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| RESEARCH ARTICLE

Educational Pedagogy Training for Newly Qualified Teachers: A Seminar Design

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| ABSTRACT
The current seminar design is designated for newly qualified teachers to be informed and to better understand pedagogy, educational technology, culture and education, and finally, matters of globalization in the educational sector. The current seminar will touch upon essential and trendy topics such as personalized learning, project-based learning, Culturally responsive teaching, inclusive education, the use of AI and gamification, and finally, the Internationalization of schooling.

| KEYWORDS
Pedagogy, Innovation, Technological Education, Inclusive Education

| ARTICLE INFORMATION
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1. Introduction
Several internal and external factors shape current educational systems that play a major role in remodeling 21st-century education. This seminar will refer to, explain and exemplify pedagogical methods, learning techniques and on-going debates about pedagogy, educational technology, culture and education, and finally, issues of globalization in the educational sector.

The current students have gone through some cultural, demographic, political, social and personal changes which impacted how they learn; they communicate knowledge and the methods used. Matters of pedagogy and new theories could help explain the change in learners' behaviors and the compatible change that should happen to cater to these changes. Pedagogy, as an independent field, theorizes on a number of teaching procedures, including personalized learning, which theorizes on the fact that learners are different and hence should be taught and given different types of attention and cater to their various needs. This pedagogical framework could also be accompanied by learners integrating into the job market through project-based learning projects. Current pedagogical models also call for online learning in parallel with classroom learning in flipped classrooms, a learning method that inverts assignments and learning pedagogies, which leaves students time and energy for project-based learning. While culturally responsible and responsive systems are paramount to accommodate today's learners changing needs, habits and culture.

Today, more than ever, a number of families move from one country to another, even from one continent to another, for many reasons: fleeing war, looking for better opportunities or just seeking change. This movement from one culture to a totally different one should be well taken care of, but applying changes to curriculums to make them more comprehensive and inclusive.

The debate about whether technology in education is important is no longer valid as technology is gaining more traction, weight and importance. AI-powered platforms and technologies could now penetrate the educational systems and completely change how we learn, automating basic teacher tasks and calling for greater efficacity. This could only be light if technology illiteracy is

reduced to the minimum. Many reforms and international cooperations work towards facilitating technological access and training to students, educators and administrators as a primary step towards a worldwide implementation.
Globalization and global citizens are the occupants of tomorrow's world. With the increased blurring of borders and frontiers cross-countries and the amalgamation offered by new technology, the world is becoming a melting pot for multiple cultures. This calls for global citizenship education and the Internationalization of educational systems.

All the latter, including pedagogy, technology, culture and globalization, play a partial role in redefining educational reforms and the changes imposed by 21st-century learners.

2. Objectives

There will be four educational units in the syllabus: pedagogy, culture, technology and globalization. Each unit has 5H allocated seminar presentations (2.5H) and in-seminar assessments. With a total of 8 sessions and 20H of seminar workshops, it is forecasted that the new teachers will develop a greater understanding of all topics at hand and be more sensitized to educational matters.

2.1 Unit 1

By the end of the 1st unit, teachers are expected to have learned to differentiate between a number of pedagogical approaches. This comprehension will lead to a deeper understanding of students' behavior within and outside the classroom. While the theory calls for a greater understanding of substantial knowledge on teachers' part, in-seminar activities, which serve as an assessment method, reflect teachers' in-classroom knowledge and behavior.

2.2 Objectives

- Grasp the meaning of pedagogy and training in education.
- Explore unorthodox learning styles such as flipped classrooms and personalized learning.
- Make teachers explore the frontiers of pedagogy through two different types of in-seminar assessments.

2.3 Unit 2

Culture as an ever-changing variable could account for changes currently happening to students worldwide. A culturally understanding and comprehensive teaching method helps students homogenize and lowers the inhibition filter among them. The main idea behind having culturally responsive teaching is to account for the cultural and demographic changes currently taking place.

2.4 Objectives

- A greater understanding of the growing importance of multiculturalism in education.
- Calling for an all-inclusive education through catering to different cultures.
- Gain a better comprehension of teaching-related cultural matters through in-seminar activities: roleplay and world café.

2.5 Unit 3

Technology has penetrated all domains, and education is no different. This unit aims to outline the importance of technology in teaching and further highlight technological advances such as using artificial intelligence and gamifying the learning process. This understanding could be a game changer in teachers' implementation of technology in the classroom environment.

2.6 Objectives

- Teachers would understand the concepts related to Technology integration in education.
- To review AI integration in education as a solution for future challenges.
- To explore the importance of conquering illiteracy to ensure access to education everywhere and always.

2.7 Unit 4

On the one hand, globalization is inevitable when it comes to education, ; it has breached all domains, and an online education market growth study is important to study its effects and measure its repercussions. On the other hand, teachers will explore how globally networked citizens could participate in lifelong learning.

2.8 Objectives

- Understand Internationalization and globalization in education and its relationship to education.
- Exploring the concept of global citizenship.
- Taking part in in-seminar assessments aims to constitute a deeper and greater understanding of the importance of globalization and international education.

3. Course outline with reading assignments

Table 1:
Pedagogy and training in education slide 14

Unit 1	Personalized learning	Bernacki, M. L., Greene, M. J., & Lobczowski, N. G. (2021). A Systematic Review of Research on Personalized Learning: Personalized by Whom, to What, How, and for What Purpose(s)? In *Educational Psychology Review* (Vol. 33, Issue 4). Educational Psychology Review. https://doi.org/10.1007/s10648-021-09615-8 Zhang, L., Basham, J. D., & Yang, S. (2020). Understanding the implementation of personalized learning: A research synthesis. *Educational Research Review*, *31*, 100339. https://doi.org/10.1016/j.edurev.2020.100339
	Flipped classroom	Bishop, J. L., & Verleger, M. A. (2013). The flipped classroom: A survey of the research. *ASEE Annual Conference and Exposition, Conference Proceedings*. https://doi.org/10.18260/1-2--22585 Schiller, N. A., & Herreid, C. F. (2013). Case studies and flipped learning. *Journal of College Science Teaching*, *42*(5), 62–66. https://www.researchgate.net/publication/306146143
	Project-based learning	Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, *102*(April), 101586. https://doi.org/10.1016/j.ijer.2020.101586 Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature.Project-based learning: A review of the literature. Improving Schools. *SAGE Journals*, *19*(3), 267–277. https://journals.sagepub.com/doi/abs/10.1177/1365480216659733
	Social-emotional learning	Ahmed, I., Hamzah, A. B., & Abdullah, M. N. L. Y. B. (2020). Effect of social and emotional learning approach on students' social-emotional competence. *International Journal of Instruction*, *13*(4), 663–676. https://doi.org/10.29333/iji.2020.13441a Barnes, T. N. (2019). Changing the Landscape of Social Emotional Learning in Urban Schools: What are We Currently Focusing On and Where Do We Go from Here? In *Urban Review* (Vol. 51, Issue 4). Springer Netherlands. https://doi.org/10.1007/s11256-019-00534-1
Unit 2	Culturally responsive teaching	Muñiz, J. (2019). Culturally Responsive Teaching: A 50-State Survey of Teaching Standards. *New America*, *March*, 2–51. Donahue-Keegan, D., Villegas-Reimers, E., & Cressey, J. M. (2019). Integrating Social-Emotional Learning and Culturally Responsive Teaching in Teacher Education Preparation Programs: The Massachusetts Experience So Far. *Teacher Education Quarterly*, *46*(4), 150–168. https://www.jstor.org/stable/26841580
	Multicultural Education	O'Leary, E. S., Shapiro, C., Toma, S., Sayson, H. W., Levis-Fitzgerald, M., Johnson, T., & Sork, V. L. (2020). Creating inclusive classrooms by engaging STEM faculty in culturally responsive teaching workshops. *International Journal of STEM Education*, *7*(1). https://doi.org/10.1186/s40594-020-00230-7 Parkhouse, H., Lu, C. Y., & Massaro, V. R. (2019). Multicultural Education Professional Development: A Review of the Literature.

