ABSTRACT

All the teachers are determined to help all students reach their full potential. “We cannot build the future for our youth but we can build our youth for the future.” (Roosevelt). It is our duty to do whatever we can to help our students connect learning with real life and to provide them with the necessary skills to prepare them for success. This challenging job and it is our responsibility to prepare our young people for the unique demands of a 21st century world. Every child should possess strong content mastery, as well as the “Four Cs”: critical thinking, communication, collaboration, and creativity. This paper is only a step to get started with ideas on how to bring the “Four Cs” to life in classroom and work together to improve our practices. As our global economy expands, our need to prepare this next generation for new careers becomes even more imperative. If we seize this moment and work together, our students will be our most valuable assets to compete in the 21st century.

Keywords: Critical Thinking & Problem Solving; Collaborative Learning; Communication; Creativity & Innovation

INTRODUCTION

Today, we live in a world dominated by technology. Our interactions with the world and with one another are mediated by computers, tablets and smart phones. The answer to practically any question you might have, at any moment, is a few keystrokes and fractions of a second away. In the same way that print changed how humans perceive information, now technology has once again flipped the world on its head. “We should seriously consider the claim that we are now undergoing one of the most significant technological revolutions for education since the progression from oral to print and book based teaching.” (Kellner Douglas)

Preparing students for today’s world demands that education be delivered in a vastly different manner than what we see today in Indian schools. In this world where information creation and discovery are taking place faster than we can bring that information to our classrooms, true 21st century learning must involve more than information literacy alone. Certainly, the traditional “3 Rs” – reading, writing and arithmetic – play a core role in the 21st century classroom. But in this new world, those “content domains” become avenues for imparting a whole array of 21st century skills – skills that will allow students to function, learn and adapt throughout life in this post-modern world.

Our young people to be able to compete in the global economy, along with the 3 Rs; a new “4 Cs” are also required: Critical thinking and problem solving, Communication, Collaboration, and creativity and innovation. These are essential 21st Century skills if they are to be successful.

A strong lead is to be taken to construct and advocate for the adoption of a complete framework that has become a touchstone among education leaders nationwide. This offers an expansive vision that brings core subject knowledge together with creativity, collaboration, critical thinking and communication skills; life and career skills; and information, media and technology skills. (2011)
According to 21st Century Schools, such settings “will be laced with a project-based curriculum for life aimed at engaging students in addressing real-world problems, issues important to humanity, and questions that matter.” (2012) when true 21st Century learning is taking place:

- Schools stop being buildings defined by walls and times of day; they transform into community “nerve centers.” Walls become porous and transparent, and teachers and students become connected to the outside world, from the immediate surrounding community to people and knowledge across the planet.
- Teachers stop being dispensers of data and become something more akin to coaches, imparting skills that help students become not just content experts, but expert learners.
- Learners are excited by flexible, open-ended, project-based, real-world learning situations that not only teach content skills, but instill curiosity (fundamental to lifelong learning), develop communication and teamwork skills, and the freedom and responsibility that comes from taking charge of their own learning. (2012)
- When we can look at a school and see these things happening in systematic manner, we can be confident that the students are getting the great education they’ll need in the future. Creating 21st Century classrooms, schools and districts is no small order, but it is being done across the nation. Once we begin to consider the possibilities of the 21st Century classroom, our schools become more than just places for preparing students for the next level of education. They become places where we truly prepare students for lifelong success and personal fulfillment.

OBJECTIVES OF THE STUDY

1. To discuss the skills required for 21st century learners.
2. To determine the importance of four C’s in education.
3. To discuss how four C’s can be integrated in classroom.
4. To give recommendation for further perspectives.

