



Skill Set required for 21st Century Student: Case study of University Level Student

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Abstract

The swift and extraordinary change in the world has left people with no surprise. Countries around the globe are working hard to maintain relevancy by reshaping themselves, and for doing so, they are adopting such policies that help them keep up with this ever-evolving change of the VUCA (volatile, uncertain, complex, and ambiguous) world. It is essential to consider the implications this has for the education system. This new age of information demands that the education system evolve accordingly and face severe disruption. Hence, the critical skills required by 21st-century students to thrive in the professional world must be identified. The education system needs to focus on inculcating these skills into the students effectively. Researchers have accredited that, engaging students in the learning and innovating process with the help of enhancing creative and critical thinking has become an integral part (Trilling & Fadel, 2009, p.50). This research aims to aid this process by identifying the top five (05) skills required by 21st-century students. To evaluate those five skills, this research has incorporated a diversified sample size, which has included professional students (Business Graduates, Engineers, Doctors, and others) and the affiliated faculty to these areas of study for achieving the set target. The findings of the study have summarised that for preparation for the 21st century, today's students need more than just education. They are keener to learn skills that can help cater to the requirement of the coming time. These high skills not only help them during their studies, but they will also become lifelong partners in their success both academically and professionally. In coming times, those who recognize high in-demand skills are meant to serve as a possible benchmark for our education system to reconfigure its broader policy framework and delivery mechanism. Additionally, students can benefit from these skills to prioritize the required skill set to increase their employability. The study's finding indicates that it has become inevitable for the education system of Pakistan to reorient, reorganize, and restructure the overall education system to meet the needs and requirements of the 21st century needs and demands.

Keywords: Contemporary education, 21st-century skills, professional World, VUCA, professional development.



Introduction

The fourth industrial revolution has disordered every aspect of our lives, including the skills required by individuals to enter the workforce in the 21st century. The literature says that 21st-century skills are significant for the students, as these skills help students think critically and guide them in developing interpersonal and intrapersonal skills (Arsad et al. 2011). The demands on the work force are also evolving quickly with the rest of the globe. Today's educational institutions must not only provide information to students, but also help them become prepared for the problems of the future. Policymakers must seek out cutting-edge technology to provide students with the most up-to-date skills to compete in a fiercely competitive labour market as skills diversify at an unprecedented rate.

E-learning has caused a paradigm change in education in today's fiercely competitive society. Even at the classroom level, students are increasingly exposed to new learning opportunities. Students in both the school and university settings now need to have a basic understanding of digital literacy. Learning is now not limited within the boundaries of educational institutions; instead, it has shifted its paradigm towards e- learning. We can represent e-learning with a diversified definition (Garisson and Anderson 2003).

The basic ideology of e-learning or distance learning is associated with the idea that one can get an education away from the educational institute and still get its essence. The presence of internationalisation and Globalisation in the 21st century have raised the demand of the current time. Today's time needs more knowledge and an information-based economy that help to compete with the creative and innovative workforce, which ultimately leads towards the higher investment in education, training, research and development (Norasmah et al. 2012; Norasmah et al. 2011; Anantha, 2012; Sarjit, 2007).

Information and Communication Technology (ICT) in the 21st century has achieved new hight and it has fastened the worldwide competition (Pheeraphan, N., 2013). It is perceptible now that while looking for competent candidates, organisations are also looking for people who can quickly adapt and contribute to organisations, products, and processes and have skills that can keep them learning and adjusting to ongoing change (Kay, 2010).

E-learning has grown in popularity as a result of its capacity to let students learn and swiftly adapt to any setting. It makes use of technology, including the internet, multimedia, and



networking, to deliver educational programmes to students who are absent from their institutions or are doing distance learning courses. Online learning, video conferencing, CD-ROMs, and web-based training are just a few examples of the many tools and applications that fall under the umbrella of e-learning. It offers interactive images, texts, sound, and movies to improve learning in the classroom. Students may learn at any time and from any location if they have simple access to the internet and a computer. Ultimately, e-learning has transformed education by opening up instruction and training to all people.

It also helps teachers improve the quality needed for higher institutions to maintain a competitive advantage in the rapidly diversifying marketplace for students (Samsuri et al., 2014). This process helps provide the education programmes to more students at a lower cost, concluding that the availability of e-learning can enhance the quality of both teaching and learning (Peled, 2000 in Hafizah and Kamil, 2009).

