Exploring the Existing Quality Teaching Practices in Classroom at Secondary Schools Level

Dr. Azhar Mahmood
Associate Professor/Chairperson, Department of Educational Leadership & Management, Faculty of Education, International Islamic University Islamabad.
Email: Azhar.mahmood@iiu.edu.pk

Dr. Khadija Karim
Assistant Professor, Department of Education, Sardar Bhadur Khan Womens University Quetta.
Email: Khadijakarim17@yahoo.com

Dr. Sufi Amin
Assistant Professor, Department of Educational Leadership & Management, Faculty of Education, International Islamic University Islamabad.
Email: sufi.amin@iiu.edu.pk

Received on: 25-01-2024 Accepted on: 28-02-2024

Abstract

Students are active learners in the 21st century rather than simple listener or spectators. According to Saavedra and Opfer (2012) 21st century skills and competencies are complex and often challenging to teach. Thus the purpose of this study was to find out existing teaching practices in the classroom at secondary school level, point out gaps between existing teaching practices and demand of the quality teaching in the 21st century as well as to discuss quality teaching in the new era. Explanatory Sequential Mixed Methods Research Design was used to get data while applying Mixed Methods Approach. Population of the study was secondary school learners/students, secondary school teachers and principals. Sample was selected randomly from all over the Pakistan. Self-structured questionnaire and semi-structured interview was used as research tools. The validity of the research tools was sufficiently ensured. Internal consistency and reliability of the survey questionnaire were checked through Cronbach's alpha and the overall reliability was found as 0.83. Data were collected by personal visits. Quantitative data were analyzed by SPSS using appropriate statistical techniques and qualitative data were analyzed by thematic analysis. Findings were drawn and recommendations were given on the basis of conclusion of the study. Data were collected through accurate, reliable, valid, and well-designed tools. It was properly organized, tabulated, analyzed, and interpreted through modern statistical methods i.e. Percentages, Arithmetic Mean, Standard Deviation, chi-square. Thematic analysis technique was employed for qualitative data analysis. It is an accessible, flexible, and most popular

method of qualitative data analysis. It is a method for systematically identifying, organizing, and offering insight into, patterns of meaning (themes) across a dataset (Braun & Clarke, 2012).

Keywords: Quality, Quality Education, 21th Century Skills, Quality Teaching

Introduction

21th century classrooms continue to develop with the integration of innovative technologies, it is necessary for teachers to be prepared to bridge both theory and practice associated to these tools so as to boost up the student learning. When attentively integrated, technology holds the potential to transmute traditional teaching and learning processes, developing further evocative communications between students and teachers (Archambault, Wetzel, Foulger, & Williams, 2010; Unsworth, 2018).

Therefore, our educational system in general, and higher education in particular, should be prepared to prepare the next generation for life after college and university education in light of the fast shifting priorities in the global community. Because we don't need an educational system that merely helps students remember facts and figures, but rather needs them to be critical consumers of knowledge and information, we will need to embed 21st century skills and competencies in the existing traditional discipline areas in order to achieve this goal. Additionally, our educational system must include chances for knowledge production, including the ability to organise information (through Facebook, blogs, wikis, YouTube, etc.) and develop new knowledge. Hence, it is revealed that if we fail to assimilate innovative knowledge, skills, and competencies into the educational system of a technologically advanced world, we threat being accountable for risking the safety of our countries.

Since, 2002, the Partnership for 21st Century Skills (P21) occurred as a foremost support group for promoting 21st-century skills. This organization arranged the overview and incorporation of these skills into classrooms. The P21 Framework for 21st Century Learning was developed in reaction to worries regarding alumni's absence of preparation for the 21th centrury. The P21 initiative delivers teachers, the business community, and policymakers with the chance to make a complete vision of 21st-century education, empowering people to effectually contribute as world-wide citizens and professionals in today's workforce. The framework boosts institutions, administrators, and educators to integrate 21st-century skills into their educational institutions (P21, 2008).

Rethinking Pedagogy is an important issue to meet the demand of twenty-first century. Traditional practices focusing rote learning which are unable to advance learners' skills and competencies. To develop the higher-order thinking, learners must involve in meaningful learning (Barron & Darling-Hammond, 2018). After many years of predominance of behaviorism paradigm shift from behaviorism to cognitivism to constructivism as well as fundamental change has been occurred in the concepts and practices of teaching. The teacher of twenty first century has to play a role very different instead of a traditional teacher. Main role of twenty first century teacher is engage learner in deep knowledge, deep understanding, problematic knowledge, higher- order thinking and sustentative communication. According to Saavedra and Opfer (2012) 21st century skills and competencies are complex and often challenging to teach, because students do not develop these skills and competencies unless they are explicitly taught.