The Four C’s

What was considered a good education 50 years ago, however, is no longer enough for success in college, career, and citizenship in the 21st century. The “21st Century Skills” movement is more than a decade old. Yet, educators still pose important questions about how to move 21st century education forward. Technology has the potential to remove barriers for students and educators all over the world. Powerful software and the Internet are changing our access to knowledge. Innovative ways to teach and learn are redefining the classroom experience. And there are new expectations for students: beyond basic skills, they need proficiency in collaboration, communication, and information management – all 21st century skills –, and access to the learning tools that put these skills within reach. But there was near unanimity among all the educators that four specific skills are the core of this movement and were the most important. They became known as the “Four Cs” —

- critical thinking and problem solving
- communication,
- collaboration, and
- creativity innovation

Now the challenge is building the “Four Cs” into our 21st century education.

Importance of Four C’s

Indian system of education was built for an economy and a society that no longer exists. In the manufacturing and agrarian economies that existed 50 years ago, it was enough to master the “Three
Rs” (reading, writing, and arithmetic). Life today is exponentially more complicated and complex than it was 50 years ago. This is true for civic life as much as it is for work life. In the 21st century, citizenship requires levels of information and technological literacy that go far beyond the basic knowledge that was sufficient in the past.

With a host of challenges facing our communities, along with instant connectivity to a global society, civic literacy couldn’t be more relevant or applicable to the curricula in our schools. Global warming, immigration reform, pandemic diseases, and financial meltdowns are just a few of the issues today’s students will be called upon to address. Today’s students must be prepared to solve these challenges. In additions, workforce skills and demands have changed dramatically in the last 20 years. The rapid decline in “routine” work has been well documented by many researchers and organizations. At the same time, there has been a rapid increase in jobs involving non routine, analytic, and interactive communication skills. Today’s job market requires competencies such as critical thinking and the ability to interact with people from many linguistic and cultural backgrounds (cultural competency)

Our ever changing workforce creates a critical need for innovation. In the modern “flat world,” the “Three Rs” simply aren’t enough. If today’s students want to compete in this global society, however, they must also be proficient communicators, creators, critical thinkers, and collaborators (the “Four Cs”). Students need to master additional subject areas, including foreign languages, the arts, geography, science, and social studies Educators must complement all of those subjects with the “Four Cs” to prepare young people for citizenship and the global workforce. Today’s students need critical thinking and problem-solving skills not just to solve the problems of their current jobs, but to meet the challenges of adapting to our constantly changing workforce.” It is clear that the “Four Cs” needs to be fully integrated into classrooms, schools, and districts around the country to produce citizens and employees adequately prepared for the 21st century. This paper is intended to help you understand the fundamental aspects of the “Four Cs” and how you can implement the min to your instruction.

**Critical Thinking and Problem Solving**

Critical thinking and problem-solving is an ability to use various types of reasoning (inductive, deductive, etc.), analyze the parts, make judgments and decisions, evaluate major alternative, synthesize and make connections between information and arguments, interpret and draw conclusions, reflect critically, solve different kinds of unfamiliar problems in both conventional and innovative ways.

The link between critical thinking and education is obvious: one can’t learn well without thinking well. Critical thinking contributes to career success, but also to success in higher education. In research conducted for the Bill and Melinda Gates Foundation, University of Oregon professor David T. Conley finds that “habits of mind” such as “analysis, interpretation, precision and accuracy, problem solving, and reasoning” can be as or more important than content knowledge in determining success in college courses.

**Importance**

Teaching critical thinking and problem solving effectively in the classroom is vital for students. Learning critical thinking leads students to develop other skills, such as a higher level of concentration, deeper analytical abilities, and improved thought processing. Today’s citizens must be active critical thinkers if they are to compare evidence, evaluate competing claims, and make sensible decisions. Today’s 21st century families must sift through a vast array of information regarding financial, health, civic, even leisure activities to formulate plausible plans of action. The solutions to international problems, such as global warming, require highly developed critical thinking and problem-solving abilities. In everyday work, employees must employ critical thinking to better serve customers, develop better products, and continuously improve themselves within an ever-changing global economy.
Relation with Other C’s

When one engages in high-quality thinking, one function both critically and creatively; one produces and assesses, generates and judges the products of his or her thought. Critical thinking also draws on other skills, such as communication and information literacy, to examine, then analyze, interpret, and evaluate it. Successful problem solving in the 21st century requires us to work effectively and creatively with computers, with vast amounts of information, with ambiguous situations, and with other people from a variety of backgrounds.

