideas and approaches to teaching. This can include trying out new teaching strategies, incorporating new technology into their lessons, and adapting to changes in curriculum or school policies.

Being adaptable. Teachers can be adaptable by being willing to adjust their teaching strategies to meet the needs of different learners. This can include modifying lesson plans, providing additional support to struggling students, and differentiating instruction to meet the needs of students with diverse learning styles and abilities.

Maintain a positive attitude. Teachers can maintain a positive attitude by staying optimistic and focusing on solutions rather than problems. This can help teachers approach challenges with a flexible mindset and find creative solutions to problems that arise in the classroom.

Seek out professional development opportunities. Professional development opportunities can provide teachers with the skills and knowledge they need to be more flexible in their teaching. This can include training in different teaching strategies, classroom management techniques, and technology tools [14].

Collaborate with colleagues. Collaboration with colleagues can provide teachers with new ideas and strategies for adapting to the needs of their students. Teachers can work together to share ideas, provide support, and brainstorm creative solutions to challenges in the classroom.

By cultivating their flexibility, elementary school teachers can adapt to the changing needs of their students and create a positive and productive learning environment.

Furthermore, **collaboration** as a key creative competency allows teachers to work together to develop new ideas, share best practices, and solve problems. Teachers who are good collaborators can work effectively with colleagues, parents, and other stakeholders to create a supportive learning environment.

Collaboration is a critical competency for elementary school teachers. Teachers who are skilled at collaborating with colleagues, parents, and community members are better able to create a supportive and effective learning environment. Here are some ways that elementary school teachers can cultivate their collaboration skills:

Work with colleagues: Teachers can collaborate with colleagues by sharing best practices, brainstorming ideas, and working together to solve problems. This can involve collaborating within their own school or district, as well as with teachers from other schools and districts.

Involve parents and community members: Teachers can involve parents and community members by inviting them into the classroom, providing opportunities for them to volunteer, and communicating regularly with them about their students' progress.

Participate in professional development: Professional development opportunities, such as workshops and conferences, provide teachers with the opportunity to collaborate with other educators and learn new skills and strategies.

Use technology to collaborate: Technology provides a range of tools for collaboration, such as video conferencing, online forums, and collaborative documents. Teachers can use these tools to collaborate with colleagues, parents, and community members, even if they are in different locations.

Model collaboration for students: Teachers can model collaboration for their students by working collaboratively with their colleagues, involving parents and community members in the classroom, and providing opportunities for students to work together on group projects.

By cultivating their collaboration skills, elementary school teachers can create a supportive and effective learning environment that benefits both their students and themselves. Additionally, teachers who are skilled at collaborating with others are better able to adapt to changing circumstances and provide their students with a well-rounded education [15].

Besides, **effective communication** skills are essential for teachers to effectively communicate with their students, colleagues, and parents. Teachers who are good communicators can explain complex ideas in simple terms, provide constructive feedback, and motivate students to achieve their goals. Effective communication is an essential competency for elementary school teachers. Clear and effective communication helps teachers to build positive relationships with their students, parents, and colleagues, and it is critical for creating a supportive and productive learning environment. Here are some ways that elementary school teachers can cultivate their communication skills:

Use clear and concise language: Teachers should use clear and concise language when communicating with their students, parents, and colleagues. This can help to ensure that everyone understands the message and knows what is expected of them.

Tailor communication to the audience: Teachers should tailor their communication to the audience they are speaking to. For example, communication with parents may be different from communication with students. Teachers should also be aware of cultural differences and adjust their communication accordingly.

Listen actively: Active listening is an essential part of effective communication. Teachers should listen carefully to what their students, parents, and colleagues are saying and provide appropriate feedback.

Use appropriate body language: Nonverbal communication, such as body language, can also play a significant role in effective communication. Teachers should use appropriate body language to convey their messages, such as maintaining eye contact and using facial expressions that match their tone of voice.

Use a variety of communication channels: Teachers should use a variety of communication channels to reach their students, parents, and colleagues. This can include email, phone calls, face-to-face meetings, and social media.

Provide regular feedback: Providing regular feedback to students and parents can help to build positive relationships and support student learning. Teachers should provide feedback that is specific, constructive, and actionable.

By cultivating their communication skills, elementary school teachers can create a positive and productive learning environment, build positive relationships with their students, parents, and colleagues, and help their students to succeed both academically and socially.

Additionally, **problem-solving** skills are essential for teachers to identify and address the challenges that arise in the classroom. Teachers who are good problem-solvers can analyze problems, develop creative solutions, and implement effective strategies to improve student learning [16].

Problem-solving is a key competency for elementary school teachers. Teachers who are skilled at problem-solving are better able to identify and address issues in the classroom, and to help their students develop critical thinking skills. Here are some ways that elementary school teachers can cultivate their problem-solving skills:

Analyze data: Teachers can use data to identify areas where their students are struggling and to develop strategies to address these issues. This can involve analyzing test scores, observing student behavior, and collecting feedback from students and parents.

Brainstorm solutions: Once a problem has been identified, teachers can brainstorm potential solutions. This can involve working with colleagues, researching best practices, and seeking input from students and parents.

Implement and evaluate solutions: Once a solution has been identified, teachers can implement it and evaluate its effectiveness. This can involve tracking student progress, collecting feedback from students and parents, and making adjustments as needed.

Encourage critical thinking: Teachers can encourage critical thinking skills by providing opportunities for students to solve problems on their own. This can involve presenting students with open-ended questions and challenges, and encouraging them to come up with their own solutions.

Use technology to support problem-solving: Technology provides a range of tools that can support problem-solving, such as interactive whiteboards, educational software, and online resources. Teachers can use these tools to engage their students and help them develop their problem-solving skills.

By cultivating their problem-solving skills, elementary school teachers can create a more effective and engaging learning environment for their students. Additionally, teachers who are skilled at problem-solving are better able to adapt to changing circumstances and provide their students with the tools they need to succeed.

These creative competencies can help elementary school teachers to inspire and engage their students, create a supportive learning environment, and promote positive outcomes for their students.

IV.   Conclusions

Creative competencies are essential skills that enable individuals to generate, develop and communicate new ideas or concepts. In the context of teaching, creative competencies are vital for teachers to effectively engage their students and facilitate learning. Creative competencies are essential skills that teachers need to have to effectively engage and inspire their students. Teachers who possess creative competencies are more likely to create an engaging and supportive learning environment that promotes student success. By engaging students in new and interesting ways, creative teachers can help students retain information better and apply it in practical situations.

Because of strong need in enhancing student engagement, developing critical thinking skills in students, adapting to changing needs, inspiration of creativity in students and improving their academic performance creative teaching methods play a paramount role in public education.

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