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Implementation of Education 5.0 in Developed and Developing Countries: A Comparative Study

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Abstract

Education is one of the most important pillars of the country's infrastructural development. Education sector needs to be aligned with the modernization of general business to industrial and technical development for the better benefits and outcomes. This paper is planned to discuss the historical perspective of educational development as standard originated as Education 1.0. Its latest form is Education 5.0, and it is highly rated in terms of its association with the current business needs and integration with the industrial and technological developments. Education needs to adopt the use of modern industrial and technological revolution like artificial intelligence, robotics, machine learning and data analytics for providing an immersive and interactive learning environment. This paper reviews the Education 5.0 implementation in both developed and developing countries through an extensive literature review. Study discussed the mapping of main components of Exudation 5.0 in the education sector of both developed and developing countries of the region through observation of relevant literature. Countries are selected by using the PRISMA method based on the research in last almost six years. Saudi Arabia and Malaysia are selected from the developed countries from the region, where Education 5.0 is being implemented successfully. Zimbabwe and Sri Lanka are selected from the developing countries to observe and assess the deployment gap of Education 5.0. Study has found that there is big need of revisiting the current situation of implementation of Education 5.0 in developing countries. Study could be further extended to investigate based on quantitative and qualitative methodologies in different areas as pointed out in the study to observe and assess some other latent concerns, which are affecting the implementation of Education 5.0 in developing countries.

Keywords

Education 5.0, PRISMA, Artificial Intelligence, Robotics, Machine Learning,

Data Analytics

1. Introduction

Academic learning aspiration is the pivotal significance of societies since the humanity evolved. It is an ongoing process to nurture the learners with skillful practical academic knowledge aligned with the competitive market needs, by using the most modern tools and techniques. Generally, elementary education has been one of the basic components for the development of any country. Whereas, higher education is the main platform which prepares the graduates to play their practical role in the countries is economical, medical, technical and industrial growth. Most of developed country's educational infrastructure is aligned with the modern technologies and benefits from that to improve the academic base. Modern world situate distinct concentration on development of modern education environment, which could enhance and improve the learner's academic aptitude at all levels (Samiha et al., 2022). As Higher Education Institutions have been playing a key role in development of skillful academic environment for fostering the youth with state of the art technology. Saudi Arabia and Malaysia are the two examples among many others, who have deployed the most modern technologies in the education sector and they are ranked very high among the most advanced countries list. It matters a lot when it comes to under developed countries, where there is a big gap between the integration of modern technologies in the education sector. Zimbabwe and Sri Lanka are the two examples among many other countries, who are far behind in terms of modernization of education sector.

COVID-19 pandemic breakthrough severely hit financially the entire world, but poor countries had suffered more. Due to financial issues, poor countries had to prioritize their spending and medical and hospital sector took priority. This has also affected the education sector and priority of brining innovation in education sector was highly affected. During this period, it has been a serious concern for poor countries in developing an improved and appropriate education standard in the education sector. Furthermore, uncertainty situation of COVID-19, where regular on campus classes were forced to shift to an online class environment, got more importance in terms of extra spending. This has become a vital and important domain for academic experts in developing countries. Poor and developing countries put financial cuts on education budget to increase the budget for hospitals.

In last few decades, education as standard has been reviewed in relation with the technological development to bring the innovation in academic sector. In this regards, academic experts have evolved the term Education as a standard to be adopted and synchronized with the use of most modern technological standards. This term is vibrantly used in improving the academic environment in collaboration with the industry standards and modern technology in parallel.

This particular paper is reviewing the overall development of education sector and its integration with the technological development in both developed and developing countries. Focus of the paper is to observe and assess the current situation of poor counties to highlight them the main features of Education 5.0 to get maximum benefit of the modern technological tools in their education sector. For this purpose, historical perspective of standards Education and Internet/Web is given here under.

2. Historical Perspective Education Standard

Education standard 1.0 evolved in parallel with the inception of the Internet during mid1990s. Practically professional calls that "*Read-Only*" web platform, where the average user participation was just to scroll down the given information on static web platforms, which is mostly know as dot-com boom of internet but only for technical users. Education sector was barely using this platform for the academic purposes. By the end of 1999 Web 2.0 was launched, this was marked as "*Read-Write-Publish*" web framework and non-technical users can be benefited by this. These non-technical but professional users can actively participate by using different blog websites. This has changed the face of internet globally and people welcomed and involved in using the information of their interest available on websites. Web 3.0 is known as the semantic executing web lead the world to newer phenomenon of "*Read-Write-Execute*". The term semantic has further two layers semantic markup, which denotes bridge the communication gap between the user and the machine and web service is a software tool designed to help and facilitate the user to perform the task from one computer to another computer. Web 3.0 provided a soft communication tunnel, where different application can communicate to each other by using the symmetric software interfaces. Practically, first three levels were a bit more traditional and were not used in academic environment, as more modern methods and methodologies have been evolved and presented Education 4.0 and 5.0. No doubt, Web 3.0 provided that baseline for academic institutions to further explore and link the computing tools in academic learning environment. Almost a decade ago, education 4.0 has got huge acceptance in the academic environment because it was linked with the development of suitable and appropriate technology (Sharma, 2019). Both teachers and students have well defined roles and privileges in the learning room. The role of the teachers is to perform the knowledge source whereas students are on the receiving end to learn the knowledge from the teachers in an academic environment. This method is mostly understood as instruction based learning process with minimum eye to eye contact or physical interactions between the teacher and student (Newby, 2003).

Education 4.0 is a method to make the best of use of the technology in the learning environment. This industrial revolution focuses on smart technology, artificial intelligence, robotics, machine learning and data analytics for a better and conducive immersive and interactive learning environment; all of which

now influence our everyday lives. Higher education institutions must adopt the best practices to produce more successful university graduates. This could only be done when higher education institutions will adopt the cyber-physical systems. This motivates the decision makers that technology has to be part of the modern education environment. This forces the decision makers to integrate the technology aspect in the university curriculum to adapt to the modern academic environment. As this technology integration initiated with Education 2.0 with revolutionary web development of Web 2.0 (Maria, Shahbodin, & Pee, 2018). Education 3.0 is the third revolution in education where technology got more integration in teaching. Technology was used to create and transfer the knowledge by using the technology. The dilemma of this development was that there was shortage of certified and licensed professionals (teachers) to conduct the learning activities (Anealka, 2018). Following are the levels of Education standard shown in **Figure 1** below.
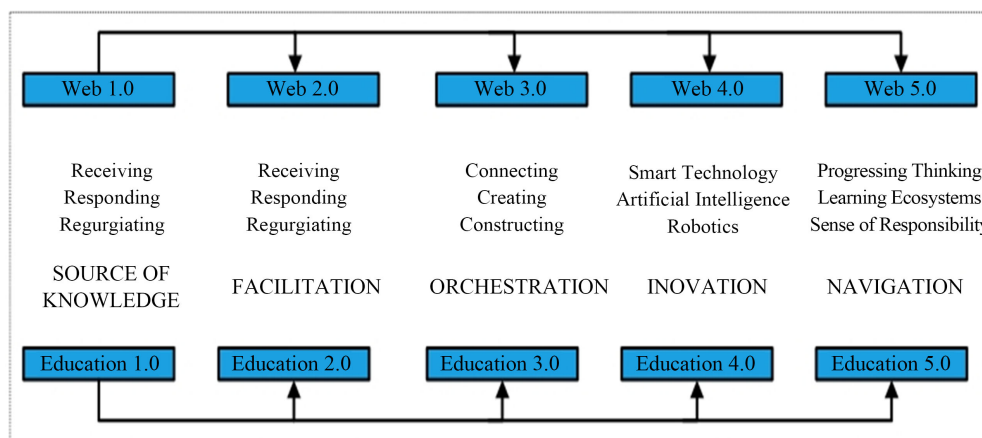

Figure 1. Evolvement Process of Web and Education 1.0, 2.0, 3.0, 4.0 and 5.0.