Teaching quality in practice compose a set of activities and actions that improve learner

outcomes. Quality teachers transfer knowledge through good communication and diagnostic skills, to arrange a broad array of strategies to meet learner needs. Robenson (2010) discussed that when teaching and learning is at its best, learner, community; and nation thrive. Quality Teaching Model developed by Department of Education and Training (2003), NSW Australia describes that 21st century instruction is based on three pedagogical dimensions/ principles: Aspects of Intellectual Quality, Aspects of Quality Learning Environment and Aspects of Significant. Hence, this study emphasis the conceivable outlooks and forms of pedagogy and learning in the digital age that access the teachers and students to face the challenges of 21st century.

After many years of predominance of behaviorism paradigm shift from behaviorism to cognitivism to constructivism as well as fundamental change has been occurred in the concepts and practices of teaching. The teacher of twenty first century has to play a role very different instead of a traditional teacher. Main role of twenty first century teacher is engage learner in deep knowledge, deep understanding, problematic knowledge, higher- order thinking and sustentative communication. According to Saavedra and Opfer (2012) 21st century skills and competencies are complex and often challenging to teach.

In order to implement change and adopt the framework for 21st century abilities in their teaching and professional activity, this study aims to identify the traits of instructors. According to Parker, Bush, and Yendol-Hoppey, (2016) and their investigation on teachers' acceptance of change, these variables will comprise fundamental demographics, number of years spent instructing, tenure status, and other fundamental school statistics. The attitudes and dispositions of teachers will also be measured in relation to the key components of the 21st century standards along a continuum of agree and disagree. This information will be helpful to administrators in their search for new teachers who are ready, willing, and able to start their careers right away with a focus on 21st century learning. The generated information may also be used to comprehend better what kind of assistance, professional growth, and/or training instructors require to produce the necessary student results for a highly competitive 21st-century workforce.

Problem Statement

The challenging task of converting the traditional classroom into 21st-century learning settings is one that faces today's schools and school leaders (Bellanca, 2010). Since classrooms are now learning labs for students to participate in 21st century skills, this work is obviously anything but straightforward. Even transformative principals cannot do this work by themselves. Teachers need to alter their classrooms and lead by example. The challenging task of changing their methodology in order to improve student engagement in the 4Cs and raise the bar while differentiating to accommodate each learner is required. To help teachers with this challenging responsibility, policymakers and administrators should provide continual professional development (Darling-Hammond & Richardson, 2018). There is a gap in the body of knowledge that specifically examines how a teacher's leadership style affects the degree of student participation in 21st-century learning. It's also important to comprehend how a teacher's leadership style and involvement in professional development activities designed to assist 21st century teaching methods are related. Finally, little research has been done on how these three crucial teaching/learning factors—teacher leadership

style, teacher professional development, and student levels of participation in 21st century learning—interact and have an impact on one another, particularly at the middle school level. This study sought to identify these relationships and fill the research gap.

Literature Review

Third industrial revolution is currently happening throughout the world. We are currently experiencing a digital revolution, according to Cataldo (2014), which is profoundly altering the globe. The educational system is the engine that will push the competitive members of this digital revolution to participate in the process. The second industrial revolution gave rise to the modern technologies that people in the 21st century take for granted, including cars, cellphones, aeroplanes, and microprocessors. The computer revolution also gave rise to computer-aided design, biogenetics, lasers, and fibre optics (Cataldo, 2014).

The focus of the classroom in the twenty-first century is the student, not the teacher. Teachers now play the role of facilitators of learning rather than lecturers. The teacher serves as a coach, guiding students while they complete tasks, and the students learn by doing. As a small taste of the actual world they will encounter after they leave the classroom, students learn to use the inquiry method and to work with others. Students no longer focus on one subject at a time. As an alternative, they operate on interdisciplinary projects that incorporate knowledge and abilities from several topics and address a number of crucial academic requirements.