		Review of Educational Research, *89*(3), 416–458. https://doi.org/10.3102/0034654319840359
	Inclusive education	Lambert, S. R. (2020). Do MOOCs contribute to student equity and social inclusion? A systematic review 2014–18. *Computers and Education*, *145*(October 2019), 103693. https://doi.org/10.1016/j.compedu.2019.103693 Martin, D. B. (2019). Equity, inclusion, and antiblackness in mathematics education. *Race Ethnicity and Education*, *22*(4), 459–478. https://doi.org/10.1080/13613324.2019.1592833 Lindner, K. T., & Schwab, S. (2020). Differentiation and individualization in inclusive education: a systematic review and narrative synthesis. *International Journal of Inclusive Education*, *0*(0), 1–21. https://doi.org/10.1080/13603116.2020.1813450
Unit 3	AI in education	Xu, W., & Ouyang, F. (2022). The application of AI technologies in STEM education: a systematic review from 2011 to 2021. *International Journal of STEM Education*, *9*(1). https://doi.org/10.1186/s40594-022-00377-5 Zhang, K., & Aslan, A. B. (2021). AI technologies for education: Recent research & future directions. *Computers and Education: Artificial Intelligence*, *2*, 100025. https://doi.org/10.1016/j.caeai.2021.100025
	Digital literacy	Reddy, P., Sharma, B., & Chaudhary, K. (2020). Digital literacy: A review of literature. *International Journal of Technoethics*, *11*(2), 65–94. https://doi.org/10.4018/IJT.20200701.oa1 Li, M., & Yu, Z. (2022). Teachers' Satisfaction, Role, and Digital Literacy during the COVID-19 Pandemic. *Sustainability (Switzerland)*, *14*(3). https://doi.org/10.3390/su14031121
	Digital illiteracy and pandemics	Tohara, A. J. T. (2021). Exploring Digital Literacy Strategies for Students with Special Educational Needs in the Digital Age. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(9), 3345–3358. https://www.turcomat.org/index.php/turkbilmat/article/view/5741 Buckingham, D. (2020). Epilogue: Rethinking digital literacy: Media education in the age of digital capitalism. *Digital Education Review*, *37*, 230–239. https://doi.org/10.1344/DER.2020.37.230-239
	Gamifying Education	Toledo Palomino, P., Toda, A. M., Oliveira, W., Cristea, A. I., & Isotani, S. (2019). Narrative for gamification in education: Why should you care? *Proceedings - IEEE 19th International Conference on Advanced Learning Technologies, ICALT 2019*, *44*(November), 97–99. https://doi.org/10.1109/ICALT.2019.00035 Hakak, S., Noor, N. F. M., Ayub, M. N., Affal, H., Hussin, N., ahmed, E., & Imran, M. (2019). Cloud-assisted gamification for education and learning – Recent advances and challenges. *Computers and Electrical Engineering*, *74*, 22–34. https://doi.org/10.1016/j.compeleceng.2019.01.002
Unit 4	Online Education Market Growth	Ndofirepi, E., Farinloye, T., & Mogaji, E. (2020). Marketing mix in a heterogenous higher education market: A case of Africa. *Understanding the Higher Education Market in Africa*, 241–262.

		Li, Z., & Suping, W. (2022). From Traffic "Enclosure" to Cash Realization : Market Patterns and Investment Insights of China's Digital Content Industry in 2020–2021. *Publishing Research Quarterly*, *38*(2), 326–348. https://doi.org/10.1007/s12109-022-09878-1
	Internationalization of higher education	De Wit, H. (2019). Internationalization in Higher Education, a Critical Review. *SFU Educational Review*, *12*(3), 9–17. https://doi.org/10.21810/sfuer.v12i3.1036 de Wit, H. (2019). Evolving concepts, trends, and challenges in the Internationalization of higher education in the world. *Voprosy Obrazovaniya / Educational Studies Moscow*, *2019*(2), 8–34. https://doi.org/10.17323/1814-9545-2019-2-8-34
	Global citizenship in education	Pashby, K., Costa, M., Stein, S., Andreotti, V., Pashby, K., Costa, M., Stein, S., Andreotti, V., Pashby, K., Costa, M., & Stein, S. (2020). *A meta-review of typologies of global citizenship education A meta-review of typologies of global citizenship education*. *0068*. https://doi.org/10.1080/03050068.2020.1723352 O'Dowd, R. (2020). A transnational model of virtual exchange for global citizenship education. *Language Teaching*, *53*(4), 477–490. https://doi.org/10.1017/S0261444819000077

4. Pedagogy and training in education

4.1 Personalized learning

As a pedagogical aspect, personalized learning establishes the concept of understanding learners' needs and catering to them. This pedagogical tool has long been considered a part of 'The Multiple Intelligences Theory continua, which argues that learners are different. Hence, their learning needs should be met differently(Shemshack & Spector, 2020). Personalized learning has always existed since the appearance of education. Still, with the involvement of theories such as student centred-learning, personalized learning has taken a different dimension to merge customizing the instruction process with meeting individual needs and goals. Studies have found that once you provide for students with different wants and needs, it not only motivates them but also makes them more engaged and involved in the learning process (Pontual Falcão et al., 2018; Shemshack & Spector, 2020). Personalized learning is about taking into account a number of variables that take part in the learning, including but not limited to: environment (face-to-face or online), materials (structured-course-based or inductive learning), goals, skills, personal experiences and cultural differences (personalized learning by whom). The different learner characteristics 'Liquify' and dissolve when online learning is the main teaching method, which makes adapting the teaching method to different students 'needs' troublesome(L. Zhang et al., 2020).

4.2 Flipped classroom

Flipped classrooms as an instructional strategy came to redefine educational goals and redistribute objectives behind parties involved in education, including teachers, students and administrators. Flipped classroom strategy calls for reversing roles; students in inverted classrooms are asked to fill in homework at the school while preparing and execute presentations, attend online classes and work collaboratively online with their peers (Akçayır & Akçayır, 2018).

Flipped classrooms are mostly conducted by forming groups of students who work, interact and learn collaboratively; the aim is to make students at the centre of the learning and knowledge-acquisition process. The teacher's role deviates from the sole knowledge source to the students by actively listening to their questions and inquiries (Bishop & Verleger, 2013).

The flipped classroom advantage is that a large portion of it could be automated, as it is made up of two components; an easily automated part which is the course delivery, which could be substituted by online video lectures, seminars and online project-based learning, while the second part which can't be automated highly depends and teachers' input and deliverance of classroom activities the flipped classroom a survey (Akçayır & Akçayır, 2018).