The ability to speak many languages is a highly valued soft talent in the labour market of the twenty-first century. Multilingualism is a talent that will always be in demand since it is necessary for competing and prospering in the global society.

The importance of learning multiple languages (especially international languages) is undeniable. Meanwhile, people with all such skills are primarily short in supply, though the need is always there for the organisation (National Research Council, 2012; Quicios, 2018). There are many studies available that have emphasised the significance of learning multiple languages and highlight its importance. The latest research suggests high demand for employees with linguistic proficiency and cultural competence in business, human services, government and health for translation and interpretation and travel and tourism (Damari et al., 2018; Looney & Lusin, 2018).

Success in the workplace of the twenty-first century depends on having strong problem-solving, communication, and technological skills. Traditional schooling may not fully equip people for these demands. Companies are looking for someone with a mix of digital and technological abilities. Skills that are highly appreciated include collaboration, cooperation, cross-cultural awareness, and flexibility. To stay up with the rapid rate of change in the world, one needs entrepreneurial and proactive problem-solving abilities. It can then be said that making sure to deliver such skills is not the sole responsibility of either education system,



work or commerce, but it is somewhat interdependent on creating a relationship between educators and the forces of work and commerce (Geisinger, K. F., 2016).

The education system must be in line with students' top five abilities for critical thinking and problem-solving in the actual world. These talents cannot be developed using the conventional method, hence a refresh is necessary. However, one of the challenges of 21st century is itself the quality of the education, as people who have the skills and courage to change the education system into a more innovative way are most of the time highly regarded by the organisation and later on becomes an asset, who not only contribute in the development of the education but in the economy as well (Yousof, 2008).

Talking about technology, we cannot ignore the importance of science. Different thinker gave their own perception about science. It is said that science is a combination of: 1) a body of knowledge, 2) a way of thinking 3) and how to investigate the universe (Carin & Sund "Teaching science through discovery". Columbus: Merrill Publishing company 1985, pp 212). Our outdated educational system discourages science students from learning. To stay up with daily developments, we need to redesign the learning processes. We cannot confine ourselves to 200-year-old teaching techniques given the fresh discoveries being made every day. The moment has come for education officials to act.

According to a research by Spectators Index, Pakistan ranks 94th in the world for offering low-quality education, considerably below neighbours like India (ranked 34th) and even Rwanda (ranked 46th). Authorities need to address this issue seriously.

Many countries are earning a tremendous amount of foreign investment by just providing a good quality of education. Singapore and United Kingdom are examples of it. Hundreds and thousands of students from all around the world go there for high education, which in return generate a positive economic activity for these counties and earn them a foreign investment.

Pandemic and provision of education

Around the globe, the COVID-19 epidemic prompted the closure of educational facilities, posing hitherto unheard-of difficulties for students, instructors, and parents. Similar challenges were confronted by wealthy nations like the United States and England as well as impoverished nations. Yet, because of a lack of infrastructure and educational access in our emerging economy, the situation is far worse. To stop the virus's spread, the administration opted to keep all schools closed



and convert to online instruction. Online learning was easily accepted by private educational institutions, while public schools and universities found it difficult owing to a lack of internet connection and resources. In order to assist school-age children, the National Television of Pakistan (PTV) started airing essential themes on a TV channel.

The epidemic has to light the value of media in teaching and raising student awareness. Unfortunately, because of inadequate administration and students who lacked the essential abilities, the shift to online learning has been difficult. This study attempts to look at the fundamental abilities needed for online learning and how important they are for learners at different educational levels. It will assess how skills development is a dynamic process and how important it is for students to build future abilities in order to compete worldwide. In this study, the terms "competencies" and "skills" are interchangeable yet have different meanings. For this research, competency signifies the skills and offers the meaning of beyond skills or knowledge. The capability to fulfil multifaceted demands by employers with psychological resources keeps the same attitude, particularly for this context. For the sake of understanding, let us take an example, "a capability to communicate efficiently is the competence which may give an idea for any individual's knowledge related to a practical understanding of IT skill, language and the correct attitude towards the people with one is communicating" (OECD, 2003, p.4). It was envisioned in the European Commission's Cedefop glossary (Cedefop, 2014) that skill only highlights the job and conclude its solution. On the other hand, there is a broader meaning regarding competency, which is not only seen as a capacity to pinpoint the learning upshots correctly, and it is restricted to competency encompasses much more than simply abilities. Pakistan is having trouble giving kids access to the most recent technologies, particularly those who live in remote regions. To address this problem, the ministry of education has started a programme to broadcast instructional material via national television. The Allama Iqbal Open University has also worked to make education available and free to everyone. Students need to be aware of the abilities needed for their future despite attempts to encourage impoverished students through scholarships and the country's growing number of colleges.