Technology has dominated society in the twenty-first century (Bechina, and Kramer, 2013). The use of technology still necessitates a time commitment and, in turn, professional growth, despite being cutting edge, interesting, and a dynamic teaching instrument. Time to test out technological endeavours and ongoing assistance are additional considerations. According to Groff and Mouza (2008), there are six distinct criteria that affect how much technology teachers utilise:

1) Legislative (e.g., policy and research),
2) District/school based (administration and school/ community environment),
3) Teacher (e.g., technology skills and proficiency, perspective),
4) Technology-enhanced projects, (school culture and distance from the "norm," dependence on others external to classroom),
5) Students (experience and background, technology proficiency, attitudes/beliefs), and
6) Technology (hard drive, memory, computer system) itself.

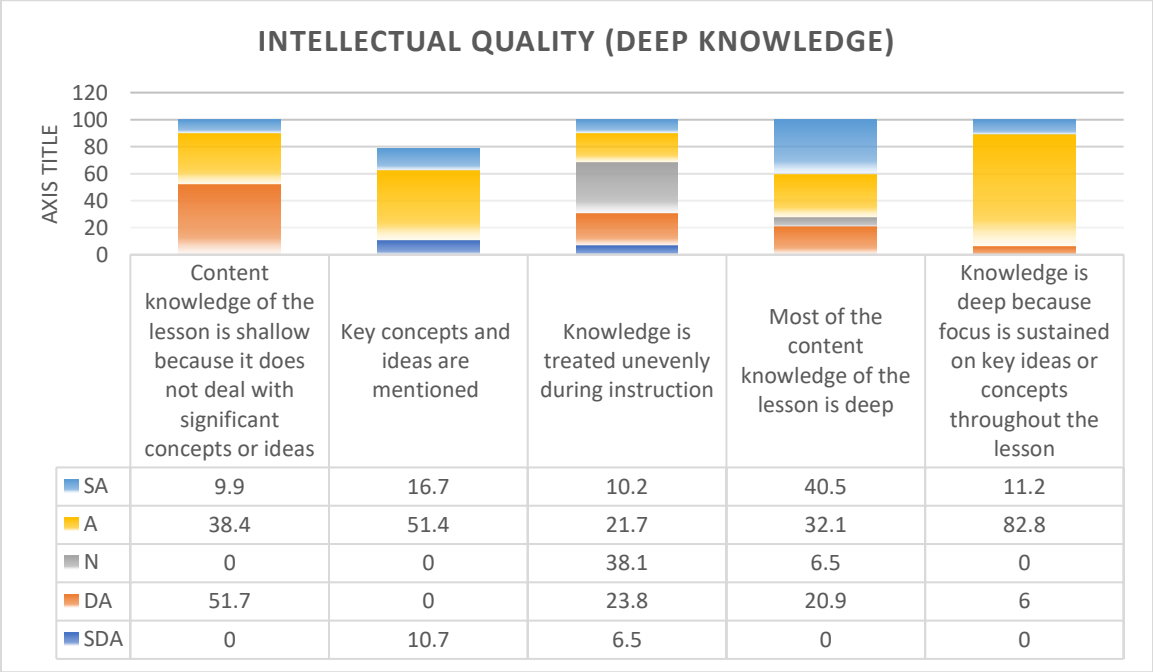
Research Methodology

This study was carried out utilising a sequential explanatory design with a mixed-methods approach. Data were collected using an explanatory sequential mixed methods research design while using the mixed methods approach. Quantitative and qualitative stages make up the two separate phases of a mixed-methods sequential explanatory design (Creswell, Vicki & Clark, 2011). Population of the study was secondary school learners/students, secondary school teachers and principals. Sample was selected randomly from all over the Pakistan. Certain percentages of secondary school students, secondary school teachers and principals were taken randomly as a sample from all over the Pakistan to get enrich data. Self-structured questionnaire and semi-structured interview was used as research tools. An adequate level

of validity assurance was provided for the research tools. Cronbach's alpha was used to examine the survey's internal consistency and reliability, and an overall reliability value of 0.83 was discovered. Personal visits were used to obtain the data. Thematic analysis was used to examine qualitative data, while quantitative data were subjected to proper statistical analysis methods using SPSS. Percentages, mean score, standard deviation, and chi-square. Thematic analysis was used to analyse the qualitative data. It is the most widely used, adaptable, and accessible method of qualitative data analysis. It is a process for methodically locating, cataloguing, and providing understanding of thematic patterns of meaning (themes) inside a data (Braun & Clarke, 2012).