4.3 Project-based learning

Project-based learning (PJBL) is a pedagogical approach to education where learning revolves around students being actively involved in matters that require problem-solving, engaging in a project with a group of colleagues and professional skills. Project-based learning aims to prepare freshly graduated and undergraduate students for the job market and equip them with the

necessary hard and soft skills for easy and swift deployment in the professional world (Guo et al., 2020). While Project-based learning, or called Problem-based learning, diverges from traditional teaching methods, including strict curriculum and pre-appointed roles, it is an opportunity for learners to endeavour through the work environment and in a professional experience. Studies found that students in administration, nursing, EFL, and Engineering have found PJBL useful in providing them with access to skills that can only be learnt through real-life interaction. Furthermore, besides hard technical skills, a number of soft skills were reported to have been developed among students, including problem-solving, critical thinking, collaboration, teamwork, and life-long learning (Guo et al., 2020; Vogler et al., 2018).

4.4 Social Emotional Learning

Social-emotional learning is a soft skill set to support students' emotional awareness. These skills include self and surrounding environment awareness (to be able to navigate and understand others and personal emotions), self and anger management (control one's emotions and temper, seek help when needed), relational management (including communication skills and building and maintaining relationships), and finally responsibility and decision making (problem-solving, personal, group and social responsibility) (Ahmed et al., 2020).

If educators can understand and cater to learners' knowledge needs but also needs outside the realm of the classroom. It has been found that low to medium families with children of school age are at great risk of social, emotional, behavioural and academic problems(Bailey et al., 2019).

The growing need for flexible and resourceful citizens has become the challenge of the 21st century; research has concluded that youth should be more involved in societal matters and should enjoy social and emotional awareness (promoting sustainable social). New and unprecedented challenges are being imposed on today's young learners. Hence, UNESCO is widely sharing programs about social-emotional learning to hopefully have a long-lasting effects on the coming generations(Ferreira et al., 2020).

Figure 1

Pedagogy and training in education slide 1

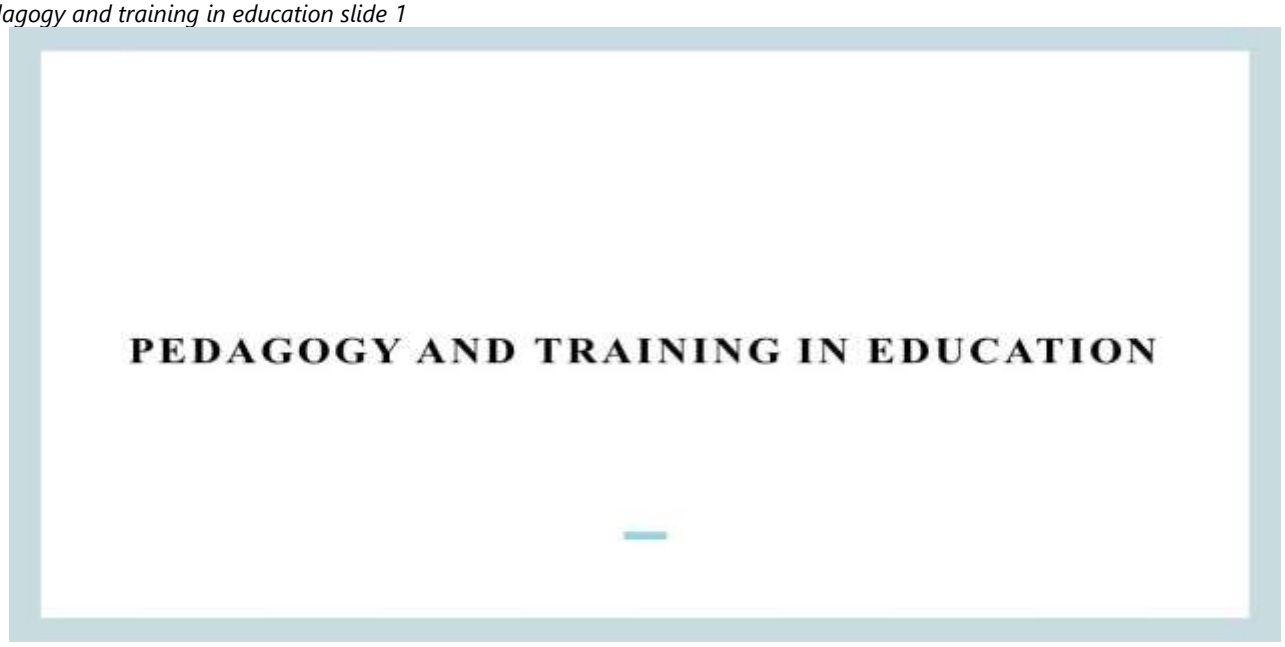

Figure 2

Pedagogy and training in education slide 2

Figure 3

Pedagogy and training in education slide 3

Figure 4

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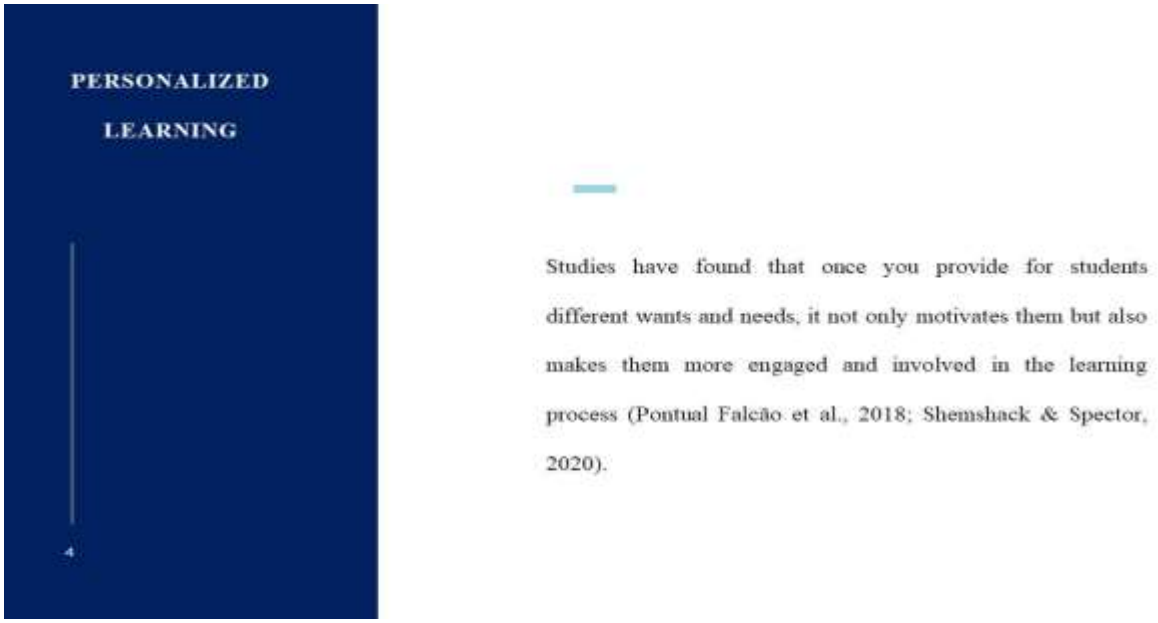