Figure 1:

21st century skills" grouped into three broad domains (National Research Council, July 2012, p. 2



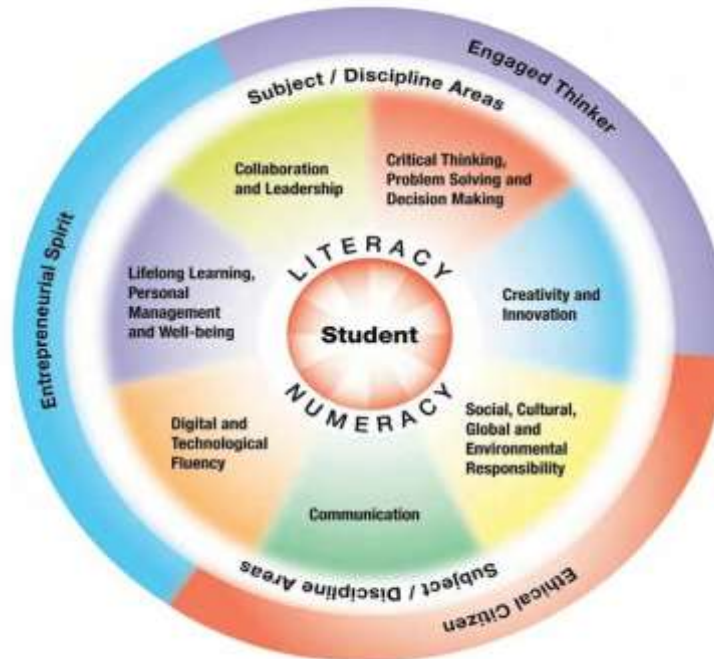
According to research on knowledge and skills competences, several countries have come to understand the necessity of adapting to shifting learning patterns and offering pertinent skills. The last two years have underlined the significance of skills necessary for university students to compete in the VUCA world. The last two decades have brought substantial changes to learning and experience.

It was a long time ago when people used to barter (material exchange with the material), and then gold, silver copper was considered a trade currency is moving on paper notes before the plastic currency was introduced two decades ago. People were whispering that this would not last, but it is easy for a person to swap a card to buy anything rather than pay hard cash if the world has witnessed. This thing has not ended up yet, and the next era of digital currency is coming where the main thing will be changed, and likewise, students and teachers have to think of their competence and skills to upgrade to be in the flow of the world.



Figure 2

Alberta's "Framework for Student Learning" (Alberta Education, 2011, p. 2)



The same is the case with Artificial intelligence. The new era of AI is very much here, where manhandled robots are replacing humans; robots are substituting waiters in the restaurant's recruitment which was mainly human dependent, now are utilising the Artificial Intelligence tools to judge and recruit the right candidate. Today's students have to compete with the challenges of Artificial Intelligence and the digital economy in the 21st century. Those aiming to enter the workforce must embody the skills required to make them indispensable to their organisations. This study shed light on some of the most required skills that any student must prerequisite to meet the needs of the coming era. The list is quite long, so we have tried to figure out and elaborate on only a few of them. Among all such crucial skills, creativity, problem-solving, and motivation are a few of the most relevant topics to our concern.

Significance

The significance of this study will be diverse. By identifying the rising demand of today's education system, the student can work on their abilities and competencies to meet the need and demands of the 21st century globally and systematically enhance the skill set of students. It simultaneously helps teachers to transform their way of transferring their knowledge to their



students, in a way which in the long run will enable them to compete not only domestically in job market, but it also empowers them to compete internally as well. The study will guide policymakers, educationists, and students to ensure the skills honed are following the demands of the VUCA world.