Results of Quantitative Data

The questionnaire was design for students, teachers and head teachers at secondary school level in Pakistan. The focus of the questionnaire was to find out the existing quality teaching practices in the classroom at secondary school's level. Further explored gaps between the existing quality teaching practices in the classroom and demand of 21st century at Secondary Schools Level. The details are the following:



	Content knowledge of the lesson is shallow because it does not deal with significant concepts or ideas	Key concepts and ideas are mentioned	Knowledge is treated unevenly during instruction	Most of the content knowledge of the lesson is deep	Knowledge is deep because focus is sustained on key ideas or concepts throughout the lesson
SA	9.9	16.7	10.2	40.5	11.2
A	38.4	51.4	21.7	32.1	82.8
N	0	0	38.1	6.5	0
DA	51.7	0	23.8	20.9	6
SDA	0	10.7	6.5	0	0

Figure 1. Percentage of Students/Teachers/Principals regarding Intellectual Quality (Deep Knowledge) in Quality Teaching in the Twenty-First Century Classroom

Figure 1 depicts the cumulative percentage responses of secondary school teachers and students for each statement regarding Intellectual quality (deep knowledge) in quality teaching in the twenty-first century classroom. 48% respondents agreed that content knowledge of the lesson is shallow. While 52% respondents disagreed that content knowledge of the lesson is shallow. 89% respondents agreed that key concepts and ideas are mentioned. While 11% respondents disagreed that key concepts and ideas are mentioned. 31% respondents agreed that Knowledge is treated unevenly during instruction. And 38%

respondents neutral that Knowledge is treated unevenly during instruction. While 11% respondents disagreed that Knowledge is treated unevenly during instruction. 72% respondents agreed that Most of the content knowledge of the lesson is deep. And 7% respondent's neutral that most of the content knowledge of the lesson is deep. While 21% respondents disagreed that most of the content knowledge of the lesson is deep. 84% respondents agreed that key ideas or concepts throughout the lesson. While 6% respondents disagreed that key ideas or concepts throughout the lesson.

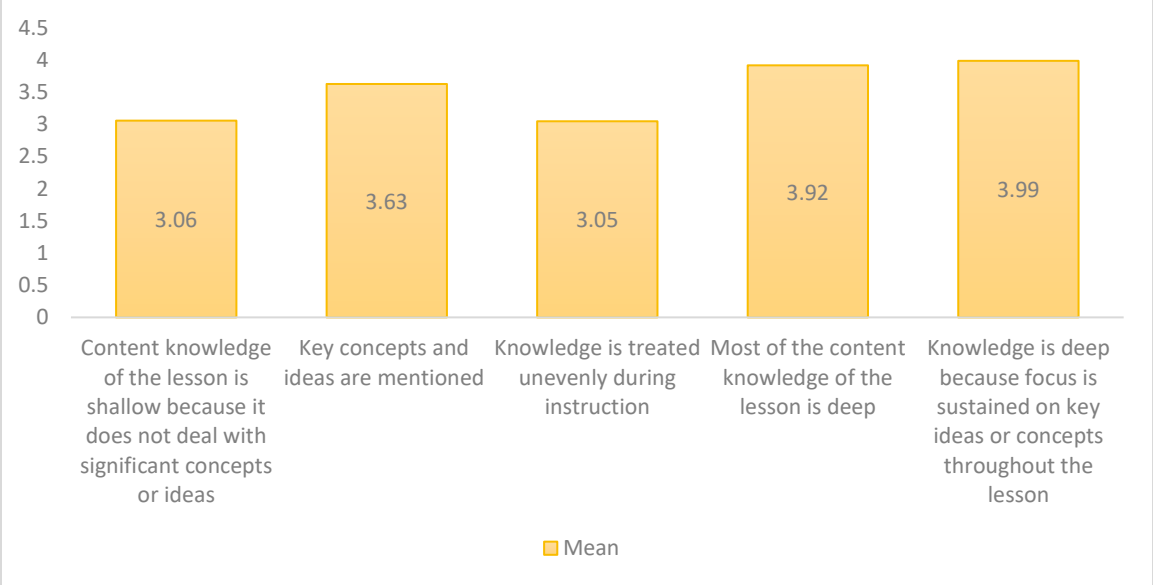


Figure 2. Comparison of Mean Scores of Students/Teachers/Principals regarding Intellectual Quality (Deep Knowledge) in Quality Teaching in the Twenty-First Century Classroom

Figure 2 depicts the Comparison of Mean Scores of Students/ Teachers/ Principals regarding intellectual quality (deep knowledge) in quality teaching in the twenty-first century classroom. This shows that highest mean value 3.99 of statement key ideas or concepts throughout the lesson and 3.93 of the statement that the content knowledge of the lesson is deep. While average mean 3.63 of the statements that key concepts and ideas are mentioned. And low mean value 3.05 of the statement that Knowledge is treated unevenly during instruction and 3.05 of the statement that the content knowledge of the lesson is shallow.