Figure 5

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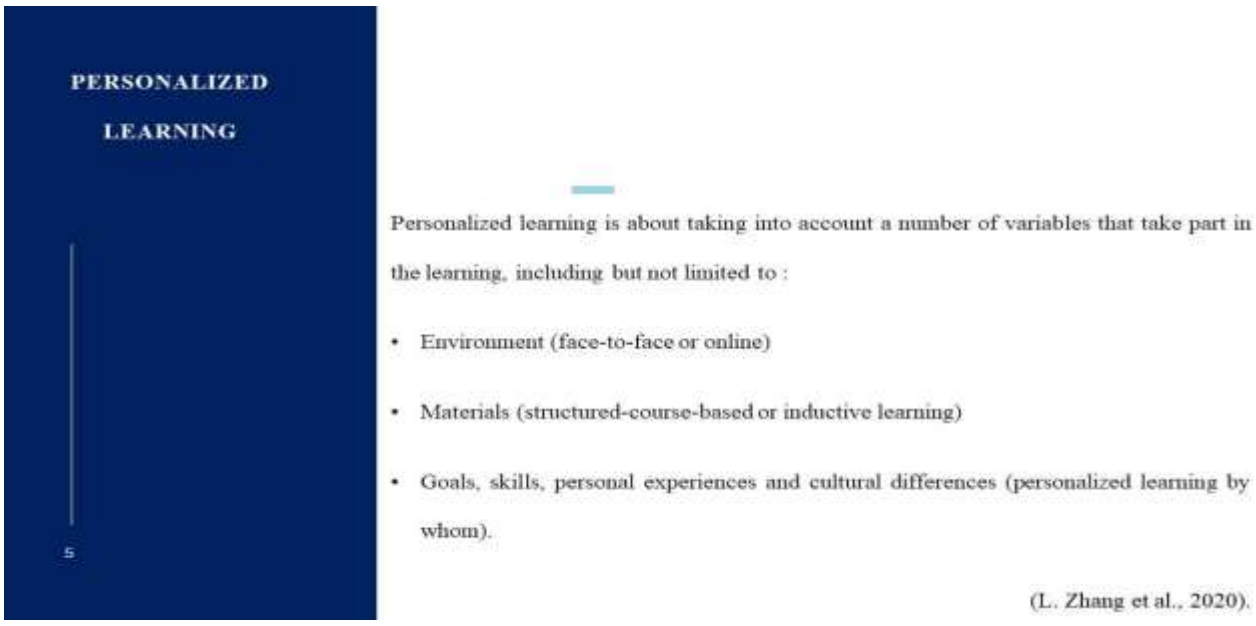

Figure 6

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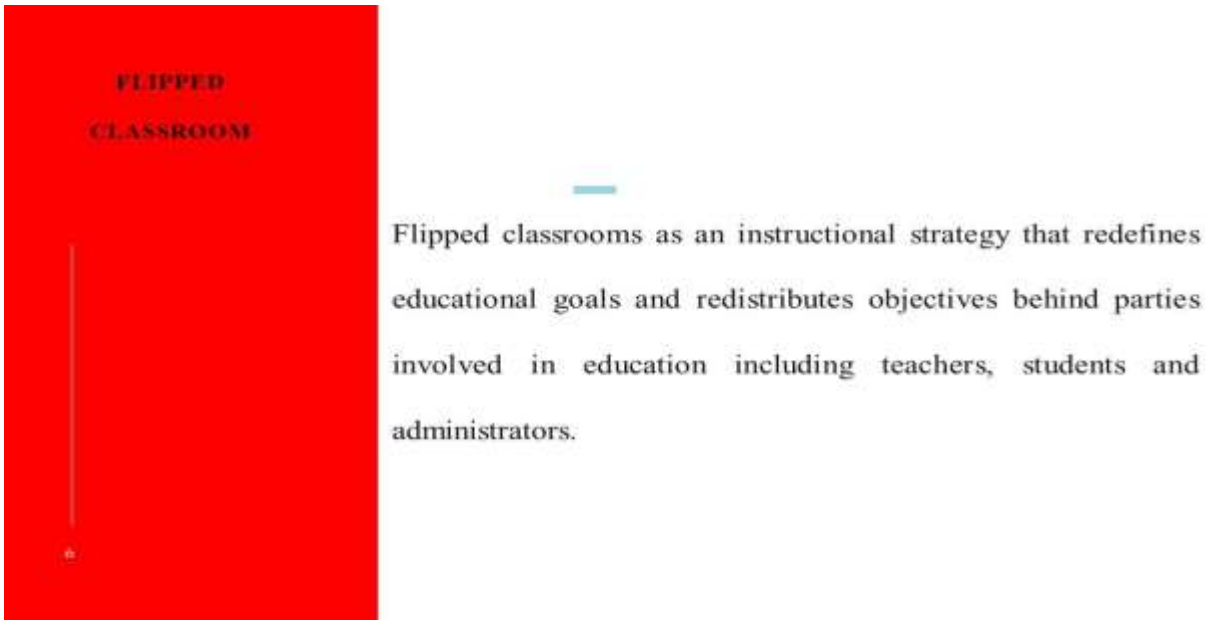

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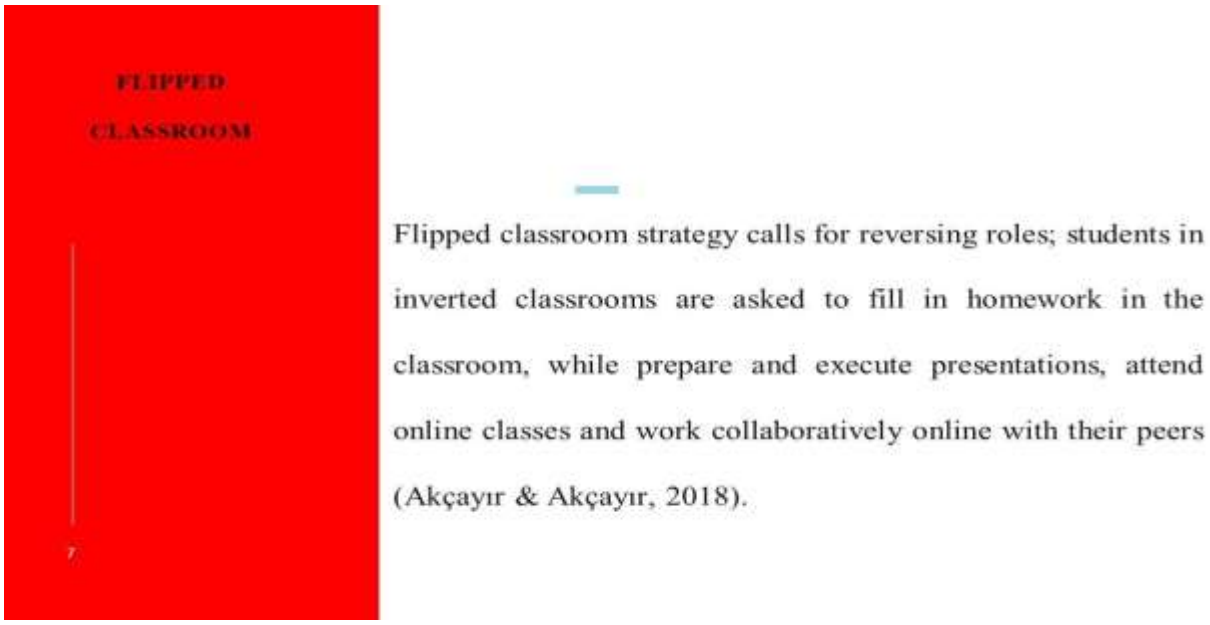