The rationale of the research

The professional demands of the current era are somewhat different from the past. To keep the education system up to date and efficient, we need to look into the current era's requirements. The next era will be Artificial Intelligence and Digital Economy; therefore, current students who will be future professionals can be unsuccessful if the demands are not met. It is the most needed thing of this time.

Objectives of the Research

The main objectives of this research are as follows:

1. Establish whether the skills required by 21st-century students are different from the past.
2. Identify the top five (5) skills required by 21st-century students.

Establish whether we need to revamp our instructing methodology to inculcate the top five (5) skills.

Our study evaluated some key findings with the objectives mentioned above, guiding the policymakers while designing the curriculum. These findings are not limited to the class-based knowledge, but it has opened a new avenue for the policymakers to reorient the education system. Our education system is still following the Rote learning methods, which involve memorizing from the syllabus. The findings of our survey-based analysis have revealed that today's students are now eager to learn more about creating thinking and problem-solving skills. The education system has to re-arrange the methods of assessments to evaluate the students' capabilities, which in the long run, will contribute to both the academic and personal growth of individuals. With these skills in hand, the future generation of our country will be able to compete in the domestic job market, but they will be skilled enough to go to an international platform and prove themselves internationally.



Literature Review

Laal et al. (2012) explain the new trends of the 21st century by focusing on community collaboration in every aspect of life, be it learning or the latest technology. The study enforces the importance of the rising demand of working together to evaluate the problems of critical concern. It was highlighted in the study that working together in a collaborative setting helps individuals to learn better, which through the point of view of philosophy is a communication process of personal lifestyle, where every individual is responsible for their actions. Further, it also helps them to contribute to society with their peers.

Pheeraphan, N. (2013) focuses on enhancing 21st-century learning skills for Thai higher education by implementing the ICT in the classroom and highlighting practical skills such as communication, collaboration, media literacy, and information literacy and ICT literacy by focusing on a student-centred approach. Moreover, the study integrates ICT, including dynamic content presentation, information access, creation and sharing reflection and interaction. With the help of seven educational technology experts, the findings conclude that the integration is appropriate; it was further implemented into the teaching and learning process throughout the course to study the effect. The findings conclude that the Inclusion of ICT in the classroom could enhance the 21st-century learning skills at both graduate and undergraduate levels.

Khoiri, et.al. (2021) focuses on evaluating the 4Cs, i.e. creativity, collaboration, critical thinking and communication and its demand in 21st Century skills. The study used different methods, including quantitative research, by collecting data from questionnaires, tests, observations and documentation. The findings were based on the t-test analysis results and summarise that there is no difference among the 4Cs, but one thing to notice was that the appearance of collaboration among students of rural areas was higher than urban areas, which seconds the idea that the surrounding environment also affects the learning pattern.

Dyjur, et.al. (2015) worked on the infographic's assignment in Master's level course, developed to improve the skills of 21st Century in students with developing the technical skills required by students to face the challenge of a new era. The response from students was overwhelming, as one of the students enrolled in the course stated that the challenges



they face during this learning experience were valuable. It had inculcated the ability to think critically and convey the message visually by strengthening visual literacy skills.

Karatas, et al. (2020) focuses on one of the most important and trending skills of the 21st century. The analysis shows that the results show a significant relationship between skills of 21st Century and SDL. It was concluded in the study that the presence of SDL skills in students in the extraordinary ability academic arena does not demonstrate the 21st-century skills, while on the other hand, SDL skills of students in other academic fields sturdily can forecast the 21st-century skills. The study concludes that as the SDL skill increases the basis of academic fields of individuals, the skills of 21st Century will increase too.

Naidoo, J. (2021) evaluate the rapidly changing technology and emphasis the importance of technology adaptation in these changing time by professional associated to education in the 21st century. The study discussed the importance of the latest technology and considered it a Global concern because it is essential to transform the education system to meet the need for the Forth industrial revolution.

Middleton, et.al. (2011) emphasises the importance of regional collaboration of universities and a school system with other educational organisations and focus on the idea that it is possible to reshape the teacher education from grass root level to meet the education challenges of the 21st century. The study evaluates the presence of new approaches to educate teachers and enhance teacher-leader coordination. Moreover, this approach also addressed the interconnection among the social and economic issues of the region and evaluated the essential theorists on change in an educational organisation with primary data.

