2019 is a year witnessing the explosion of many high-tech applications in learning and teaching with integrated multimedia technologies (virtual reality - VR, augmented reality - AR), group and team collaboration technology, class organization, class management, and school ... It is indisputable that the application of new technology generates more interest in the learning and collaboration process. However, we are seemingly fraught with intractable problems within the transformation of a VUCA world (volatility - fragility, uncertainty, complexity - ambiguity) if we rely solely on technology. Students of today’s Z generation (born around 1997 onwards) are not only more proficient with technology from birth, but also have completely different psychological characteristics and needs to be compared to the previous generation. In the 20s of the upcoming XXI century, researchers are ready a name to give birth to the generation that is about to be born? And what do we, as educators, prepare to foster contemporary generations of students? Let's take a look at some of the outstanding educational research in 2019, whether we can name a new challenge or feel the intangible challenges will suddenly come in 2020?

**Teaching and Learning: What is centered?**

Many competitive statements about the progressive and traditional vision of education have contributed to the debate on devising the most proper way to educate children for the past hundred years (Semel et al., 2016) [24]. These debates have spearheaded a vast array of successive reform cycles, such as “learner-centered,” commonly perceived as an open and radical compared to the “teacher-centered” approach. However, many those gets a different perspective that “learner-centered” and “teacher-centered” are almost a contradiction in terms as well as criticize the traditional approach because its emphasis just glorifies “the preaching process.” Thus, who or what should be centered and at the center of what?

*What are the main causative factors behind teachers’ preference for “learner-centered” approach?*

It is crucial that building a close relationship between teachers and students in the primary school stage encourages internal promotion, especially developing the psychology process of children. Wu (2019) pointed out the difference between the US and Chinese teachers. While teachers in the United States use “learner-centered” methods to involve their students in collaborative learning, teachers in China still consistently maintain their sense of distance from their students because of
something so-called “inherently high position” through the traditional preaching approach.”

Akdemir and Özçelik (2019) indicate that the subject itself is a decisive factor instead of a student’s age, gender, public, or private environment. Besides, teachers at private schools have more opportunities to attend seminars, training workshops, and even more facilities than public school teachers do not fuel teachers’ belief in “learner-centered” approaches. Most importantly, it is the teachers’ understanding of their emotions, perceptions, and students’ developmental processes that call them for action for the sake of their students’ interests and competence.

Students in learners-centered education would enjoy much more the benefits of this kind of approach than normal students

Research by Power et al. (2018) at Cardiff University (UK) in the Review of Education magazine described an essential evaluation conducted in 3 years on a learner-centered approach”[21]. Research shows that although student progress and behavior might be achieved in the contexts where the foundational principles have firmly adhered, some evidence is found to suggest that even in these contexts, children’s progress is uneven. While girls and children living in favorable settings are intended to smooth their educational path, boys and children from poor backgrounds are often considered an also-ran in that path.

Awareness and challenges of balancing "learner centered" and "teacher centered"

“Learner-centered” is often understood as participatory classroom practice activities to experience, collaborate, test, create, and lead their learning process (O’Neill and McMahon, 2005) [18]. There are many variations, definitions, and terms related to “learner-centered,” and sometimes they lead to confusion in understanding, goal setting, and implementation. In terms of pondering upon a matter that teachers should “stand on the sidelines” or should “return to the knowledge stage,” Fischer and Hänze (2019) analyzed the report from 1713 students taking 80 different courses and found that: while teacher guidance helps increase students’ awareness, interest, achievement, and competency; participatory proactive modes can lead to contradictory effects [7].

Reinforcing this thesis, Trinidad (2019) has conducted research on the gap in learners 'and teachers' awareness of "learner-centered" in the context of higher education [27]. Accordingly, the teacher's role does not just stop at leading and coaching, but as an expert and designer of knowledge works. On the one hand, students and teachers strive to create coherence within learning activities and applications that students are required to perform a variety of tasks in the classroom. On the other hand, teachers should hold the delicate balance between lectures and activities because the lecture format provides students with a supplement on the professional knowledge that cannot be formed through group activities. So, instead of being too concerned with categorizing each type of activity and thinking that the activity is teacher-centered or learner-centered, one should take the learning essence as a center and adjust one's approach to harmonize with both learners and instructors as well as attach each specific goal compatibly. To learn more about a learning-centric approach, we refer to a new book by Vlieghe and Zamojski (2019) entitled "Towards a being of teaching" (Toward an Ontology of Teaching) [28].