Figure 8

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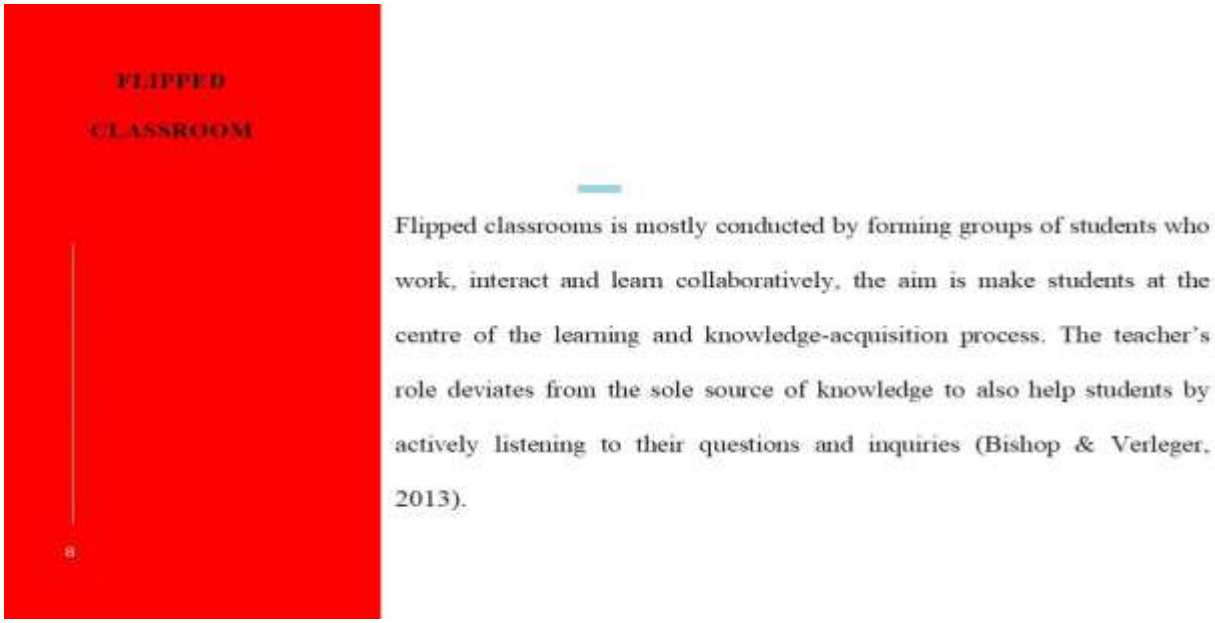

Figure 9

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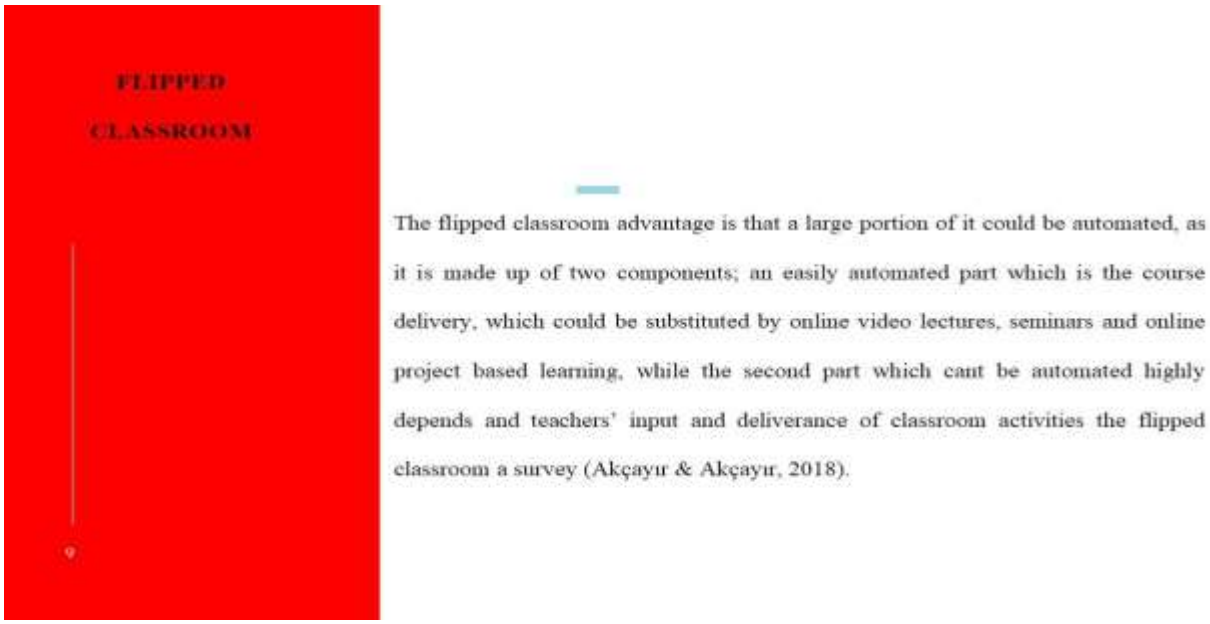

Figure 10

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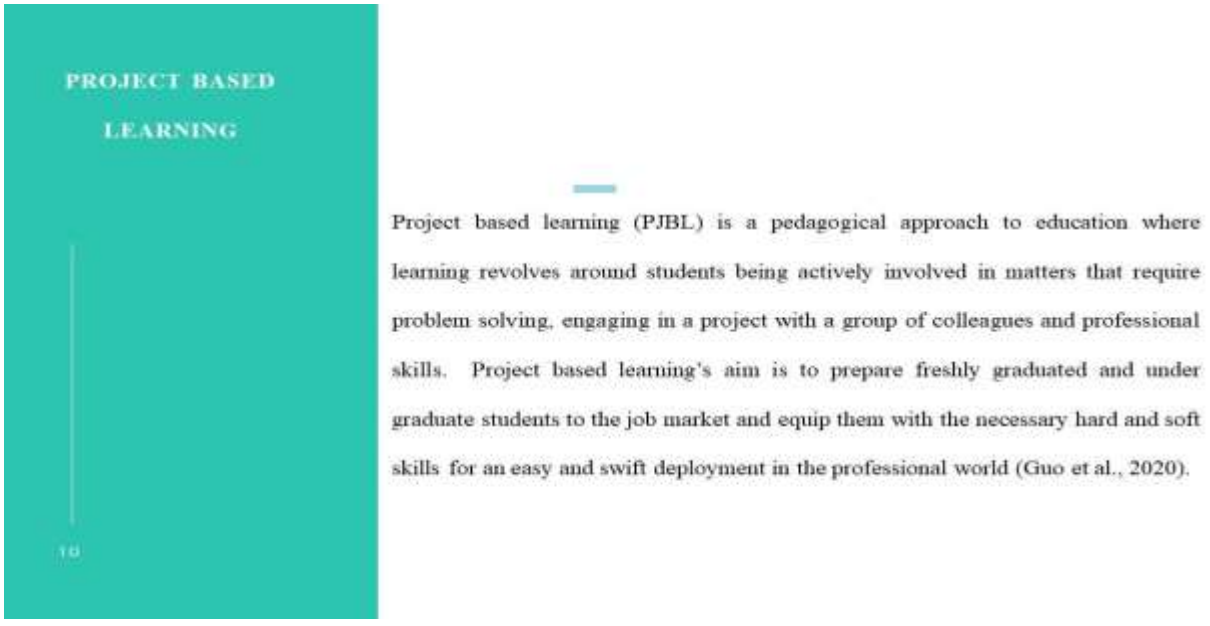