Watson, et.al. (2011) sees another perspective of learning that is Online learning, especially in the context of the 21st-century approach of education. The study also highlighted that online education facilitates the student is not available for those residing in rural areas of the region. As the study was performed in 2011, the idea of online education was relatively new, so the whole study represents that time of situation. The study report only 1 to 2% of the student engaged in online education at that time, however, this number is increasing and will further rise in future.

Johnson, et al. (2011) presented a summary of the rising need and increasing challenges of higher education and teacher preparation by focusing on the much-needed changes based on



research for the educational leader among leading educational organisations and partnership of 21st-century skills. The idea of higher qualifications was redefined in the study. Moreover, another critical factor was emphasised to address, which was that the policy changes required for preparing the teachers were discussed.

Cox, et.al. (2019) work on the flow theory of Csikszentmihalyi's (1996) to understand the rising apprehension about the detachment of students and the role of education for providing the help to navigate with the constant change of skill requirements to meet the 21st century time by employing the mixed-methods specifically for a project of Spanish language and evaluate the optimal engagement duration during that course. Results of the study divulge that real-world and authentic jobs require the students to use the skills of the 21st century, which engage them to learn effectively and help them engage in cognitive and emotional development.

Cevik, et.al. (2019) developed a 21st-century multidimensional skill scale for the age group from 15 to 25 years and researched it by incorporating the sample size of 660 high school, associate degree and undergraduate students. The study took factor analysis to explain the findings of the study.

Fong, et al. (2014) discusses the presence of internationalisation and Globalisation as a twin force that has created a critical demand for resilient graduates who will contest globally.

The study addresses the institutions of higher learning (IHL) of Malaysia and sheds light on the efforts they are constantly making to produce graduates who will have the 21st-century skills by enhancing the knowledge-based society. For doing that, the author took an exploratory study by taking the postgraduates from both public and private universities in The data collection source was semi-structured interviews and questionnaires. The study reveals that individuals with ICT skills can articulate success in collaborating but lag in communication skills creative and creative thinking. The study also discovers that the academic staff belonging to tertiary institutions were a little behind in effectively accessing the social media application, and their perception about IHL in terms of providing such skills was not good.

Pheeraphan N. (2013) studied media literacy and information literacy and investigated the consequences of integrating the information and communication technology (ICT) in the classroom for developed 21st century learning skills by including collaboration and



communication. Results show that the integration was appropriated. It was concluded in the findings of the study that integration of ICT in the classroom that 21st helps to enhance the 21st-century learning skills are equally crucial for both graduate and undergraduate students. Samsuri, et al. (2014), argued that the internet is now the one tool that is being used all across the globe for research and education purposes. Due to this, society is facilitated to get access to information of the world quickly and instantly. This access has made the mode of communication easy and instant. It was documented in the study that this internet access is feasible to get from anywhere, be it workplace or school, restaurants or airplanes, and it is even available on the sea sides. The availability of e-learning has made the educational programmes to deliver the lectures through the this medium.

Geisinger, K. F. (2016) performed and study on the importance of 21st-century skill with most wanted issue to discuss for the determination of assessment of the educational measurement in previous decade. The study also highlighted that the articles in focus were among those who were particularly concentrating on the development of the cognitive skills required for the new century. The study concludes that for the needs of this century, the education system that has a clear focus on the memory and routine problem-solving conversation and the problems on its way should be resolved for the better and upgraded education system and for the educational world.

Tari, et al. (2019, June), in their study explains the importance of contextual teaching skills, which requires a learning method. Further, this method also helps students to gain the practical skills of critical thinking by developing CTL with the help of research. Findings of the study conclude that the CTL is the way, which has the component that consequently develops critical thinking and practical skills among students.

Iñiguez-Berrozpe, et al. (2020) in a study adding the information that personal development, social inculcating such skills is significant not just for children but also equally important for adults to reduce the chances of social and labour exclusion.