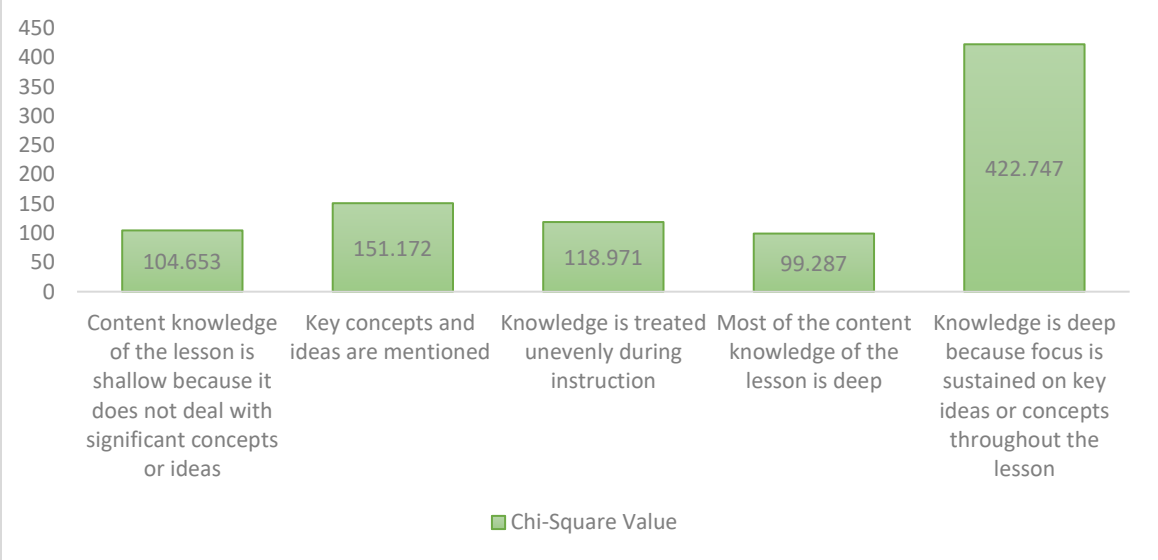


Figure 3. Chi Square values of Students/Teachers/Principals regarding Intellectual quality (deep knowledge) in quality teaching in the twenty-first century classroom

The chi-square values are presents in figure 3. It shows that secondary schoolstudents/ teachers/ principals intellectual quality (deep knowledge) in quality teaching in the twenty-first century classroom is positive for all five statement at 0.05 confidence level and 4 degree of freedom. Therefore, all 5 statements are accepted.

Results of Qualitative Data

A structured interview was conducted among 35 secondary school head teachers in Pakistan. The responses were received from 20 secondary school head teachers in Pakistan. The responses of teachers were about the followings themes:

Main-theme-1: Existing Quality Teaching Practices used by Teacher in their Classroom

R1 stated that

"*Lecture method, activity based learning, experimental techniques, observations methods and group activity methods are used by teachers in the school*".

R2 stated that

"Teachers mostly use lecture method to teach students. The also use verbal and written instructions. The teacher mostly uses white / black boards as an AV aid to make their lecture effective. They conduct classroom test in order to assess the learning of the students. Some of the teachers also involve their students in discussion. A few of the teachers use activity method; they involve their students in various activities like gardening, role playing and bring their students outside of the classrooms".

R3 stated that

"Teachers are strong in communications and engaging students in learning activities. Class rooms are not equipped with modern teaching technologies and teachers are using traditional techniques of teaching".

R4 stated that

"To maintain high quality teaching practices in the classroom, teachers use a variety of tools, including good use of whiteboards, blackboards, chalkboards, books, and charts. The use of various teaching techniques and instructional design settings for classroom management also maintains the quality of the instruction".

