

FOSTERING 21ST CENTURY SKILLS FOR SENIOR SECONDARY TEACHERS: CHALLENGES AND ROADMAP

Dr. Hemendra Kumar Singh,

Associate Professor,
Department of Education,
University of Lucknow.

Jyoti Singh,

Research Scholar,
Department of Education,
University of Lucknow.

ABSTRACT

Work and life in the current, 21st century demand and supply specific skills from students as well as teachers in order to achieve quality education. . We use the term 21st century skills because we believe that it is currently the most widely recognized and used term internationally, though we could just as easily substitute any of the previously mentioned terms for 21st century skills. 21st century skills responsibility depends on teachers to prepare all students educational demand for life and work, in dynamic world, by equipping the students with required skills. The main objective of this study is to analyze the problems which 21st century teachers are facing in order to acquire and deliver 21st century skills. And further suggested roadmap to achieve or acquire 21st century skills for better educational results. The finding also suggests 7 major solutions to teach 21st century skills. Further, 21st century skills are centre for the teachers to improve education quality in secondary schools in the line with present educational development.

Keywords: 21st century skills, Senior Secondary, Teachers, School.

INTRODUCTION

In today's world education order preparing student for work and life in the 21st century is complicated but possible to achieve. Globalization, technology, migration, international competition, changing markets, and transnational environmental and political challenges add a new urgency to develop the skills and knowledge students need for success in the 21st century context. Educators, education ministries and governments, foundations, employers, and researchers refer to these abilities with terms that include "21st century skills," "higher-order thinking skills," "deeper learning outcomes," and "complex thinking and communication skills."

Interest in these skills is not new. Educational systems around the world are looking for best practices to prepare children and young people in schools today to cope with the life and work increasingly complex requirements of the 21st century. The life and work styles of the 21st century demand a certain skills set from students. It is the school's and the teachers' responsibility to prepare all children for the educational demands of life and work, in a rapidly changing world, by equipping them, the students, with the required skills. Because teachers are expected to empower the students with such skills, teacher preparation programs should offer multiple opportunities for teacher candidates to learn, develop and practice these skills, named 21st Century Skills. differs between countries, as

does the emphasized composition of knowledge, skills, and values. We use the term *21st century skills* because we believe that it is currently the most widely recognized and used term internationally, though we could just as easily substitute any of the previously mentioned terms for 21st century skills. Worldwide interdependence and glocalization are the major forces in contemporary life. They are already at work and will leave a deep imprint on the twenty first century (UNESCO, 1997). In order to meet global challenges, UNESCO (2010) has emphasized on Education as it is a major catalyst for human development and rapid advances in education can realize the sensitivity towards culture, environment, economy and changing needs of the today's world order. In recent years, education systems worldwide have also developed frameworks with an increased emphasis on developing the skills, knowledge, attitude necessary for achieving educational success in 21st century.

WHY TEACHERS NEED 21ST CENTURY SKILLS

There are many reasons why today's world order need teachers with 21st century skills, but we will discuss the few of them because discussion of all are not possible.

Firstly, the economic rationale is that computers and machines can cost-effectively do the sorts of jobs that people with only routine knowledge and skills can do, which means that the workplace needs fewer people with only basic skill sets and more people with higher-order thinking skills. Further, supply and demand in a global rather than national or local marketplace increases competition for workers who can add value through applying non-routine, complex thinking and communication skills to new problems and environments.

Secondly, Due to the decreasing demand for middle-class jobs that require only routine knowledge and skills there is need for Teachers and Students to adapt 21st century skills.

Lastly, In today's world every nation are somehow or directly interdependent on each other. This interconnection leads to dependency on each other. This inter dependency is the third rationale for teaching and learning 21st century skills.

These three causes are the motivation behind achieving 21st century skills because skill and knowledge go hand in hand or sometimes there is no knowledge without skill and there is no skill without knowledge.