Heang, et al. (2019) the study found that the students of Administration/ Human Resource jobs wanted IT skills, English language fluency, Multi- lingual, communication skills, and presentation skills. In the end, for the students of Sales/marketing students, the skills demanded the most were listening skills, IT skills, communication skills, English proficiency,



and the ability to give a presentation. This concludes that soft skills are more in demand and are more desirable than the hard skills for employers while at the time of hiring.

Afifah, et al. (2019) in their study shows a significant difference between the before and after finding in metacognitive skills. Thus, it concluded that metacognitive skills were improved by implementing the guided inquiry learning model based on blended learning.

In their research, Jamal, et al. (2020) finding of the study confirms the robustness of the Chemistry Creativity Test. Further test was performed on SPSS software to check the reliability, it was shown that the alfa Cronbach 0.700 after deleting one item. As the implication of the study, it suggested that it can provide the correctness and consistency of the instrument.

Kanyılmaz, et al. (2020) study's findings highlight that the teacher of class 3 grade thought aware about this procedure, but her practice did not reflect the same during the class. The teacher of 4th grade said in an interview that she/he believes in paying attention to learning by doing and provide video, and visual materials necessary for the topic during the lecture to build the thinking and analytical skills. It was according the interviewed teacher that she/he believe in student-teacher interaction. The study then compares the analysis and concludes that these practices will contribute to students' development and analytical thinking skill.

Kurniawan, et al. (2020) also mentioned in the findings that those procedures that the practices which cause direct learning model, make the students less active and the level of their enthusiasm also reduces hence, the process of jigsaw and STAD and are significantly essential factors for HOTS in contract to direct learning models.

Nurjanah, W. (2020) concludes that with these skills in hand, the students of the coming generation will be equipped to think critically about their environment and be able to decide on the light of these skills to brighten up the future path of their coming generations.

Ilić, et al. (2017) w specifically focuses on the importance of ICT for art teachers and how they can get benefit from it. The study concludes that the presence of ICT has made learning art for the students further easier as they can now have the access of world-class art-related libraries and museums from the comfort of their homes. The students have more access to these materials which inspires and motivate them to get the artistic inspiration in a better way.



Hypothesis:

1. The current academic situation in Pakistan is not optimum to develop skills or potential in students.
2. The scalable and sustainable model of professional development will be suggested that produce skills required by 21st-century students enabling them to meet the demand of the professional world.
3. A competitive environment will also increase skills required by 21st-century students enabling them the demand of the professional world.

Counter Hypothesis:

1. The current system is sufficient to establish skilful academics
2. The model is not needed to improve academic profiles
3. The environment does not play any role in professional development.

Research Question:

1. Do the current academic system has failed to develop the required skills?
2. Did anybody else do this kind of work before?
3. Your models would be how effective?
4. What are the expectations of the success of such academic models?
5. Why do people leave the current environment and accept the new one?

Methodology

It was decided at the time of making this study possible that the sole choice criterion for the sample was conceptually dependent on the relevancy of each individual to the research topic. The questionnaire was then designed to presume to be information on most of the skills required to affect the students. The sample size selection was also based on the same principle, that the most relevant individual will be incorporated in the study. This study considers its sample size, based on three basic factors, which were interconnected to the core of the analysis. The first and for most important factor is that the respondent must be university level student. Secondly, respondent must have an interest and basic knowledge about his



educational requirement in today's competitive educational environment globally. Finally, the respondent's studies (which he/she is enrolled) are in line with winning a job in the industry.

With a limitation of time, this study took the cluster sampling technique to incorporate dispersed geographical information. It is considered that the method of cluster sampling is one of the best options to be utilised for this study, due to the fact that the sample selection of both public and private sector educational institutions was dispersed on a geographical level. Moreover, doing such type of sampling will cost a lot to the expenses of the study. In the cluster sampling method, the respondents were divided into groups or clusters to be selected area-wise. This procedure's significance may be understood because the possibility of bias in selected samples is countered to a significant level through adopting these procedures.