3. What Is Education 5.0?

Since the technology and academic institutions have been running in parallel for transformation of the education. Development of modern tools and techniques are also being updated in parallel for the better education standards. Education 5.0 is the next gen in precedence of the previous four versions (Mustafa Kamal et al., 2019). All parties involved who could play a role in teaching like teaching staff, students, and administration, define the core of Education 5.0 as learning. In particular, learning is connected to the student or the learner, focused on the learner, demonstrated by the learner and driven by the learner (University Teknologi Mara, 2019). As such, the learner is seen as a whole person of whose values, beliefs, thoughts, knowledge and skills are not seen as separate fundamentals to be nurtured and trained. Dynamic technology surrounds the learner and provides options for the learner's core decisions of what, where, when, how, why and with whom to study (Melluso et al., 2020). Detail is given in **Figure 2** below.
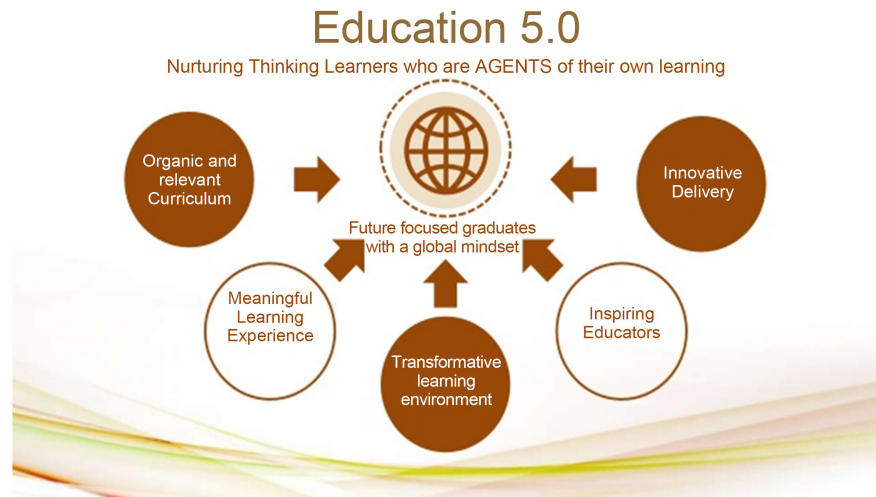
Figure 2. Education 5.0 (University Teknologi Mara, 2019).

Education 5.0 has following key areas for implementation to obtain maximum benefits:

- Focused learning to become a professional.
- Improved and blended concept of personalized learning.
- Applying creative thinking for solving the problems.
- Developing value based learning culture.

Following are the key pillars of Education 5.0 and their outcome:

• **Coherent and Relevant Curriculum:** Curriculum development is a key to enrich the learning environment. This requires intuitive methodology for designing and developing a dynamic and organic curriculum. Students will be provided a real world to learn and perform the skills in a real industry or business. Students must be capable of performing these skills with adaptive competency. For this purpose, curriculum must include industry and community relevant concerns and requirements. Furthermore, shared and distributed content and multidisciplinary electives and programs must be included in the curriculum.

• **Innovative Delivery and Assessment:** Students are not only a business perspective; technology will help and transform the classroom environment where student will play a role of an active learner. This will move the traditional learning scenarios from instructive mode to transform the learned information into a practical and applied knowledge. Delivery method will be updated with practical presentations and teaching instead of traditional assessments.

• **Meaningful Learning Experience:** Learning will have a strong intellect of converting knowledge to an experience based information. It will consist of comprehensive set of magnitudes like activity oriented, technology supportive, compliant experience, and comprehensive relevance with the industry.

• **Transformative Learning:** Learning environment will be an active and unique environment by adapting advance technology for effective and meaningful learning. This will include applied learning experiences from converting

the structural paradigm to practicing the learner's opinions and spirits into practical activities between teachers and students. Furthermore, smart schools equipped with data analytics labs for performing the theories and formulas in an immersive and interactive learning environment. Student will play the role of agent for further extending the knowledge.

4. Globalization Impact on Education 5.0

Globalization is one of the most important factor in recent past which influencing the modern education. Advancement in Information and Communication Technologies (ICT) has revolutionized the way of traditional education to modern means of education. ICT is facilitating and enhancing the transition from industrial based society to information based society. This phenomena has a strong impact on the education systems, bring new innovative ideas, adding values in learning mechanisms, student's and teacher's role is dynamically changed (LeTendre, 2022). In addition to this, globalization is bringing a big shift in social industrial sector, where societies are being transformed into an information based societies. It also has a strong impact on cultures being cultural domination shaping up into a modern form of culture (Sharma, 2012).

Future world is a diversified business competitive environment, where distance and space is less important and counties and societies are emerging into a new and pioneering global market, where businesses and economies are based on knowledge based industrial platform for businesses (Sart, 2022). This platform is run supposedly run and managed by skillful set of knowledge by using the intellectual intelligence to compete in the global market and to address the uncertainties involved in this process. Education 5.0 is helping and facilitating the graduates with most important and long-life knowledge based on learning skills with hands on training experience in the competitive market (LeTendre, 2022).

Globalization has also some concerns, like increasing inequality, financial corruption, jobs security and most importantly poverty and environmental issues. This also brings huge stress on education sector to produce technical professionals to meet the global requirements especially in developing and under developed countries (Quainoo et al., 2022). This is big concern for poor counties, where already lack of physical and financial resources is affecting the overall growth.

5. Key Role of the Teacher in Education 5.0

This is also helping the teachers to improve their teaching methodologies aligned with the international standards and market requirements. Teacher's role has become an essential part of the modern education; following are some of the key roles of teachers in Education 5.0:

• **Resource Specialist:** Teacher must fulfill the requirements of a resource specialist because modern education more relies on the source of knowledge instead

of just knowledge. Therefore, it is teacher's role to provide source of information for the students and to help them how to use the provided information.

• **Support Person:** Teacher will be playing a role of support person, instead of traditional way of delivering lecture etc. Students need support while leaning new skillset of informative knowledge both technical and otherwise. Teachers job is to facilitate the student whenever some information is needed like a coach, leader or a counselor to help the student in learning and acquiring the knowledge in a specific subject.

• **Mentor:** In modern education, teacher's role is more towards presenting himself as a mentor, having all capabilities of admiring a student, shape the student's behaviors; expand the required work ethics, provide leadership skills for their continuous growth in developing their personality as a true professional, which will influence the student to be more motivated towards learning. Student will always look for a role model instead of a traditional instructor.

• **Helping Hand:** This is very important role of the teacher is to help the student during the learning process and providing help in other extracurricular activities in accordance with the school/institute policy.

• **Learner:** One of the very important role of the teacher to be open always as a learner because learning is a continuous and life-long process, this will add values to the teachers personality and will help the students to learn better from the teacher.