Matsuyama et al. (2019) have implemented a research for reducing the bias “student-centered only work with positive and proactive students” [14] Changing the context, shifting to learner-centricity can promote self-regulated learning, even for students who are already familiar with the traditional approach. Students gradually familiarize themselves with the process of building their own
portraits, reflect on themselves, and seek diverse learning strategies by always referring to their “future self-image.”

Social and Emotional Education
Research on Social and Emotional Education (Social-Emotional Learning - SEL / Social-Emotional Education - SEE) is not a new trend. CASEL (Collaborative for Academic, Social, and Emotional Learning) defined SEL from more than two decades ago. On the Google Scholar index, the number of SEL articles from 2017 to now is stable in number (2,390 articles in 2017, 2,860 articles in 2018, and 2,950 articles in 2019). However, in 2019, research will not only focus on raising awareness and promoting SEL, but there will be more specific studies relating to SEL implementation approaches as well.

SEL is the process of acquiring and practicing skills to identify and manage emotions, as well as interpersonal skills and attitudes of caring for others. For decades, studies have shown that children experience learning and have better learning outcomes in support of their families and schools. However, most studies’ attention only wanders around academic results. Sheridan et al. (2019) shift their focus for the results of social capacity, analyzing 117 families and showing that interventions from home and the school have a significant positive impact on social, behavioral capacity, and student mental health [25]. DePaoli et al. (2017) surveyed 884 school presidents across the United States and summarized the results in the “Ready to Lead” report for CASEL [5]. According to their study, 99% of principals believe that SEL can be taught in schools; 95% are committed to developing the social and emotional capacity of students; and 98% believe that regardless of age, ethnicity or foundation, students will all benefit from SEL. Also, 83% believe that SEL can improve the environment and relationships in the school, and 78% believe that SEL will have a lasting impact and outline a wealthy background for students in the future. Thus, we can consider SEL as one of the latest approaches to reform schools.

However, SEL might seem to be full of promise but also run the danger in the way we define and practice it (Hamilton and Schawartz, 2019) [8]. For example, no matter how technically advanced the program improvement measures, teachers' emotional stress and exhaustion will still have adverse effects on children such as anger and aggression, anxiety and self-regulation, or diminishing social capacity (Jeon et al., 2019) [11].

Since 1976, Professor Weissberg - one of the founders of CASEL has been taking the time to explore how schools, families, and communities can work together to promote and optimize development opportunities for young people. In a post of his perspective published in the journal APS (Psychological Science Association), Weissberg (2019) highlighted challenges for implementing SEL, including: (i) the overriding ambition in CASEL goals for both preschool and high school; from schools to counties, states and federal; from family to community; (ii) adapt to the increasing needs of SEL at national and inter-national level (How should SEL's main competencies be defined? How can SEL spread and maintain its good quality?) [29]. Weissberg emphasized the role of building up community relationships to promote and develop SEL, rather than just at school. Also, he suggested that SEL research groups diversify their background, add people who are willing to challenge themselves, which partly clear the way for the most impactful results.
For systematic use of SEL in schools, we can refer to some new documents such as Social and Emotional Learning Handbook - Ideas for incorporating SEL activities into the classroom study (Dougan, 2019) [6]; the title "Deploying Social and Emotional Learning in the Classroom and School Leadership" (Brackett et al., 2019) [3]. McShane (2019) also consider the similarity between SEL and the Common Core standard and offer those tending to disseminate SEL effectively four advice: (i) It is essential that determining the slightest inclination for mentioning SEL before persuading stakeholders that it should be prioritized; (ii) Coordination with local authorities and educational institutions also is needed to develop resources to implement SEL; (iii) We cannot help noticing and alerting to all the elements that try to participate in SEL when it becomes popular as a trend; and (iv) SEL advocates need to be cautious about how SEL is positioned in the community [15].