CHALLENGES COMING IN THE PATH OF 21ST CENTURY SKILLS

21st century skills for teachers are not easy to adapt, there are some challenges which are coming in the path of 21st century skills. They are as following-

1. There is no substitute of classroom and book approach to teaching, all other ways are complimentary. Though many countries are shifting the focus of their educational systems away from this model, it often prevails for two primary reasons: because educational systems are hard to change²⁰ and because the transmission model demands less disciplinary and pedagogical expertise from teachers than does the contrasting "constructivist" model through which students actively—rather than passively—gain skills and knowledge.²¹ Through the transmission model, students have the opportunity to learn information but typically do not have much practice applying the knowledge to new contexts, communicating it in complex ways, using it to solve problems, or using it as a platform to develop creativity. Therefore, it is not the most effective way to teach 21st century skills.
2. Everything in present time comes at a cost, even water which we drink today comes at a cost. Skills also demands some cost, and

the problem is who will bear that costs, Student, Teacher or State? This is big problem in today's time that is challenging. In country like India there is a type of mixed system, we can see there is state, there is private sector, there is mixed sector, and this creates question of I will, you will or we will pay the cost. There everything in our country but all the things do not get to everyone. There is huge inequality. There is huge inequality in Skills among teachers too.

3. Third and most challenging one is that students don't want to learn them. Some students are technical enough to learn then but some are not. Some even don't take interest in learning them.
4. Fourth and last and most important challenge is that teachers or students or any on if learning something then that person want to get job. But the problem is that there is no guarantee by the state that if we or anyone learns skills then we get job or state government job. And this does not motivate teachers to learn the 21st century skills.

SOLUTIONS FOR 21st CENTURY SKILLS

In the following sections, we summarize solutions as it relates to learning and teaching 21st century skills and recommend general lessons that other education systems can apply to move toward similar outcomes. All the lessons are about how students and teacher can learn 21st century skills and how pedagogy can address their needs.

1. **Should be relevant for Jobs:** Any curriculum that is relevant for job that students need and try to learn. But we can see in today's time that most of the curriculum are not much relevant for job, because that curriculum do not involve that skills that are needed for job or employment, so this gap must be filled in order

to do so. To be relevant any curriculum must be relevant to students lives.

2. **Discipline Learning:** Learning through disciplines entails learning not only the knowledge of the discipline but also the skills associated with the production of knowledge within the discipline. Through disciplinary curriculum and instruction students should learn why the discipline is important, how experts create new knowledge, and how they communicate about it. Each of these step maps closely to the development of 21st century skills and knowledge.

Developing other 21st century skills, such as leadership, adaptability, and initiative, can also take place through the disciplines when teachers explicitly define those objectives and facilitate ways for students to develop them.

3. **Learning Lower and Higher Order thinking skill at a time:** Teachers and students can—and should—develop lower- and higher-order thinking skills simultaneously. Lower-order exercises are fairly common in existing curricula, while higher-order thinking activities are much less common.³⁸ Higher-level thinking tends to be difficult for students because it requires them not only to understand the relationship between different variables (lower-order thinking) but also how to apply—or transfer—that understanding to a new, uncharted context (higher-order thinking). Transfer (which we discuss in more detail below) tends to be very difficult for most people. However, applying new understandings to a new, uncharted context is also exactly what students need to do to successfully negotiate the demands of the 21st century.

4. **Work as teamwork and promote learning:** It is not only a desirable outcome; it is also an important condition for optimal learning. Students learn better with peers. In typical transmission-model classrooms, students do not learn from and with their peers. The teacher and textbook transmit information, and the student engages in a one-to-one interchange with the

teacher. Through this type of interaction, students lose the opportunity to learn from each other and to develop the skill of working with others. The transmission model, therefore, not only robs students of the opportunity to develop the skills of listening to and learning from others and sharing their thoughts, opinions, and knowledge constructively; it also detracts from opportunities to develop other 21st century skills. So, there are many ways in which teachers can design instruction to promote learning with others.