This study is mainly focusing on the implementation of Education 5.0, in developing and developed countries. It was important to look for the most appropriate method for selecting the countries for the studies. For this purpose, systematic analysis process is adopted using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

6. Counties Selection Process for the Study

Researcher conducted an extensive process of looking for the relevant data for the current study. First, the research papers were searched on peer-reviewed journals. The main purpose was to determine the scope of the research regarding different education standards, particularly Education 5.0 development. Second, criteria were extended to articles published in the ICT domain, as this study was focusing on the combined development of Education and Technology in rich and poor countries. For both areas, some benchmarks were set to make the research evidence strong and helpful. For this purpose, cite score, impact Factor was considered as a base benchmark. Moreover, Google Scholar metrics, Social Science category ranking, Education and Technology classifications. Lastly, this process was also restricted to last 6 years research development in both developed and developing countries. To make the process more authentic and updated, the last PRISMA checklist was used for the current study. For this purpose some important key words were used in search process, like 'Education 1.0, 2.0, 3.0, 4.0, 5.0, Industry 1.0, 2.0, 3.0, 5.0, Computers and Education, ICT and

Education. This process was used by searching through the Science Direct database (https://www.sciencedirect.com/journal/computers-and-education) to get the most relevant research papers.

This search process found around 46 research papers; next phase was to filter the journal ranking, availability of paper in English language and must be related to the education and technology. Finally, 32 research papers were selected for the current study. There were very few studies found in developing counties addressing the issues of this research. Following are the studies adopted after the selection of research article for the current study:

7. Research Paper/Article Selection Method

Mostly studies were searched addressing to the education standards, IT, ICT and the focus was that studies must be published in peer reviewed journals, Full text availability in English language was ensured and most importantly studies must be focusing the relationship of education and technology. Similarly, rejection was based on if the article is other than English language, ICT, research method is not clearly defined and if the research is on a review paper. The criteria for selection and rejection of the studies for the current study are detailed below in literature synthesis Table 1 given below.

In addition to this, for handling the biasness in the selection process, a thorough process was adopted in searching for the required articles on web databases. Total 32 studies articles were found and after applying filter process with reference to the study requirements i.e., restructuring the education sector, upgrading the academic process, systemize the operations and promote the digitization in education sector aligned with the Education 5.0. In addition to this, study were selected from the year 2017 onwards, this date filter was applied to take the most recent research studies in this domain. Total 32 research papers were found relevant to the study topic and selected for the study to be used as a source of reference as per the procedure explained above in Table 2. The literature synthesis detail is given below for better understanding:

Table 1. Literature synthesis detail.

Selection Criteria	Rejection Criteria
Education 1.0, 2.0, 3.0, 4.0, 5.0	Published in other than Education
IT and ICT	Published other than ICT
Peer Reviewed Journal	Research method is not clearly defined
Full Text Availability	Review studies
English Language	
Research specific to the Education and Technology	

PRISM data flow is shown in **Figure 3** below, which explains the process of selection of relevant literature for the current study.
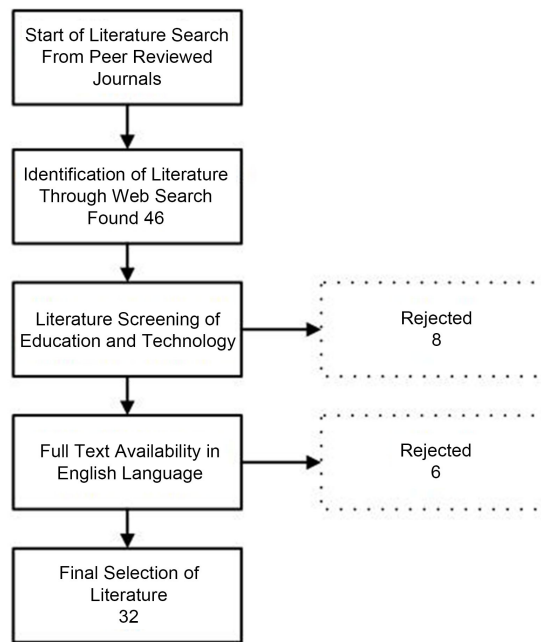

Figure 3. PRISMA Flow Diagram used for the current study.

Table 2. Literature Synthesis Detail used in the current study.

Reviewed Article	References
Malaysia	(Maria, Shahbodin, & Pee, 2018), (Mustafa Kamal et al., 2019), (Adnan et al., 2020), (Awang, Taib, & Muda, 2020), (Sharma & Garg, 2021), (Sart, 2022), (Zainal & Zainuddin, 2020), (Ajit, Lucas, & Kanyan, 2022), (Lawrence, Ching, & Abdullah, 2019), (Yang et al., 2022), (Alshaikh et al., 2021), (Padil et al., 2019), (Yeop et al., 2019), (Mohamad Razi, Baharun, & Omar, 2022), (Mukhula et al., 2021), (Sharma & Garg, 2021), (Anealka, 2018)
Saudi Arabia	(Yusuf, 2017), (Mirghani, 2020), (Agrawal, Jain, Yadav, & Manupati, 2021), (Alshaikh et al., 2021), (Sart, 2022), (Alghamdi, 2022), (Mukhula et al., 2021), (Yusuf, 2017), (Alghamdi & Holland, 2020), (Aljabri, 2020), (Alharthi, 2018), (Fahad Saleh, 2019), (Aljameel, 2022), (Al Mofarreh, 2016)
Zimbabwe	(Rumbidzai Muzira & Maupa Bondai, 2020), (Awang, Taib, & Muda, 2020), (Rumbidzai Muzira, & Maupa Bondai, 2020), (Wuta, 2022), (Kangara, Gocha, Tsokota, & Marovah, 2022), (Maketo, 2018), (Keche, 2021), (Ngwenya, 2018), (Nezandonyi, 2018), (Wuta, 2022), (Mathende & Beach, 2021), (Awang, Taib, & Muda, 2020)
Sri Lanka	(Samiha et al., 2022), (Sharma & Garg, 2021), (Wijesinghe et al., 2020), (Yang et al., 2022), (de Silva & Amaradasa, 2022), (Gunasekera & Balasubramani, 2020), (Ministy of Education, 2020), (Rajaguru, 2021), (Kalamany & Pragnadarshana, 2016), (Vidanagama & Karunathilake, 2021), (Lanka et al., 2021), (Samiha et al., 2022)

Table above shows the detail of literature synthesis used for the current study; researcher thoroughly evaluated the related material. Researcher being located in Kingdom of Saudi Arabia, was focusing the developments in the field of ICT, IT and Education, searched for the studies and make a comparison with Malaysia being known for providing high quality education. Malaysia was actually selected after reading the articles regarding recent development in Education sector in recent past. Most of the students from the region are studying in Malaysia and hence it was good to use the literature for the current study. Two developing counties Sri Lanka and Zimbabwe were found very low in terms of research conducted in this domain. Hence, researchers choose these two countries to make the analysis and comparison more understandable in terms of implementation of Education 5.0.