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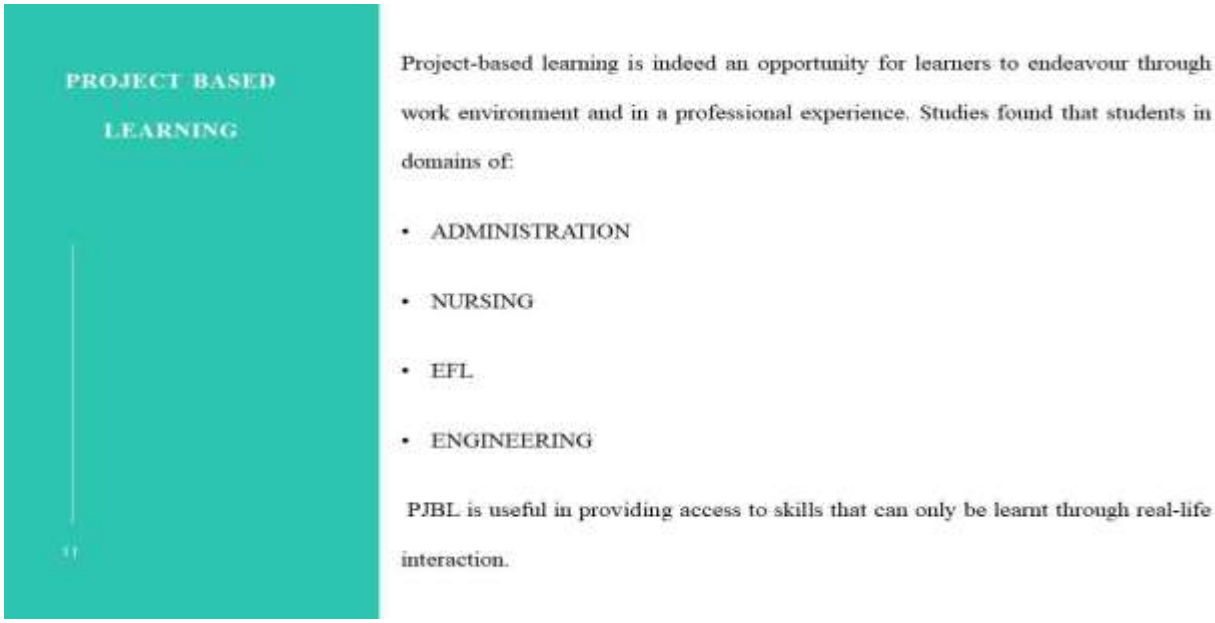

Figure 12

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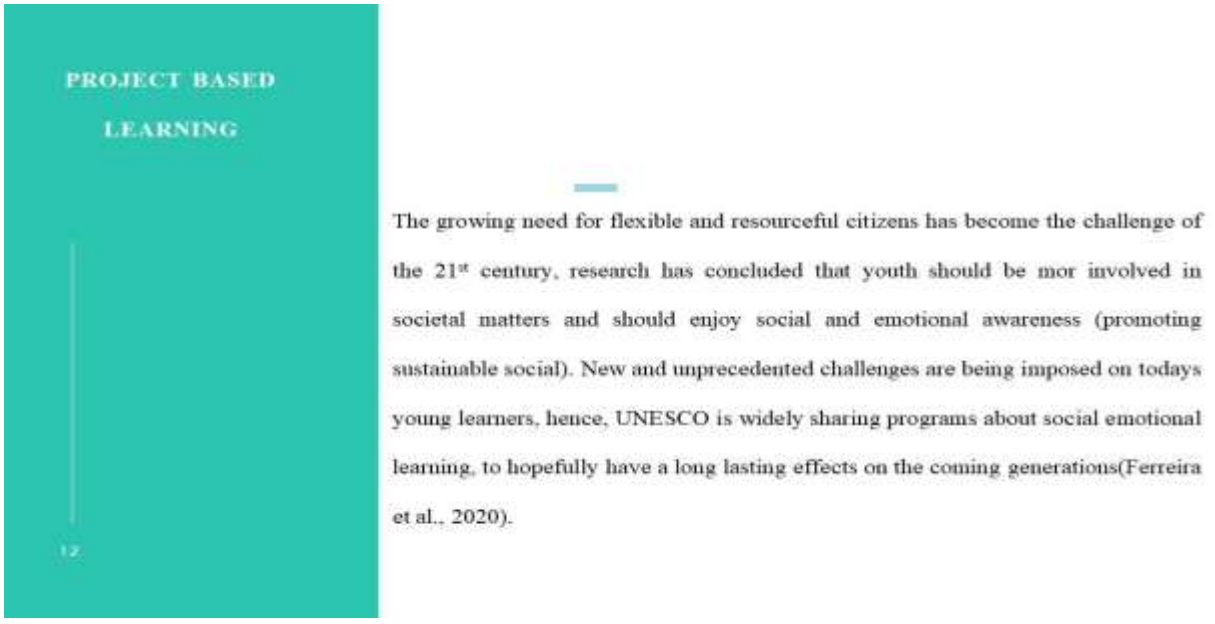


4.5 Assessment / in-seminar activities:
4.5.1 Session 1: Pedagogy
Duration: 2.5 hours
Objective: To explore the concepts of personalized learning and other pedagogical methods and its benefits for students.

Exercise 1: Personalized Learning Inquiry
Instructions:
Escape Room: Teachers will work in teams to "escape" the virtual classroom by finding clues related to the pedagogical concepts around the room. Indications can include articles and activities demonstrating flipped classrooms, project-based learning, etc.

Exercise 2: pedagogical methods
Instructions:
Speed Dating: Teachers rotate between multiple stations, each representing one of the pedagogical approaches. Each station has 2-3 minutes to discuss key tips and strategies for that approach with an "expert" facilitator.

5. Culture and education

5.1 Culturally responsive teaching

Culture overlaps with education in several aspects, and culturally responsive teaching (CRT) is the answer to the Internationalization and globalization of education. The growing need to provide students with the skillset and the tools to build on their cultural and linguistic competencies. Racial, cultural and ethnic inequalities persist worldwide(Cruz et al., 2020). In the USA, it has been found that culturally and linguistically diverse (CLD) students score below non-Hispanic White students in math and reading (an examination of teachers). Furthermore, several studies concluded that teachers and educators who incorporate a culturally responsive teaching-friendly course encourage inclusive and equitable education, which is indicated through students' academic progress(Cruz et al., 2020). However, research on Teachers' multicultural attitudes and perspective taking in culturally responsive teaching concluded a significant correlation between teachers' ability to reflect a culturally responsive teaching method and students' outcomes in culturally heterogeneous areas(Abacioglu et al., 2020).
In a nationwide study in the USA about the importance of culturally responsive teaching, it has been found that some of the key competencies to unlock a culturally balanced education are,
Reflect on one's cultural lens, Recognize and redress bias in the system, Draw on students' culture to share curriculum and instruction, and Bring real-world issues into the classroom(Muñiz, 2019).

5.2 Multicultural Education

Multicultural education is the amalgamation of three main points: an educational reform, a concept, and the process of acquiring and implementing the new cultural reforms. Multicultural education stands for the idea that all students, no matter their gender, ethnicity, culture, or race, have an equal chance to access education and learn in a school. However, multicultural education rose to change how some students could be privileged in accessing education because of some characteristics(Banks & Banks, 2019). In a statement about the representativeness on multicultural education, we could conclude that this method of education is best suited in countries that have multicultural societies, and understanding culture is a key to an enhanced education(Banks & Banks, 2019):

> ''I think the best way to learn about a multicultural society is to study many cultures. If during class we studied one culture a day, we might scratch the surface on what it would be like to be informed of and about numerous cultures.''