R5 stated that

"Group work, activity based teaching and peer discussions".

R6 stated that

"Currently our teachers are using lecture and demonstration methods in classroom. Whereas, sometimes they also use interactive method during teaching".

Main-theme-2: 21st century skills are being implemented in 21th century classrooms practices

R1 stated that

"*Yes, in some way some teachers are used 21st century class room practices in their Classrooms*".

R2 stated that

"To some extent teachers use 21st century skills in the classroom, like collaboration, creativity, critical thinking and problem solving. But they do not use them at large scale. Most of the teachers are even unaware of these 21st century skills especially the teachers do not have enough command over IT skills".

R3 stated that

"According to my opinion 21st century skills are not being implemented in classrooms practices".

R4 stated that

"Yes, we are aware that teaching tools like mobile phones, laptops, computers, the internet, educational websites, etc. are used in 21th century classrooms practices".

R5 stated that

"21st century skills are not being implemented properly in the classrooms practices".

R6 stated that

"I would say not in Pakistan at least. But yes, in the developed countries a lot work is going on to turn the classroom environment into a more conducive to learning and engaging which the 21st century demands".

Main-theme-3: Demands of 21st century Classroom Teaching

R1 stated that

"*Project based learning, digital footprint, critical thinking, innovative and continuous learning are the demands of 21st century class room teaching*".

R2 stated that

"Quality education is the core demand of the 21st century classroom teaching. Internet connection, connectivity devices and training of the teachers on modern grounds are the demands of the 21st century classroom teaching".

R3 stated that

"21st century class room demands use of ICT equipment's and active engagement of the students. The teachers must be equipped with latest knowledge and teaching techniques which can flourish the of 21st century skills in students".

R4 stated that

"Teaching in the classroom in the twenty-first century requires ICTs or resources from modern technology".
R5 stated that
"Trained teachers, teaching resources, appreciation, motivation and follow up".
R6 stated that
"21st century classroom demands a more student oriented approach of teaching. It focuses on the student friendly learning activities and promotes inclusivity and diversity".

Conclusions

1. Majority of the respondents disagreed that knowledge is deep because focus is on key ideas or concepts throughout the lesson.
2. Most of the respondents agreed that the knowledge is presented only as fact and not open to question, Whereas, majority of the respondents disagreed that the knowledge is seen as socially constructed and multiple perspectives
3. Majority of the respondents disagreed that the students demonstrate deep understanding throughout the lesson.
4. It is concluded that to maintain high quality teaching practices in the classroom, teachers use a variety of tools, including good use of whiteboards, blackboards, chalkboards, books, and charts. The use of various teaching techniques and instructional design settings for classroom management also maintains the quality of the instruction.
5. It is founded that Quality education is the core demand of the 21st century classroom teaching. Internet connection, connectivity devices and training of the teachers on modern grounds are the demands of the 21st century classroom teaching.
6. Most of the respondents agreed that 21st century class room demands use of ICT equipment's and active engagement of the students. The teachers must be equipped with latest knowledge and teaching techniques which can flourish the of 21st century skills in students.

Recommendations

The concept of teaching 21st-century skills in the classroom is still comparatively innovative, mainly in developing countries like Pakistan. So, it is important for policymakers to raise cognizance among the public and educational societies about the significance of obtaining these skills and competencies. Moreover, the matter may be tinted to senior officials in different forums, particularly during policy negotiations. To implement 21st-century skills in classrooms, the Ministry of Education may address this matter at the national level. In response to the quickly changing world-wide urgencies, it is decisive for educational institutions to develop a formal policy for incorporating 21st-century skills into the curriculum.

References

1. Archambault, L., Wetzel, K., Foulger, T., & Williams, M. (2010). Professional development 2.0: Transforming teacher education pedagogy with 21st century tools. *Journal of Digital Learning in Teacher Education, 27*(1), 4-11.
2. Bashir, F. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, *38* (4), 837-880.