8. Education 5.0 Implementation in Developed World— Malaysia

Developed countries are providing ample financial resources for the development of higher education sector to meet the market needs and demands. As they believe this is the backbone of the country's future prospect in terms of economical and industrial growth. Most of the modern world academic institutions are in the top rank list, which shows they are using the best technologies to provide innovative education aligned with the market needs. In recent past countries like Malaysia is an example where they developed and transformed the educational sector to a level that most of the world is attracted to the Malaysia. First, they cater the demand of their nationals and in addition to this; students from the region have also been coming for the higher education (Awang, Taib, & Muda, 2020). Their focal point is to shift the learners aptitude from traditional learning to experience based learning by launching the new innovative ideas, challenging the critical concerns to express and develop a more flexible and saleable learning environment for the learners. A study was conducted in 2015 to assess and evaluate the impact of learning outcomes of modern methodologies deployed at higher education sector (Anealka, 2018). Study proved that the paradigm shift of education from earning higher grades to learn by experience in the competitive market made a huge impact on the learner's academic achievement. Following are some of the key achievements in terms of providing modern education at higher education level:

- **Educational Ecosystem Transformation:**

Ecosystem is the theory, which focuses on the integration and association of stakeholders in an academic environment including educational management, academic staff and parents to facilitate the learners in providing quality education an academic environment. This was one of the main area, which shaped the experience based learning abilities of the students aligned with modern world requirements based on the market and industry needs and demands (Sułkowski et al., 2021). The main purpose of this transformation is to adapt the most modern tools and techniques for preparing the learners to perform better in the

competitive market place (Maria, Shahbodin, & Pee, 2018).

- **Industrial and Social Evolvement:**

This is another big shift in terms of addressing and coping up with the fast and swift change in the competitive market place. Arise in competition forces the industries to be moved cautious and specific in adopting the modern methodologies in the industry and hiring the right man for the job. Because raw human resource needs more time in acquiring the relevant knowledge by training and workshops, which industries are not interested at this period? Industries are more towards hiring an infidel, who is academically qualified, skilled and equipped with the modern tools and technologies required by the industry and ready to work as joins the company (Awang, Taib, & Muda, 2020). Similarly, social evolvement is the area where society will play this role for the development of societal standards and improving the social setup at different levels (Adnan et al., 2020). Academic believes that better academic education add strong values, passion and sense of social and civic fabric aligned with modern tools and techniques will add values to the societal development in evolving it and aligning it with modern world. This will be helpful in adding values to the society and environment as well.

- **Modifications at Higher Education Sector:**

Malaysian education sector was thoroughly studied and professionals recommended certain changes in the higher education sector. Focus was in upgrading the curriculum to the market needs and this process should run periodically to cater the market and industry needs. Most importantly, technology is playing a key and vital role in the entire process of modernization of academic environment (Díaz Lantada, 2022). Thoughtful deployment of technology will ensure the betterment if learning environment and will make sure that academic learning is fully integrated with the modern experience based learning. Detail is illustrated in Table 3 below.

Table 3. Mapping with education revolution in Malaysia.

EDUCATION LEVELS	MAPPING WITH EDUCATION REVOLUTION IN MALAYSIA															
	Restructuring				Academic Process				Operations				Digitization			
	Regulations	Philosophy	Training	Supervision	Curriculum	Policies	Skills	Creativity	Self-Financing	Human Resource	Equipment	Efficiency	Digital Library	Smart Schools	Scientific Research	Center of Excellence
Education 1.0																
Education 2.0																
Education 3.0		✓	✓		✓						✓					
Education 4.0	✓	✓	✓		✓	✓	✓			✓	✓	✓	✓		✓	
Education 5.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Figure below states the relevance of each education standard to its corresponding area in the education sector. First, 28% studies discussed in the literature review about restructuring the rules and regulations, modernize the teaching philosophy, and improve the process of training and supervision. Second, 30% studies discuss to improve the academic process to upgrade the curriculum,

redefine the policies, and improve the skills and creativity. Third, 20% studies focused on the operations to promote self-financing, prepare skillful human resource, and provide best equipment to improve the efficiency. Lastly, 22% of the studies emphasized the importance of digitization to use the digital library, plan and prepare the smart schools, promote the scientific research culture in schools and make the educational environment a center of excellence. Further distribution of these studies is shown in **Figure 4** below.

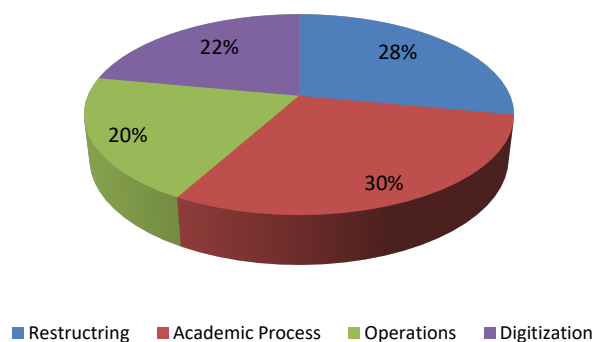**Distribution of Studies used in the Mapping in Malaysia**

Figure 4. Distribution of Studies used in the Mapping in Malaysia.

9. Education 5.0 Implementation in Developed World—Saudi Arabia

Secondly, Saudi Arabia is a country that is spending huge amount of financial and human resources in developing the education sector to meet the market demands and needs aligned with the international standards. Specially VISION 2030 is based upon three main pillars, i.e. a vibrant society, a thriving economy and an ambitious nation (https://www.moe.gov.sa/en/aboutus/aboutministry/Pages/visionmissiongoals.aspx). This shows that the country is using its resources to help and develop the youth of Kingdom has to meet the international standards. Following are the key elements of Vision 2030:

• **Educational Development:** First priority of the government is to focus on building the educational development like, philosophy, policy and goals of the curriculum. Second, developing a mechanism to integrate the philosophy and policy to achieve the goals by developing a professional academic environment (Yusuf, 2017). This will help the learner to learn in a more convenient environment to develop skills, personality development, improving confidence, and promoting spirit of creativeness in an attractive, preferred and stimulant school environment, connecting it with supportive and integrated services systems.

• **Administrative Development:** Academic environment at all levels must be redefined to groom the talent, instills skills and encourages the youth to face challenges, competitiveness. A flexible environment should be provided where learners loves to learn by enforcing the educational discipline. Learners should

be provided an environment to excel their skills without any fear. For this purpose, rules and regulations for developing an international standard education environment is given top priority (Iqbal & Sohail, 2021). This is planned to increase the efficiency by reducing the cost, maximizing the learner's potential with state of the art technology and physical infrastructure.

• **Changing Trends:** Improving and building up the administrative condition in the Ministry and its Education divisions, endorsing decentralization of the management, assigning controls to offices and schools to serve the instruction framework (Mirghani, 2020). Creating rules and techniques to guarantee work earnestness and control in instruction framework, advance equity and prize for extra ordinary achievements for learners.

• **National Education Platform:** Saudi authorities have also worked on developing a national education platform to provide best possible services to students, teachers, administrative staff and the parents. Furthermore, this includes developing an inclusive student profile to cater the student health information, professional counseling, digital knowledge libraries and smart school (Lang et al., 2018). This platform also includes the responsibilities put on the education ministry to make sure that these services are provided by developing a bridge between the students and teachers. Following are some of key initiatives taken under this platform (Lang et al., 2018):

• The expert and self-improvement of the academic staff towards raising teaching and taking initiatives in developing and structuring the management capabilities.

• An online library system "Saudi Digital Library" has been setup to help both the learners and teachers for getting help in accordance with the imparting the international level education standards.