5. **Technology Induced Learning:** Technology offers the potential to provide students with new ways to develop their problem solving, critical thinking, and communication skills; transfer them to different contexts; reflect on their thinking and that of their peers; practice addressing their misunderstandings; and collaborate with peers—all on topics relevant to their lives and using engaging tools. There are also many other examples of web-based forums through which students and their peers from around the world can interact, share, debate, and learn from each other. The Internet itself also provides a forum for students' development of 21st century skills and knowledge.

Beyond its pedagogical potential, there are many other ways in which technology can affect education. Teachers can use it to develop and share best practices. Without direction, teachers tend to use it to mimic the transmission model. If students use technology only to listen to lectures, read text, and regurgitate information to their teachers, they encounter all of the pitfalls we have discussed throughout this paper.

6. **Teach students how to learn:** Not only is learning to learn a critical skill in itself; activities that develop meta-cognition also help students to learn skills, knowledge, strategies, and attitudes more effectively. Attitudes, and dispositions that students can learn through their formal schooling. Therefore, educating

them for the 21st century requires teaching them how to learn on their own. To do so, students need to be aware of how they learn. Teachers can develop students' metacognitive capacity by encouraging them to explicitly examine how they think.

In addition to developing metacognitive skills, it is also important for students to develop positive mental models about how we learn, the limits of our learning, and indications of failure. 7 An effective way for teachers to cultivate the incremental model includes praising students for their effort and how they learn rather than for their intelligence as well as discussing mental models as part of other metacognition-building activities.

CONCLUSION

Today's world order demands different set of skills in every field, without skills it is very challenging to survive. Teachers of 21st century also requires skills to lean and teach students. This paper tells us about how to teach at best level with skills. In order to make 21st century learners, we must focus on teacher's 21st century and rethink how we can evaluate and train teachers. Although there is some progress toward this goal, the remaining work will be demanding and complicated, and it will require precisely the sorts of skills that we deem critical for the next generation. If we believe that 21st century skills are the key to solving economic, civic, and global challenges and to engaging effectively in those spheres, then we must act on the belief that using those skills to overhaul our education systems is possible. Teachers are integral part of the society. It is important that teacher education should be of high skilled. Teacher education curriculum and teachers' performance should be constantly evaluated to determine what to improve and to meet current demand of the society. With the changing world, teachers must also evolve to keep up with the pace.

REFERENCES

1. Asia Society. (2011). *Improving teacher quality around the world: The international summit on the teaching profession*. New York, NY: Asia Society.
2. Assessment and Teaching of 21st Century Skills. (Undated). What are 21st century skills. Retrieved March 28, 2012, from <http://atc21s.org/index.php/about/what-are-21st-century-skills/>
3. Ball, D. L. (1994, November). *Developing mathematics reform: What don't we know about teacher learning—but would make good working hypotheses?* Arlington, VA: Conference on Teacher Enhancement in Mathematics K–6.
4. Curriculum Development Institute. (2001). *Learning to learn: The way forward in curriculum*. Hong Kong: Curriculum Development Institute. Retrieved from www.edb.gov.hk/index.aspx?langno=1&noDelID=2365
5. Fischman, W., & Gardner, H. (2009). Implementing GoodWork programs: Helping students to become ethical workers. *Knowledge Quest*, 37(3), 74–79.
6. Fullan, M., & Watson, N. (2011). *The slow road to higher order skills: Report to Stupski Foundation*.
7. Hanushek, E. A. (2005). *Economic outcomes and school quality: Education policy series*. Paris, France: International Institute for Educational Planning and International Academy of Education.
8. Hopkins, D., West, M., & Ainscow, M. (1996). *Improving the quality of education for all*. London, UK: David Fulton.
9. Lee, S.-K. (2012, March 14–15). Preparing 21st century teachers: Singapore's approach. New York, NY: International Summit on the Teaching Profession.