**Equality and equity**

Equality and equity are not merely fixed social states or indicators. It is also a shift between quantitative gaps (in terms of resources, finance, etc.) and qualitative gaps (beliefs, opportunities, etc.) (Hoang, 2019) [9]. Regardless of the education level, the inequality of resources is widely recognized across the globe, from preschool, secondary education to vocational and tertiary education (Holm et al., 2019) [10].

In the past, Individual Learning Programs (IEP) were only known to students with special needs, so they had to keep up with their progress compared to other peers (Congress, 1973) [4]. Today, with the help of technology, differentiating learning experiences is more natural and more prominent. While the approach to teaching differentiation and individualization is teacher-centered to provide differentiated instruction for each group of students or individuals, personalization encourages learners to self-direct the learning process of their results. The trend of moving from knowledge-based learning to problem-based learning, project-based learning, not only provides opportunities for students to build competencies, but also presents challenges with new gaps of inequality.

For the last few years, there has been considerable research on developing countries that seems disquieting over equality, mass issues such as gender, poverty, family background, living area, and universal learning behaviors, etc. (North and Longlands, 2019) [17]. Some universal studies include: the impact of high school reading habits on learning outcomes in science subjects (Le et al., 2019) [13]; different resource allocations for children are affected by their birth order (Tran et al., 2019) [26].

For countries that develop and attract many immigrants, equity issues revolve around the gap between majority and minority groups. In addition to socioeconomic indicators, Saleh (2019) analyzes differences of equity across ethnic and linguistic perspectives, between immigrants and indigenous peoples, and among religious groups [23]. Redding (2019) recognizes the favorable trend of black and Latino teachers for students of the same ethnicity in the process of commenting, grading in class, grading examinations, resulting in positive overall behavioral aspects of these students [22]. Another perspective on the inequality between different target groups is also reflected by the gap between gifted and special needs students in the same school, as well as outside the school. (Peters et al., 2019; Young, 2019) [19], [31].
Besides the different perspectives between groups with different characteristics, the symmetry of time is also a matter of concern. Pearman (2019) studies that student achievement might be exerted negligible impacts under the urbanization and middle-class processes, especially for children living in peri-urban areas in the process of mobility. [20]. That we may not realize the effects of neighborhood change results from, we also automatically assume that the effects of urbanization children are experiencing are natural.

Equity and equality studies often establish perspectives that surround academic achievement as an essential variable. To complement the view towards collective achievement, we can refer to several studies that consider environmental factors and opportunities as a focus. The book "Multicultural Education: Problems and Perspectives" by Banks and Banks (2019) provides us with an interesting perspective: Differentiating opportunities for boys and girls to enhance their Equity in gender, as well as a safe environment for LGBTQ students (LGBTQ - lesbian, gay, bisexual, transgender, questioning) [2].

Murray et al. (2019) highlight the role of the Parent-Teacher Association (PTA) in creating new opportunities, eliminating inequality, and inequity in education [16]. However, the participation of parents and teachers of these associations is declining, especially for newly opened schools, the establishment of this association is challenging. The study also shows that the success of Parent-Teacher associations is not due to its member's economic factors but by its association with non-profit organizations in the community.

Conclusion
There is an undeniable fact that a change of mind is also as complicated as a change of heart. Repudiating our intimate road to move to another new (or temporary) perspective means we also accept a process both exciting and challenging. Innovation or reform is back and forth term to schools and education systems around the world because Education never would like to cease our agony in making it more useful for both beneficiaries and those who do Education. The system of two hidden equations, "quantity" and "quality," still challenges researchers, policymakers, pedagogic practitioners themselves, or even parents. Year by year, new studies may contribute to the continuation of old studies, may negate part or all of the old conclusions, but all will help us to diversify our perspectives more and strengthen our beliefs on the path we have chosen. We wish researchers, practitioners, and all those who love for Education a new year of exciting experiences.
References