This disruptive approach to education could minimize the effects of globalization. Hence, a positive attitude towards multicultural education from professors and educators plays an important role in the classroom environment(Karacabey et al., 2019).
However, outcomes from many studies on teachers' perception of multicultural studies report that some teachers did not particularly enjoy multicultural education implementations. Others claimed that science-oriented classes are ''objective'' and, therefore, not related to issues of cultural diversity.

5.3 Inclusive education

Equity and inclusion have risen in the last few decades, yet it is still debatable whether substantial progress has been made. Today's inclusion discourse in education is closely linked to providing all students with high-quality learning opportunities (Calabrese Barton & Tan, 2020). The following quotes are by students who are 13 and 12 years old, respectively (Calabrese Barton & Tan, 2020):

> ''When you walk into some classrooms, you feel they don't want you there. (Sana, 13-year old).''
> ''Just because my friends don't speak English they don't count. I see it everywhere. . . . Like my friend Kiera has so many ideas and no one even knows it. (Valia, 12-year-old).''

From the above quotes, it can be deduced that inclusion discourse is about giving voice to the voiceless and that internal classroom laws and regularities could directly affect how students learn in the school environment(Calabrese Barton & Tan, 2020).
On the other hand, Massive Open Online Classes (MOOCs) provide contemporary solutions to modern problems. Online education is leading towards giving access to students who may not otherwise have access(Lambert, 2020). Serving socio-economically disadvantaged students has been the starting point for a snowballing chain of actions that has led a number of education institutions globally to design and implement programs with more equitable and inclusive educational opportunities (Lambert, 2020).