Table 1

Does our contemporary education system aligned with the demands of 21st century skill set?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	50	25.5	25.5	25.5
No	146	74.5	74.5	100.0
Total	196	100.0	100.0	

As I have done research from both public and private university students and students responded in both ways gives an idea that one reason might be that people who are “x” type are doer and they are comfortable in following rather than thinking to come up with anything new. X type people wants to be in comfort zone and are good at following. If we match this scenario we can analyze that contemporary system is much related to memorizing and it is easier as for such a long time we are aligned with this mentality that the same thing will be repeated every year with a limited change. Whereas Type Y people are aggressive and accept change easily. Type Y people are more progressive and active and we can say that they are opposite to Type X people. Little direction can work for Type sY people. If we match these characteristics with the data and analyze than we can easily say that it is getting obvious that current system will not work for longer period of time and many jobs in the recent past are



vanished and many are going to be vanished in near future because of technological advancement. To compete with the world our education should be equipped with new research based knowledge content. Also we can say that understanding of acquiring new skills are getting common and realization is being addressed in student. Data it evident that a large percent of student is making up the mind and are ready to acquire new skills that would be beneficial for them to get them selves adjust to the job market easily.

What Male and Female from Private and Public University Respond to the question

Table 2
Does Our contemporary educational system aligned with the needs?

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	123	62.8	62.8	62.8
Female	73	37.2	37.2	100.0
Total	196	100.0	100.0	

We sought to get responses from boys and girls and we got. It is evident that we have a patriarchal society. Usually we have male responsible for bread earning in our society also for all the tough physical works. Ceremonial head in our society is male and thus all such decision are associated with male.

Though we have equal opportunity in getting education but again men has a financial responsibility for running his house holds thus he focuses and get the education to fulfill his basic need.

Female if didn't get the education completed or discontinue for any reason would not face consequences as of men. So in most of the cases responsibility of feeding family is of men and thus men have to get education for better earning.

We will have a different responses and opinion and all will complement each other as to what skills will be necessary for getting equipped for 21st century. We will be having interesting insight about girls and boys what they feel which skill set is necessary.



Also responding boys and girls will be from both public and private university it will be interesting study to find out which skill is most important to a boy and from public university, respondent is boy and from private university. Like wise if respondent is a girl and from public university which skills she thinks is most important and if respondent is a girl and from private university what she thinks which skill is most important.

Table 2

Students from both type of institute respond to the Question Does our contemporary education system aligned with the needs of the Future?

	Frequency	Percent	Valid Percent	Cumulative Percent
Private	91	46.4	46.4	46.4
Private, Public	15	7.7	7.7	54.1
Public	90	45.9	45.9	100.0
Total	196	100.0	100.0	

We have gathered responses from both Public Universities and Private Universities, almost both are of equal number. Reason for getting the responses from both sector universities is because usually low income people opt for Public University as they are cheaper and those with the high income they sent their kids to Private University. Other reason for getting the data from Public and Private University is because Public University are Old fashion University and Private University uses latest methodology for teaching. It will help when students will be ask for skills, might we will get different responses and it will help our research to get on to point that skills for public and private university will be different. It is a good sign for analysis that we got the equal amount of data from both sector universities it will help in analyzing things with different aspects. Like it we talk about resources we have ample resources in Private sector universities as there is competition within their sector. All universities of private sectors are now categorized or we can say that we have tier 1, tier 2 and tier 3 universities. Those with the state of the art facilities with all foreign PhD's there is cost is above all other private sector university and they produce high end human resources which are need of the job market.



Government universities have discipline mostly addressing the masses and imparting basic or core knowledge to society. Like very few Private universities have the specialization or department of Urdu, English, Persian, General History, Mathematics, Physics, Applied Physics, Botany, Zoology rather they have those discipline by which one can easily get the job.

Almost all private university focuses on applied disciplines which are market needs like Computer Sciences are the most hot discipline from past 15 years or so and it is still evolving and most job present in the international markets are related to this discipline.

Collaboration

Within collaborative learning, students come together as groups of two or more individuals and try to understand a common learning concept or complete a task together. They are expected to utilize one another's expertise, resources and skills to complete the given task.

Responsibilities and failures are jointly owned. Tasks are divided and they work independently on the work they have been assigned within the group and come together to evaluate and give input on one another's work to improve the output holistically.

Students' mental health and welling being play a crucial part in their learning. One of the most significant effects of the COVID-19 pandemic has been a sense of loneliness and isolation due to quarantine. Students and teachers alike have struggled with the isolation of distance learning. We know for a fact that the interaction that students get with their peers and teachers at school is just as important for their development as their academics.