Communication

Communication can be defined as ability to articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts, listen effectively to, use communication for a range of purposes, use multiple media and technologies and know how to assess impact and their effectiveness.

Importance

Students must be able to effectively analyze and process the overwhelming amount of communication in their lives today. Which information sources are accurate? Which ones are not? How can they be used or leveraged effectively? The power of modern media and the ubiquity of communication technologies in all aspects of life make teaching strong communication skills even more important. While education has always emphasized fluent reading, correct speech, and clear writing, there is evidence that students are not mastering these most basic skills. Linguistically and culturally effective communication is essential to contribute successfully to global teams. And as technology gives rise to global work teams that span time zones, nations, and cultures, it is imperative that tomorrow’s graduates communicate clearly and effectively in a variety of languages. Expressing thoughts clearly, crisply articulating opinions, communicating coherent instructions, motivating others through powerful speech—these skills have always been valued in the workplace and in public life. But in the 21st century, these skills have been transformed and are even more important today.

Relation with Other C’s

While it is important to emphasize communication skills, it can be difficult to separate them from the other Cs—especially collaboration. Communication competencies such as clearly articulating ideas through speaking and writing are closely related to collaboration skills, such as working effectively with diverse teams, making necessary compromises to accomplish a common goal, and assuming shared responsibility for collaborative work. Communication cannot be effective unless the message is received and understood. Research backs up the importance—and interconnection—of communication and collaboration as well. It is important to consider how today technology shapes words and images, as we receive many of our messages today through one or more digital devices. Thus, communication skills are intertwined with information, media, communication, and technology skills.

Collaboration

Collaboration demonstrate ability to work effectively and respectfully with diverse teams, exercise flexibility and willingness, to be helpful in making necessary compromises, to accomplish a common goal, assume shared responsibility for collaborative work, and value the individual contributions made by each team member.

Importance

One of the precious gift of internet is that today world has become interconnected and emphasizes the benefits of collaborative work. The resulting products are those to which millions of users have contributed. The comprehensive nature of these articles reflects the collaborative culture of the site and demonstrates how people working together can produce extremely inclusive and valuable resources. Generally, collaboration has been accepted as a skill that’s essential to achieve meaningful and effective results. In the past decade, however, it has become increasingly clear that collaboration is not
only important but necessary for students and employees, due to globalization and the rise of technology. Various scholars and authors have emphasized the importance of collaboration. Author James Surowiecki, for example, explains how we use the “wisdom of crowds” in the new economy by saying that “under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them.” Surowiecki underscores the importance of collaboration by remarking that “… a large group of diverse individuals will come up with better and more robust forecasts and make more intelligent decisions than even the most skilled ‘decision maker.’ Diversity brings multiple individual and cultural perspectives into the collaboration. Not only does a collaborative effort create more holistic results than individual efforts, but it also creates knowledge for a greater number of people. As a result of students working collaboratively, the group can generate more knowledge, making collaboration a key ingredient to student success in today’s global society.

**Creativity and Innovation**

Creativity can be defined as an ability to use a wide range of ideas, create new and worthwhile ideas, analyze and evaluate original ideas; develop, implement and communicate new ideas to others effectively, be open and responsive to new and diverse perspectives; demonstrate originality and inventiveness in work understand that creativity and innovation are part of a long-term cyclical process of small successes and frequent mistakes. Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur.