3. Barron, J., Darling-Hammond, M. S., Pellegrino, J. W. (2018). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
4. Barrows, H. S., & Tamblyn, R. M. (2019). *Problem-based learning: an approach to medical education*. New York, NY: Springer.
5. Bellanca, J. A. (Ed.). (2010). *21st century skills: Rethinking how students learn*. Bloomington, IN: Solution Tree Press.
6. Barron, B. & Darling-Hammond, L. (2008). Teaching for meaningful learning: a review of Research on inquiry-based and cooperative learning. L. Darling-Hammond, B. Barron, P.D. Pearson, A.H. Schoenfeld, E.K. Stage, T.D. Zimmerman, G.N. Cervetti and J.L. Tilson (eds), *Powerful Learning: What We Know About Teaching for Understanding.* San Francisco, Calif., Jossey-Bass/John Wiley & Sons.
7. Bull, A. & Gilbert, J. (2012). Swimming Out of Our Depth: Leading Learning in 21st Century Schools. Wellington, New Zealand Council for Educational Research. ww.nzcer.org.nz/system/files/Swimming%20out%20of%20our%20 depth%20final.pdf
8. Cataldo, M. (2014). Implementing the common core state standards. *Knowledge Quest*, *42*(3), 48-51.
9. Cynthia, L, S. (2015). The Futures of Learning: What kind of Pedagogies for the 21st Century (http://unesdoc.unesco.org/images/0024/002431/243126e.pdf)
10. Darling-Hammond, L., & Richardson, N. (2009). Research review/teacher learning: What matters? *Educational Leadership*, *66*(5), 46-53.
11. Davis, W. J. (2016). A good and popular methodology that is being inappropriately applied. *Educational Forum*, *74*(1), 37-48.
12. Dede, C. (2009). *Comparing Frameworks for 21st Century Skills*. Bloomington, IN: Solution Tree Press.
13. Ellis, G. (2012). Through a new window: 21st century education. *Children's Technology & Engineering*, *20*(1), 14-17.
14. Friedman, M. (2005). "The Role of Government in Education." In *Economics and the Public Interest*, edited by R. A. Solo. Piscataway, NJ: Rutgers University Press.
15. Goe, L. (2007). The link between teacher quality and student outcomes: A research synthesis. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved from http://www.tqsource.org/link.php
16. Lead beater, C. & Wong, A. (2010). Learning from the Extremes: A White Paper. San Jose, Calif., Cisco Systems Inc. www. cisco.com/web/about/citizenship/socio-economic/docs/learning fromExtremes_WhitePaper.pdf (Accessed 24 May, 2014).
17. McLoughlin, C. & Lee, M.J.W. (2008). The three p's of pedagogy for the networked society: Personalization, participation, and productivity. *International Journal of Teaching and Learning in Higher Education,* Vol. 20, No. 1, pp. 10-27.
18. Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record, 108*(6), 1017-1054.
19. Mishra, P., & Koehler, M. J. (2008). Introducing TPACK. In American Association of Colleges for Teacher Education Committee on Innovation and Technology (Ed.), *Handbook of Technological Pedagogical Content Knowledge (TPACK) for Educators* (pp. 3-39). New York: Routledge.
20. Organization for Economic Cooperation and Development (2011). *The definition and selection of key competencies*. Paris, France: OECD.
21. Organization for Economic Cooperation and Development (2012). *The definition and selection of key competencies*. Paris, France: OECD.
22. Organization for Economic Cooperation and Development (2013). *The definition and selection of key competencies*. Paris, France: OECD.
23. Parker, A., Bush, A., & Yendol-Hoppey, D. (2016). Understanding teacher candidates' engagement

with inquiry-based professional development: A continuum of responses and needs. *The New Educator*, 1-22.

24. Pellegrino, S., & Hilton, M. (2012). Implementing the common core state standards. *Knowledge Quest*, *42*(3), 48-51.
25. Richardson, V., & Placier, P. (2001). Teacher change. In V. Richardson (Ed.), Handbook of Research on Teaching (4th Ed., pp. 905–947) Washington, DC: American Education Research Association.
26. Robinson. P. S. (2010). 21st Century Knowledge and Skills in Educator Preparation. AACTE.
27. Saavedra, A. & Opfer, V. (2012). Teaching and Learning 21st Century Skills: Lessons from the Learning Sciences. A Global Cities Education Network Report. New York, Asia Society.
28. Taylor, T. (2018). *Most likely to succeed: Preparing our kids for the innovation era.* New York, NY: Scribner.
29. Unsworth, L. (2018). Multiliteracies, E-literature and English teaching. Language and Education, 22(1), 62-75.
30. Wagner, T. (2019). *Creating innovators: The making of young people who will change the world*. New York, NY: Scribner.
31. Zhao, Y. (2009). *Catching up or leading the way: American education in the age of globalization.* Alexandria, VA: ASCD.