Whether they are being taught in person or online, it is important to stress collaboration to overcome the feeling of isolation that students are struggling with. The impact of distance learning also includes a lack of teamwork and students need to hone their collaborative skills using new tools that incorporate more tech and techniques to work together without having to interact in person. The worlds of studying and working have changed and hence, so have the ways in which students learn to collaborate.

Collaborative learning has to be included to help bolster higher-level thinking skills in students and improve their confidence and self-esteem as well. Group projects are an excellent tool that can maximize educational experience by demonstrating the material, while improving social and interpersonal skills. Students learn how to work with various types of



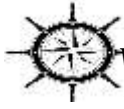
learners and develop their leadership skills. Within a classroom ecosystem, a student with a question can first approach their peers before going to teachers. This is not an attempt to exclude teachers from the learning process but to encourage students to resort to their own collective wisdom as a community. Teachers can assign challenging tasks to students and ask them to work it out as a group.

Creativity

Lessons that are more interesting and interactive have proven to help students retain their learning a lot better in addition to building their confidence and individuality. When creativity is an important part of the curriculum students are encouraged to learn new things out of sheer curiosity and not obligation for grades or marks. They manage to learn how to articulate their thoughts and communicate better. Their social and emotional skills improve when creativity is valued in the classroom. Creative expression has proven to play a pivotal role in students' emotional development.

Due to the uncertainty and loss the pandemic has caused, it is far more imperative than before that classrooms include activities that hone students' creative skills. The pandemic has been emotionally draining and many people are experiencing burnout and loneliness from lockdown. Students who were used to classroom settings and interactions with peers have been deprived of that for prolonged periods of time. Classrooms, virtual or otherwise, need to adapt to this new change and foster creativity within the current context.

Students get the opportunity to enjoy what they are learning when the classroom is creative. The pressure to learn is removed when students are engaged in activities like skits and other activities. Activities that include impromptu actions help students' problem-solving skills develop. It is imperative that teachers inculcate creative problem solving in their lessons so that students can hone their creativity. Enjoyable team-building activities can also be employed to include a collaborative aspect as well. This way students are able to learn how to think in groups and grow more accepting of other people's approaches and mindsets. Conventional classrooms always run the risk of stifling students' ability to express themselves. Students build confidence and develop higher self esteem when they are able to participate in learning activities rather than when they act as passive learners in the classroom. They also achieve a sense of satisfaction when they are able to contribute to learning sessions productively.



Critical thinking

The Coronavirus pandemic has proven to be the greatest public health crisis of our age. One of the most valuable skills that will be required given the ongoing pandemic is critical thinking. It can be loosely defined as the ability to make logical, well-thought-out and reasoned judgements. There is no detailed information on the most appropriate strategies for battling the pandemic. What we can do is to objectively analyse and evaluate the available information to arrive at a conclusion. The pandemic has made it clear that critical thinking must be inculcated into students and they must be equipped with the right problem-solving tools. According to The World Economic Forum, critical thinking is in fact one of the most important skills and that it is one of the “competences of the 21st century.” To achieve this end educators need to use an inquiry-based approach in the teaching- learning process. This means encouraging students to question the things they are curious about. The right question is the first step to solving most problems. It is crucial to use active learning pedagogy. Students must be encouraged to engage with problems that they are presented in a classroom and figure out ways to solve those problems. This can be done by using methods like the Question Formulation Technique (QFT), developed by the Right Question Institute, a Massachusetts-based non-profit organization

Adopting critical thinking as one of the most imperative skills to impart on students would require challenging stereotypes and changing how the classroom functions. From making the teacher the sole imparter of knowledge, students must be further involved in the learning process actively rather than as passive participants. Awareness and reflection in curriculum planning, course development, concept integration and implementing these will play a critical role.

Technology has enabled access to unlimited amounts of information but to sift through all that data onto conclusions that are rational, and sound is imperative. Students in today’s day and age do not need to master the art of retaining information as much as they need to know how to handle information and critically analyze it. They also need to learn how to



manage their emotions and when to take a break from an overload of too much information as the pandemic has proven what a toll that can take as well. For educators it is imperative to encourage and foster critical thinking within the students and teach them how to ask the right questions.

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