**Importance**

Author Daniel Pink remarked, “The future belongs to a very different kind of person with a very different kind of mind—creators and empathizers, pattern recognizers and meaning makers. These people…will now reap society’s richest rewards and share its greatest joys.” If students leave school without knowing how to continuously create and innovate, they will be underprepared for the challenges of society and the workforce. In today’s world of global competition and task automation, innovative capacity and a creative spirit are fast becoming requirements for personal and professional success. Sir Kenneth Robinson, a leading thinker and speaker on creativity said, “Creativity is as important in education as literacy and we should treat it with the same status.” According to Robert Sternberg of Tufts University, “Successful individuals are those who have creative skills, to produce a vision for how they intend to make the world a better place for everyone; analytical intellectual skills, to assess their vision and those of others; practical intellectual skills, to carry out their vision and persuade people of its value; and wisdom, to ensure that their vision is not a selfish one.” In a world in which good design is increasingly used as a means of differentiating objects of mass production, creative design skills are highly desired in the labor force. Howard Gardner cites “the creating mind” as one of the five minds we’ll need in the future. To cultivate such a mind, he says, we need an education that features “exploration, challenging problems, and the tolerance, if not active encouragement, of productive mistakes.” Similarly, author Richard Florida stated, “I call the age we are entering the creative age because the key factor propelling us forward is the rise of creativity as the primary mover of our economy.” Perhaps Pink sums it up best, “In a world enriched by abundance but disrupted by the automation and outsourcing of white-collar work, everyone must cultivate an artistic sensibility. We may not all be Dali or Degas. But today we must all be designers.”

**Relation with Other Cs**

Creativity is closely intertwined with some of the other skills previously identified. Innovation today has a social component and requires adaptability, leadership, teamwork, and interpersonal skills. Increasingly, today the capacity to innovate is linked to the ability to connect with others and with a facility for communication and collaboration.
Recommendations

- Educators must reflect on what changes are required in the Common Core standards and the examinations system should deemphasize memorization and more strongly emphasize critical thinking and problem solving.
- Educators must adopt strategies that accentuate the importance of problem solving, Critical thinking and collaborative learning.
- Some strategies that can be adopted are: Brainstorming, inductive & deductive reasoning, project based, discovery method, role playing, socialized recitation etc.
- Teacher trainee curriculum should also emphasize how to teach critical thinking, collaboration, communication, and creativity skills.
- Technology has a crucial role to play in mastering the “Four Cs.” While critical thinking, collaboration, communication, and creativity can all be taught in a low-tech environment, 21st century students need to harness technology to be effective problem solvers, collaborators, communicators, and creators. They must use technology to collaborate with others in communities beyond their own.
- All students will need the “Four Cs” to achieve in the new global economy. Educators must take a step forward to design lessons in which special education students engage in thinking creatively to solve real-world problems.
- Generation of teachers is required who aim to develop learners instead of teaching them, but who help their pupils to become independent (learning to learn), who provide students with motivation and interest for life-long learning and urge them to become autonomous learners, is essential in the education of the future.

CONCLUSION

In the fast-changing world of the early 21st century education is also changing. The new social challenges and demands towards education and teachers change schools into institutions with modern aims and social contracts. Over the last decade, an enormous amount of energy has been expended on the need for new policies around 21st century learning. As part of the changes the role of schools and education will also be different both in the educational system and in the society. Together with them the role of teachers will also change. However, if 21st century education is ever going to make a difference in the lives of students, teachers must have the support they need to do this work in classrooms every day. The teaching critical thinking and problem solving, communication, collaboration, and creativity and innovation are not new concepts for educators. In fact, they are the basis of great teaching, and most teachers aspire to teach in a manner that incorporates these strategies. The number of students leaving our schools and districts with effective critical thinking, communication, collaboration, and creativity skills, however, is very uneven. We now know, based on the work of the 21st Century Skills movement, that every child needs these skills to be an effective citizen and participant in the new global economy. Teachers and education support personnel have a huge role to play and ensure that every student is adequately prepared. This paper is intended to help in preparing student for a new global landscape.

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