• More consideration has been emphasized on building of educational buildings, equipped with state of art technical facilities in the premises. This provides best possible academic environment for learners and teachers and management.

• Scientific research has been given a top priority to enhance the application of knowledge production towards scientific research. For this purpose, universities and colleges have setup research center and financial remunerations to researchers are provided to the researchers.

• Saudi government has encouraged the private sector to take part in setting up academic institutions in parallel with the public sector. This is healthy and competitive development and affordable educational system.

• Smart school provides state of the art facilities to the learners and teachers for imparting the knowledge. Saudi authorities have encouraged smart schools and most of schools, colleges and universities are connected to these modern educational systems.

• Saudi government is giving overseas scholarships to the eligible the students for the higher studies from reputable universities from outside the Kingdom.

Detail is illustrated in **Figure 5** below:

Figure 5. Programs Compliance to Vision 2030 (Government of Saudi Arabia, 2016).

10. Vision 2030 Mapping with Education Revolution

Education standards have evolved to the next level where it is being treated as an industry, which helps and builds the youth by blending both traditional and modern tools. Industrial development has transformed the traditional education systems to a more modern and sophisticated technology based systems. Education industry evolvement starting from 1.0 and continues through 2.0, 3.0, 4.0 and recently reached to level 5.0. This industrial revolution is based on the digital transformation to prepare the academic sector to meet the needs and requirements of the fast growing academic requirements worldwide. Modern world has used the best industrial developments by linking their academic institutions to the modern industry standards. Adoption of industrial developments, linked with the modern technological developments will help and build the future education more helpful for the learners and teachers. Researchers have pointed out that this modern development in the industry has helped in modernizing the academic environment (Werner & Tang, 2017). In light of the recent research, studies results, most of the academic institutions at all levels have to launch the industry levels in the education systems. Education 1.0 was the first initiative in this regards of getting knowledge through education (Maria, Shahbodin, & Pee, 2018). Education 2.0 further proposed methods for learners by introducing developed principles to optimize and improve the quality and output (Tan et al., 2018). Education 3.0 was a big revolution by linking the telecom industry, made it easier for the learners and teachers to access the online school systems. Furthermore, it helps the students to share the knowledge with other

students to come up with new ideas by using the most modern technology (Mustafa Kamal et al., 2019). Education 4.0 is also a great achievement in the industry by using the modern technologies like artificial intelligence, robotics, machine learning and data analytics for immersive and interactive learning environment. Saudi government has also taken indicatives to map the industrial revolution with the education sector for developing a state of the art academic environment. This helped to enhance the academic standards in the kingdom to meet the international standards.

Higher education institutions like other businesses cannot grow or even sustain, if they do not adopt the modern tools and technologies in the education industry. Disruption is defined as "*process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses*". The disruptive innovation adds modern values to the business by disrupting the existing business, products and associations (Agrawal et al., 2021). The term was defined and first analyzed by the American scholar Clayton M. Christensen and his collaborators beginning in 1995 (Ajit et al., 2022). In addition, it has been called the most influential business idea of the early 21st century. Modern business environment demands are innovatively high in lots of aspects i.e. social, business and economic are basic areas, which must be categorized as under:

- Business or Industry has been disrupted.
- Business or Industry is being disrupted.
- Business or Industry is going to be disrupted.

Businesses are categorized in one of the above-mentioned three areas of disruption innovation. Business has already been disrupted and adopted the technology innovation or in the process of being disrupted and going to avail the technology based tools for business growth or a business is in the process of evaluating the innovation of disrupted technology for the industry.

Education 5.0 is highly innovative method, which can develop the teaching staff, students, administration to the next level of technology adoption in learning environment. Learning process is established by the learner and driven and controlled by the learner (University Teknologi Mara, 2019). As such, the learner is seen as a whole person of whose values, beliefs, thoughts, knowledge and skills are not seen as separate fundamentals to be nurtured and trained. Dynamic technology surrounds the learner and provides options for the learner's core decisions of what, where, when, how, why and with whom to study (Melluso et al., 2020).

Saudi ministry of education and higher education institutions are working jointly to form and develop the most appropriate and suitable learning environment. In this regards, Saudi authorities have launched the Tenth Development Plan and the Role of the Ministry of Education for the betterment of the education infrastructure presented in The International Conference & Exhibition for Education 2020, in Riyadh, Saudi Arabia (Summit, 2020). This plan focuses on the innovative requirements for the betterment of the overall education sector.

This project has given considerable amount of following importance for education sector (Summit, 2020):

• 6 new universities have been established in higher education sector to target and cater 1.3 million students and graduating students will be 800,000 during this plan by expanding the offered program in the Saudi universities by 5% of current total number of registered students in higher education sector (Summit, 2020).

• 97 technical colleges have been started for female and total number of schools are touching a number of 30,000, catering 5.5 million students, which will be increased to 397.000 by the end of next year to provide education to early childhood education (Summit, 2020).

In terms of mapping VISION 2030 with the Education 5.0, ministry of education has addressed the challenges faced by the education sector. General goals and key indicators were identified for performance measurement in accordance with the Education 5.0 transformations. National Transformation Program for General Education program is an evidence for ensuring the practical approach and to resolve the challenges and obstacles faced by the education sector (Summit, 2020). Following are key initiatives for betterment of overall Saudi education sector:

• Academic curriculum philosophy, policies and goals development in accordance with the international standards in an improved education environment to stimulate the creativity and skills. To enhance the operational performance by adopting the cost effective measures and making the most of human capabilities, resources, equipment and buildings.

• Equal quality educational opportunities for all by improving the enrollment of students with the target of enhancing the values and skills of students both at primary and at higher education level. Includes structural reforms by drafting the new rules and regulations by forcing the discipline in the educational system, seriousness in educational practice, participating in activities and attending forums and events.

• Restructuring the educational sector, with a recent drafting of the system of regulations, instructions and executive rules that govern the development of curricula, the enrollment of teachers in the educational sector, the organization of educational supervision, and the continuous improvement of professional development and training.

• Raising the efficiency of operational performance, reducing wasted costs, and making the most of human capabilities, resources, equipment and buildings.

• Increasing the financial resources of the both private and public education sector for the capacity building of education and training system to meet the competitive labor market requirements.

• Educational Investment Services Center has been established to allocate the financial resources from private sector. Ministry has also formed partnerships with the concerned agencies to overcome the difficulties facing investors.

• Ministry has launched initiatives to encourage and support foreign invest-

ment to resolve the investor's concerns in all regions of the Kingdom.

• Saudi Digital Library has been setup as the largest academic collection source in the Arab world, having more than 310,000 scientific references, catering most of academic and scientific fields. Smart school buildings are connected to provide support services of linked educational platforms to monitor data trends.

• Scientific research including the Center of Excellence, Distinguished Planning Forum, and the National Olympiad for Robots, the Scientific Olympics, Nashr program and the Center for Developing Research Works has been initiated to encourage the researchers.

• Ministry is also providing external scholarship program to qualified students to send them abroad for higher education from well-reputed universities.

Further distribution of these studies is shown in **Figure 6** below.

Above-mentioned figure states the relevance of each education standard to its corresponding area in the education sector. First, 26% studies discussed in the literature review about restructuring the rules and regulations, modernize the teaching philosophy, and improve the process of training and supervision.
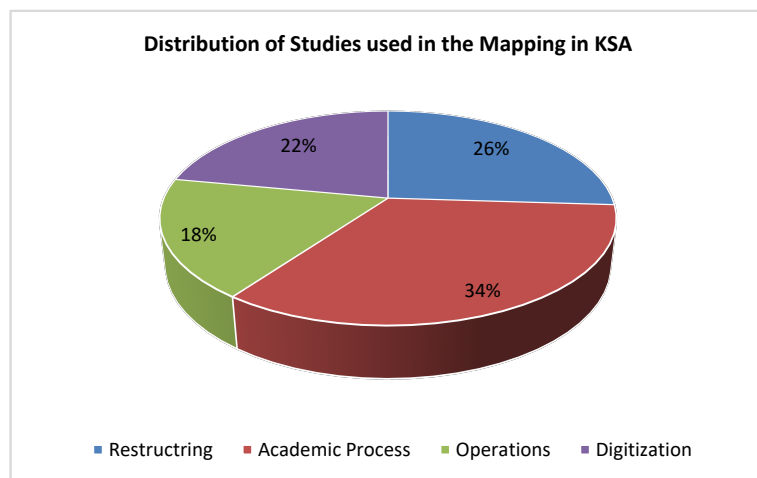

Figure 6. Distribution of studies used in the mapping in KSA.

Detail is illustrated in **Table 4** below.

Table 4. Vision 2030 mapping with education revolution.

EDUCATION LEVELS	VISION 2030 MAPPING WITH EDUCATION REVOLUTION															
	Restructuring				Academic Process						Operations			Digitization		
	Regulations	Philosophy	Training	Supervision	Curriculum	Policies	Skills	Creativity	Self-Financing	Human Resource	Equipment	Efficiency	Digital Library	Smart Schools	Scientific Research	Center of Excellence
Education 1.0																
Education 2.0					✓					✓						
Education 3.0	✓		✓	✓	✓	✓				✓	✓	✓				
Education 4.0	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓			✓	
Education 5.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Second, 22% studies discuss to improve the academic process to upgrade the curriculum, redefine the policies, and improve the skills and creativity. Third, 18% studies focused on the operations to promote self-financing, prepare skillful human resource, and provide best equipment to improve the efficiency. Lastly, 34% of the studies emphasized the importance of digitization to use the digital library, plan and prepare the smart schools, promote the scientific research culture in schools and make the educational environment a center of excellence.

Table 4 shows a tabulated detail of different actions planned and exercised in deploying the education levels in education sector. It shows the efforts made in restructuring the education industry, improving the academic process and operations. It also details the digitization development in the education industry. Vision 2030 is a hallmark of the Saudi authorities in adopting the modern tools and techniques in the education sector. Saudi government has taken thoughtful actions in development of education sector in accordance with the international standards. This process has been further extended in year 2010 by focusing on the modern tools and techniques in education industry. Education has been recognized as industry and considerable efforts were taken to modernize the education industry to meet the international requirements. Vision 2030 was launched in 2016 and made the revolutionary enhancement in the education industry. Ministry of Education has taken important initiatives to modernize the education industry by adopting the modern tools and techniques. It also emphasized on restructuring the educational environment by developing rules and regulations based on the required relevance with the academic process. Special focus is given to impart technical certifications, trainings, and supervision of the classroom environment. Furthermore, academic process is given due consideration by developing the curriculum philosophy based on the policies and goals. These policies will further enhance the skills and creativity among the peers. It also shows that the efficiency of operations is considered very high to improve the academic activity by making the best use of teaching staff capabilities, other resources and equipment. Saudi authorities have planned to transform the government universities from public sector to private sector on a self-finance policy. This is another sector to encourage the investment from the private sector. For this purpose, Educational Investment Services Center has been established to provide the technical assistance to address and resolve the issues faced by the financers and investors. Saudi authorities have also taken initiatives to encourage, help the foreign investors to setup, and launch colleges and universities in private sector. Digitization is another great achievement for providing a digital platform for students, teachers and researchers. Digital library and smart schools is a great development, which helps to improve and enhance the academic process by giving them a single point of resource availability. In addition to this, distinguished planning forums have been setup at higher level in the government and private sector including National Olympiad for Robots, Scientific Olympics, Nashr program and the Center for Developing Research Works to help and guide the help the researchers (Samiha et al., 2022).

11. Education 5.0 Implementation in Developing World— Zimbabwe

Under developed countries are facing many problems like economic and financial issues, which affects highly the mainly education and health sector. Zimbabwe is one the developing countries, who is going through different issues like, political and economic. Recently, a study was conducted to explore the learner's perception towards the modern methods of learning like Education 5.0 in the state university of Zimbabwe (Rumbidzai Muzira & Maupa Bondai, 2020). Study showed that the overall education sector has many deficiencies to cater the market needs and align the education sector with the market demands. In this regards, Education 5.0 was recommended at state higher education to bridge the gap between the country's market needs and the academic knowledge provided at universities. Focus was the transform the traditional education system to learning based academic environment aligned with the market needs as Education 5.0 is more towards developing the research oriented educational environment. It also provides the social services and brings innovational integration between the education sector and industries (Rumbidzai Muzira & Maupa Bondai, 2020).

12. Education 5.0 Implementation in Zimbabwe

Most of recent studies have recommended the following for successfully deployment of modern and innovative tools in the higher education sector of Zimbabwe (Awang, Taib, & Muda, 2020):

- **Infrastructural Development:** For the purpose of implementation of Education 5.0, Zimbabwean higher education ministry has given authority to the Zimbabwe Council for Higher Education (ZIMCHE) to implement the Zimbabwe National Qualifications Framework to plan the programs for improving the transparency in the education sector (Rumbidzai Muzira & Maupa Bondai, 2020). Program was launched to cater the market developmental needs and to remove the obsolete and outdated academic programs out of the curriculum. Modern and innovative benchmarks were setup based on the competitive market needs and demands in the higher education sector.

- **Financial Infrastructure:** Furthermore, for providing the basic technological needs to higher education sector, financial resources were allocated to cater the educational needs of students, teachers and other equipment purchasing. In addition to this, student's loans were granted for the deserving students through Ministry of Higher and Tertiary Education, Science and Technology Development program (Rumbidzai Muzira & Maupa Bondai, 2020). Both local and international financial institutions for helping the needy students to achieve their higher education at most cost effective environment.

- **Promotion Infrastructure:** Another very important issue was the academic staff promotion to higher ranks, Higher and Tertiary Education Institutions formed a unified policy across the country to be adopted for developing a sustainable academic platform. This unified promotion criteria helped to overcome the favoritism and promotions were purely based on the predefined procedure

(Rumbidzai Muzira & Maupa Bondai, 2020). This process has helped to bypass the promotion anomalies at different stages and only the deserving candidates will be promoted to next level who fulfills the promotion requirements. As the new promotion infrastructure was based on true basis of equality benefitting only those who have performed better in their academic filed.

● **Physical Infrastructure:** Physical infrastructure is a strong base for any kind of investment; financial resources are an important source for this kind of development. In today's era, government have limited financial resources, hence private sector to provide financial support to the higher education sector. Private Public partnership can play a vital role in developing the basic infrastructure of technology hubs, knowledge cities for providing state of the art technology in higher education sector (Rumbidzai Muzira & Maupa Bondai, 2020). Zimbabwean government encouraged the public-private partnership for the development of physical infrastructure of science and technology fields for facilitating the education sector to excel promptly. These public-private partnerships were to form Build Operate and Transfer (BOT) and Build Own Operate and Transfer (BOOT) arrangements in the higher education sector of Zimbabwe. Government was there to give this entire legal umbrella by setting up the rules and procedures for monitoring this entire process (Awang, Taib, & Muda, 2020). Below table gives the over detail of adoption of Education revolution in Zimbabwe. Detail is illustrated in Table 5 below.

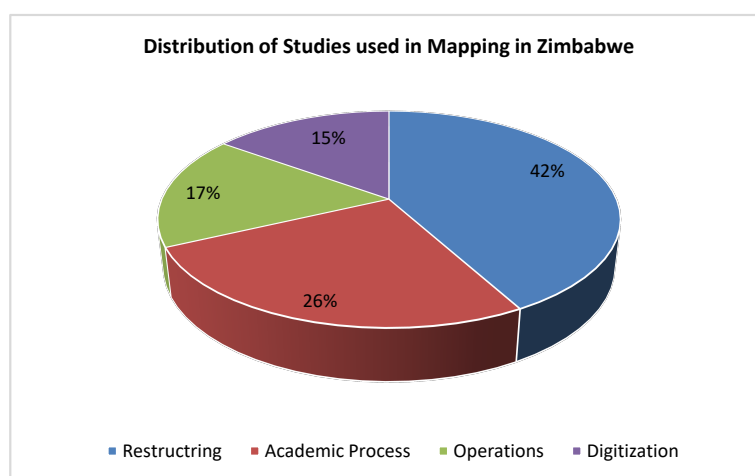Further distribution of these studies is shown in Figure 7 below.

Figure 7. Distribution of studies used in the mapping in Zimbabwe.

Table 5. Mapping with education revolution in Zimbabwe.

EDUCATION LEVELS	MAPPING WITH EDUCATION REVOLUTION IN ZIMBABAWE															
	Restructuring			Academic Process					Operations				Digitization			
	Regulations	Philosophy	Training	Supervision	Curriculum	Policies	Skills	Creativity	Self-Financing	Human Resource	Equipment	Efficiency	Digital Library	Smart Schools	Scientific Research	Center of Excellence
Education 1.0																
Education 2.0																
Education 3.0			✓							✓						
Education 4.0	✓		✓	✓		✓				✓	✓	✓			✓	
Education 5.0	✓		✓	✓	✓				✓				✓		✓	

Above-mentioned figure states the relevance of each education standard to its corresponding area in the education sector. First, 22% studies discussed in the literature review about restructuring the rules and regulations, modernize the teaching philosophy, and improve the process of training and supervision. Second, 15% studies discuss to improve the academic process to upgrade the curriculum, redefine the policies, and improve the skills and creativity. Third, 17% studies focused on the operations to promote self-financing, prepare skillful human resource, and provide best equipment to improve the efficiency. Lastly, 26% of the studies emphasized the importance of digitization to use the digital library, plan and prepare the smart schools, promote the scientific research culture in schools and make the educational environment a center of excellence.

13. Education 5.0 Implementation in Developing World—Sri Lanka

Since the COVID-19 hit the world, most of the developing counties further dip down economically and that affected the education sector as well. Sri Lanka is one of those countries who has been affected seriously and was actually in a serious financial default situation in the year 2022. Studied conducted in the recent past shows that the economic crunch actually started before the COVID-19 break up and pandemic further hit severely and the overall economic situation went to default.

In year 2016, Research and Development Branch of Ministry of Education, Sri Lanka officially stated that there are serious concerns at early education level, which is affecting the higher education. This is recommended by the authors that in 2015, that education sector at early and higher education level needs substantial efforts to make the academic environment ready for a long and sustainable education model to meet the country's economic and industrial growth. Researchers recommended that high quality of education centers should be setup, equipped with strong market oriented curriculum, properly trained staff by providing state of the art classroom environment for a long term and sustainable academic growth. This was thoroughly researched and recommended both at primary and higher level of education including and supported with the strong evidence (Research and Development Branch Ministry of Education Sri Lanka, 2016). (Kalamany & Pragnadarshana, 2016)

A study was conducted in year 2022, discussing the issues of overall education sector in terms of quality academic teaching including the other concern, which could affect the overall situation of the country. Study covered the education sector across the board, covering most the important aspects for better observation, assessment and results. Main purpose of study was to provide education to everyone at all levels by providing them quality education with skilled academic staff and state of the art classrooms. Study actually recommended a monitoring and control system for evaluation of academic activities based on result-oriented framework, which proved to be a strong base for a strong and sustainable academic growth at all levels (Awang, Taib, & Muda, 2020). Following are the com-

prehensive recommendations for improvement in the Sri Lankan education sector.

Table below was recommended based on a strong market research through an evidence-based policy, planning and enforcement for the improvement of overall education environment in Sri Lanka. Recent studies proved that there is big margin of improvement of overall educational system in Sri Lanka (Yang et al., 2022). Recent financial crises added the risk level to it, which is more worrying for the future of the country. Serious kind of efforts required at this time to rebuild the educational infrastructure to strengthen the educational environment, shown in Table 6 given below (Ministy of Education, 2020).

Table 6. Recommendations for improvement in education system.

MINISTRY OF EDUCATION RECOMMNENDATIONS FOR IMPROVEMENT IN EDUCATION

Education Policy:
- National education policy and rules & regulations enforcement and revision.
- School management committees for regular supervision.
- Restructuring school system to categorize primary and secondary schools both national and zonal education sector.
- Financial allocation for education development.

Equal Learning Opportunities:
- Equal learning opportunities for all both at primary and higher education level.
- State of the art learning facilities with comfortable environment.
- Quality education by skilled and professionally qualified teachers.
- Use of digital innovation through smart classrooms and e-libraries.
- Accommodation facilities for teachers in remote areas.

- Established National Professional Council for Education.
- Implemented professional license system for academic professionals.
- Sri Lanka Teacher Educators Service (SLTES), Sri Lanka Education Administrative Service (SLEAS): Filled vacancies; provided professional development opportunities.
- Special incentives for subject special and technology teachers.
- SLPS: Teachers promotions and professional development.

National Norms Policies:
- National policies enforcement for admissions, class and school-size.
- Provide basic facilities for schools.
- Schools upgradation to the national-level norms and standards.

Planning, RBM&E:
- Established evidence-based policymaking and planning culture.
- Established RBME framework.
- Developed policy for Education Management Information System (EMIS).
- Established SIS and National Education Management & Information System (NEMIS).

Teacher Management:
- Increasing professionally qualified teachers as per student ratio.
- Promoting National Colleges of Education (NCoEs) to degree awarding level.
- Providing financial allowance scheme for teachers serving in remote areas.

Institutional Infrastructure:
- Developed NCoEs, Teacher Training Colleges (TTCs) and Teacher Centers (TCs).
- Established a new NCoE for technology education.
- Established National Content Development Center.
- Upgraded facilities for Zonal Education Offices (ZEOs) and restructured zonal education structures.
- Reformed physical facilities of National Institute of Education (NIE).

Educational Budget:
- Priorities educational requirements to increase budget to GDP and TGE.
- School based financial support mechanism for most deserving student.
- Poverty reduction through sustainable educational development.

Students Performance by 2025:
- Student survival rate of grade 11 will be achieved 96%.
- General Certificates of Education (Ordinary Level) pass rate increased by 75% and GCE (Advance Level) pass rate will be increased 70%.

Stewardship:
- Strengthened School-Based Management (SBM), Enhanced Program for School Improvement (EPSI).
- Strengthened leadership capacities of school principals.

Developing countries are facing lot of issues in general and recent financial crises have affected the education sector of Sri Lanka. Recent research shows that the efforts made earlier for the improvements of education sector are on hold due to lack of financial resources availability. Priorities are changed during this financial crunch and government is trying to provide basic necessities to the people for the survival (Awang, Taib, & Muda, 2020).

Table 7 below shows the status of the implementation of Education 5.0 in Sri Lankan education system, which proves that Sri Lankan education system needs serious efforts to bridge this gap and bring the innovation to their existing education environment for a bright future. Detail is illustrated in the table below.

Further distribution of these studies is shown in Figure 8 below.
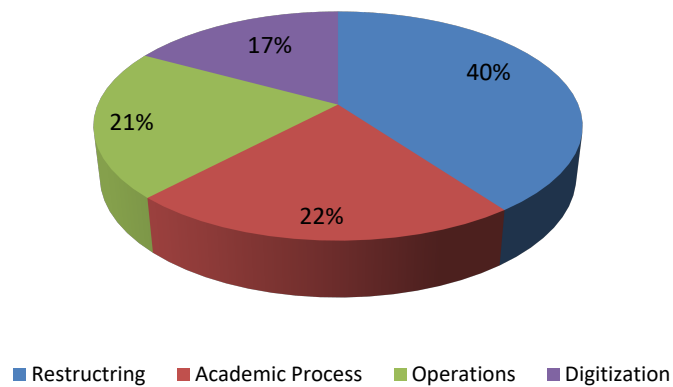
Distribution of Studies used in Mapping Sri Lanka

Figure 8. Distribution of studies used in the mapping in Sri Lanka.

Table 7. Mapping with education revolution in Sri Lanka.

EDUCATION LEVELS	MAPPING WITH EDUCATION REVOLUTION IN SRI LANKA															
	Restructuring				Academic Process						Operations		Digitization			
	Regulations	Philosophy	Training	Supervision	Curriculum	Policies	Skills	Creativity	Self-Financing	Human Resource	Equipment	Efficiency	Digital Library	Smart Schools	Scientific Research	Center of Excellence
Education 1.0																
Education 2.0																
Education 3.0			✓							✓						
Education 4.0			✓	✓							✓	✓			✓	
Education 5.0	✓			✓	✓				✓				✓		✓	

Above-mentioned figure states the relevance of each education standard to its corresponding area in the education sector. First, 40% studies discussed in the literature review about restructuring the rules and regulations, modernize the teaching philosophy, and improve the process of training and supervision. Second, 22% studies discuss to improve the academic process to upgrade the curriculum, redefine the policies, and improve the skills and creativity. Third, 21% studies focused on the operations to promote self-financing, prepare skillful

human resource, and provide best equipment to improve the efficiency. Lastly, 17% of the studies emphasized the importance of digitization to use the digital library, plan and prepare the smart schools, promote the scientific research culture in schools and make the educational environment a center of excellence.

14. Discussion

Education and businesses are interlinked with each other and technology is that additional raiser thin benefit to enhance and improve the quality of education. In order to realize and understand the inclusivity and quality of modern learning, it is very important to develop a strong technological base in the country's development. The blend of Education and Technology will embrace the maximum benefits of the academic learning and to prepare them most valuable and a strong candidate to meet the market needs. In this regards, restructuring the entire academic process is very essential, academic coaching methodologies are so advanced; it needs a strong digital support to provide the quality education. Education and Internet/Web both run in parallel in last few decades, both complement each other at variety of levels for the academic excellence. Use of artificial intelligence, robotics, machine learning and data analytics in the modern education is common phenomena today and will increase in the future for conducive and an immersive and interactive learning environment. Study focused on the overall innovation process of academic education, in terms of developing the rules and regulations. Study has stressed that the philosophy of education is totally changed and classrooms are an old fashion lecture deliverance, role of the teacher is a facilitator to guide and help the learners to get used to run and adopt the technology. Education 5.0 also caters the importance of curriculum development, policies etc. for advancement of the academic sector to modern stages. Study has shown that creativity, skillful development of the learner is the most important part of education. It needs a strong and coordinated effort to reduce the concerns of the learners in getting the most updated knowledge. Education 5.0 enforces the use of equipment to bring the efficiency by using the digital tools in education sector. Study also shows that the scientific research has the highest importance to bring the innovative ideas to add value in the education sector for bring the highest level of excellence.

Study has focused on different domains like business needs, technological developments required for the innovative education. Developed countries have established the rules and regulations at highest level in ministry of education, industry and the business. The focus is the identifying the key obstacles at any level and to bridge the gap for sustainable and reliable advancement in the education sector. Poor countries need to conduct more scientific research to observe and asses the current situation at all levels to propose different new ideas based on evidence based study outcomes.

Study results revealed that restructuring the overall education process, needs to frame rules and regulations to make the education environment more orga-

nized, training and supervision process must be improved. Academic curriculum must be upgraded; knowledge, skill and creativity should be considered one of the key aspects for an advance and industrious education. Operational requirements regarding privatizing the education sector under the well managed control system is highly recommended for preparing a confident human resource with providing the state of art technological base to the students in academic environment. Use of digital resources from the online libraries, establishment of smart schools and excelling the scientific research culture in education sector at different levels is highly needed to bridge the gap between the market and academic institutions.

Last but not the least, this paper being a concept paper in nature has given a base to identify the week areas through mapping details to further work for bridging the gap. Study did not use any statistical data, so it could be further extended to conduct a quantitative research to further identify the gaps and bridge them accordingly based on the statistical data analysis.

15. Conclusion

Initially study was planned to review the relevant literature of education and technology in developed and developing countries in the rejoin. It was also considered to get benefit of the literature and compose the study to address the real world issues and concerns of both developed and developing countries. As this modernization of education is one of the basic pillars of the growth of countries. Study results have shown that adapting the Education 5.0 will be highly beneficial for providing better education with the use of the best of technology. Restructuring the education environment, revolutionizing the academic process, incorporating the operational excellence in education sector, use of digital resources in education, intensifying the culture of scientific research for observing and assessing the continuous changing the world of business and education will definitely help to upgrade the education in any country.

For the current study, total of 46 research studies were found on social sciences databases in last around six years. Studies were mostly focusing on the education standards in the academic environment. PRISMA method was adopted to further scrutinize the studies based on certain criteria suitable for the current study, and total 32 studies were finally selected for the current research paper. Selection of countries both from developed and developing countries was purely based on the literature reviewed for the current study.

Research study provided a detail literature for better use of deploying Education 5.0 in academic environment of the country. Studies also gave insight of the Education 5.0 standard in different sectors by showing a mapping table linked with its basic benchmarks in both developed and developing countries. This point out the weak areas, needs to be addressed on priority for obtaining better results of bridging the gap between in implementation of Education 5.0.

Education 5.0 is in the phase of reforms in terms of updating the body of

knowledge, hence it is highly recommended that future studies must go further deeper to address the issues and concerns and bring up the doable solutions for the betterment of overall academic environment. Study was limited in nature being a conceptual research study, hence it could be further expanded to quantitative of qualitative research methodology for better observation and assessment.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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