Figure 13

Culture and Education slide 1

Figure 14

Pedagogy and training in education slide 2

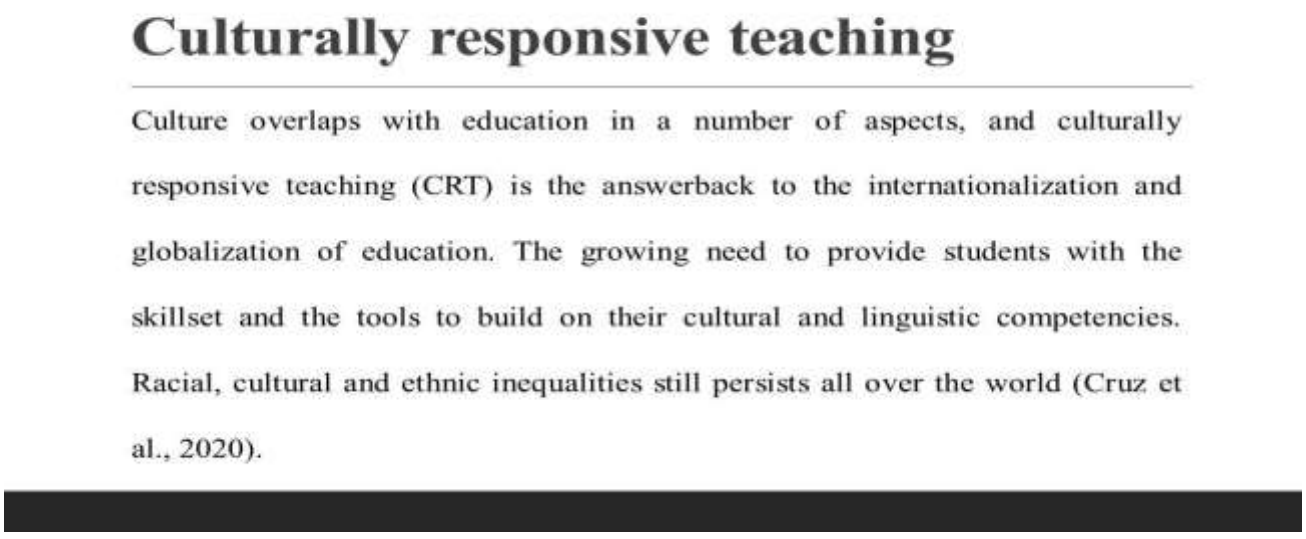


Figure 15

Pedagogy and training in education slide 3

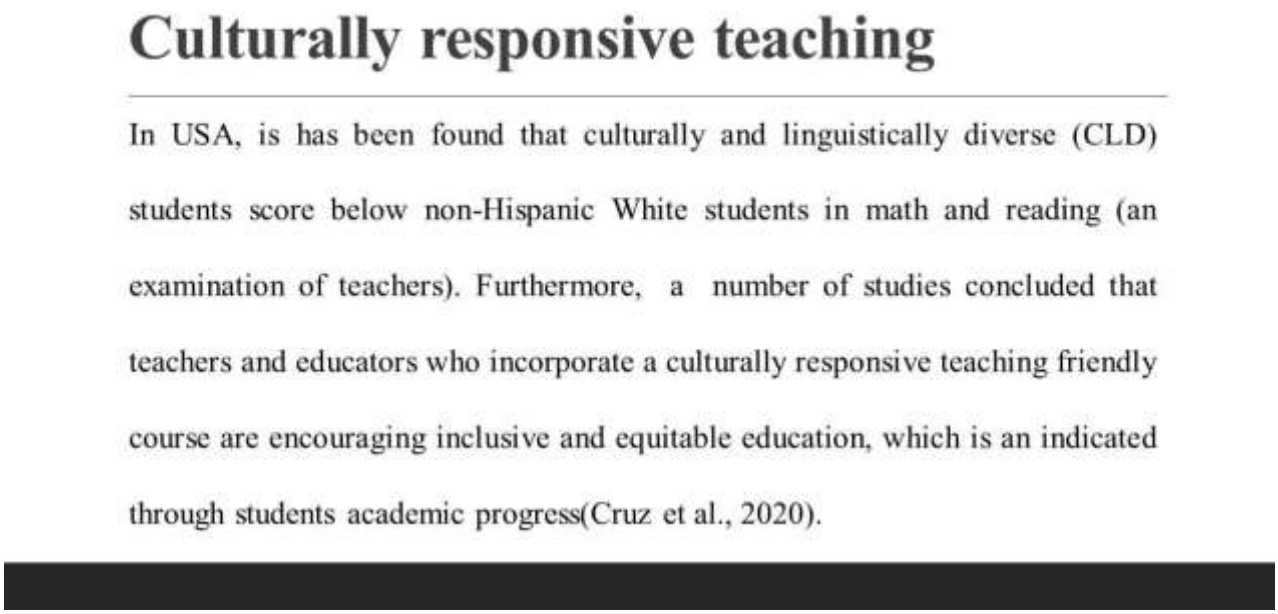


Figure 16

Pedagogy and training in education slide 4

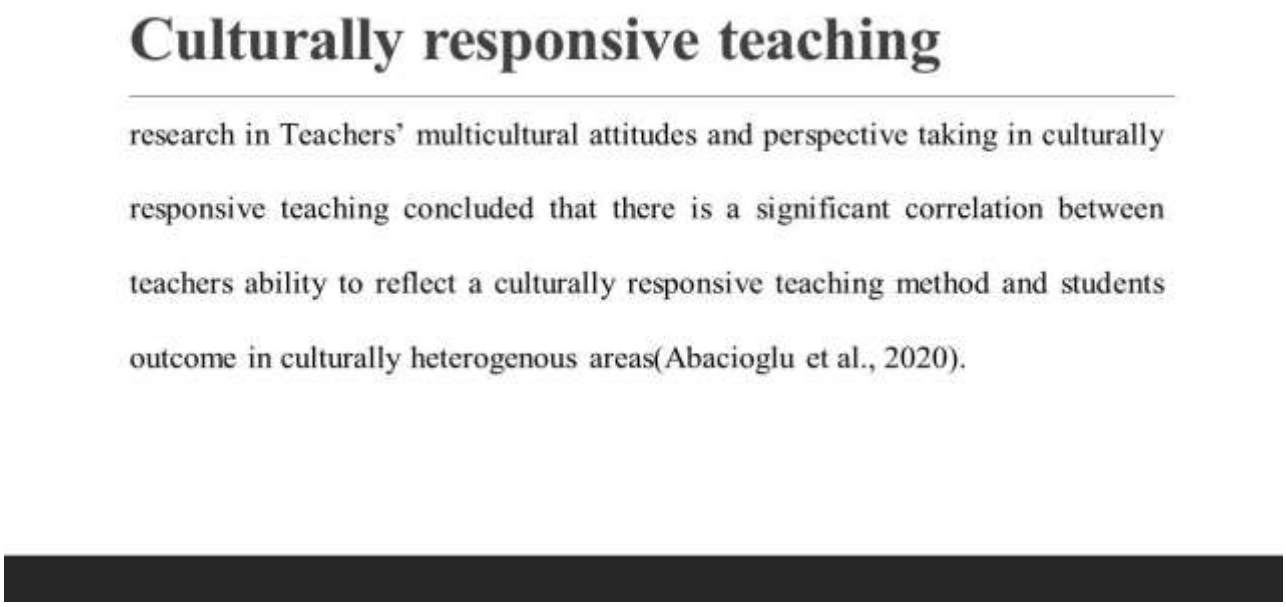


Figure 17

Pedagogy and training in education slide 5

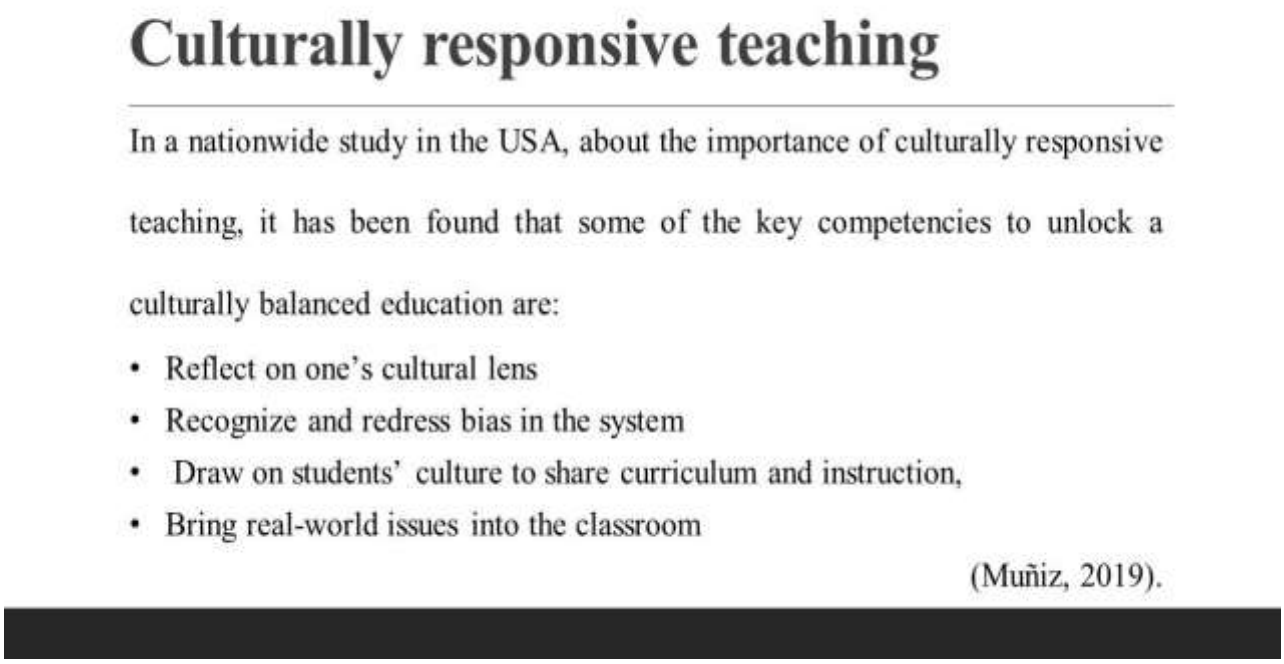


Figure 18

Pedagogy and training in education slide 6

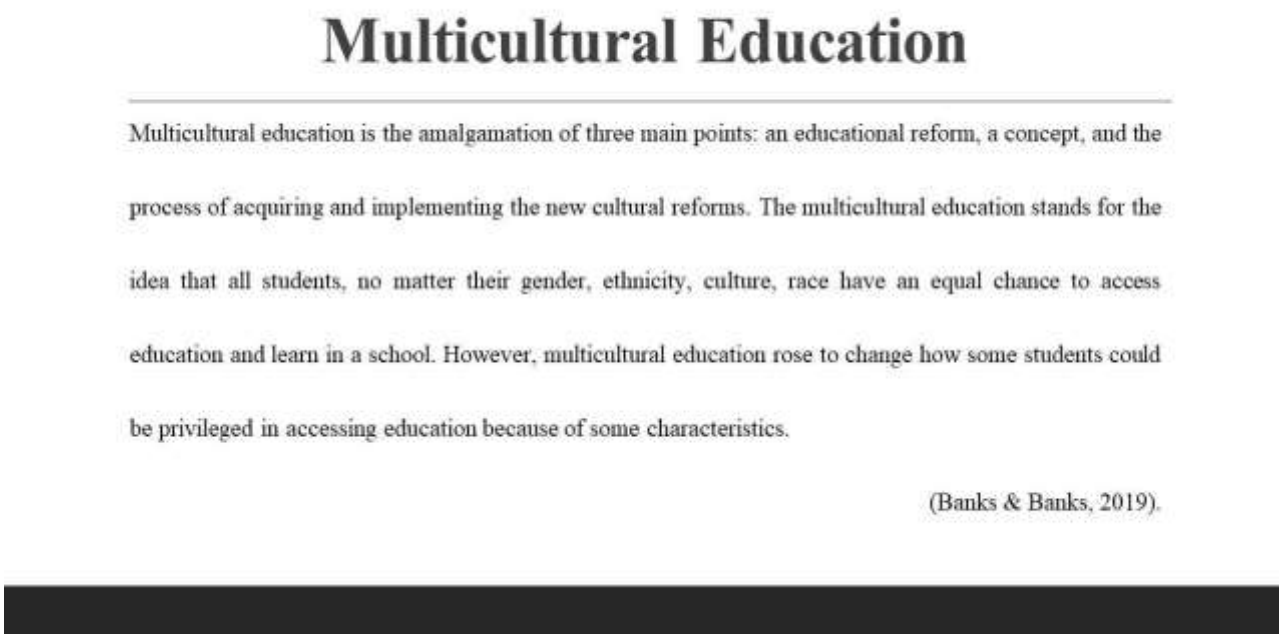


Figure 18

Pedagogy and training in education slide 7

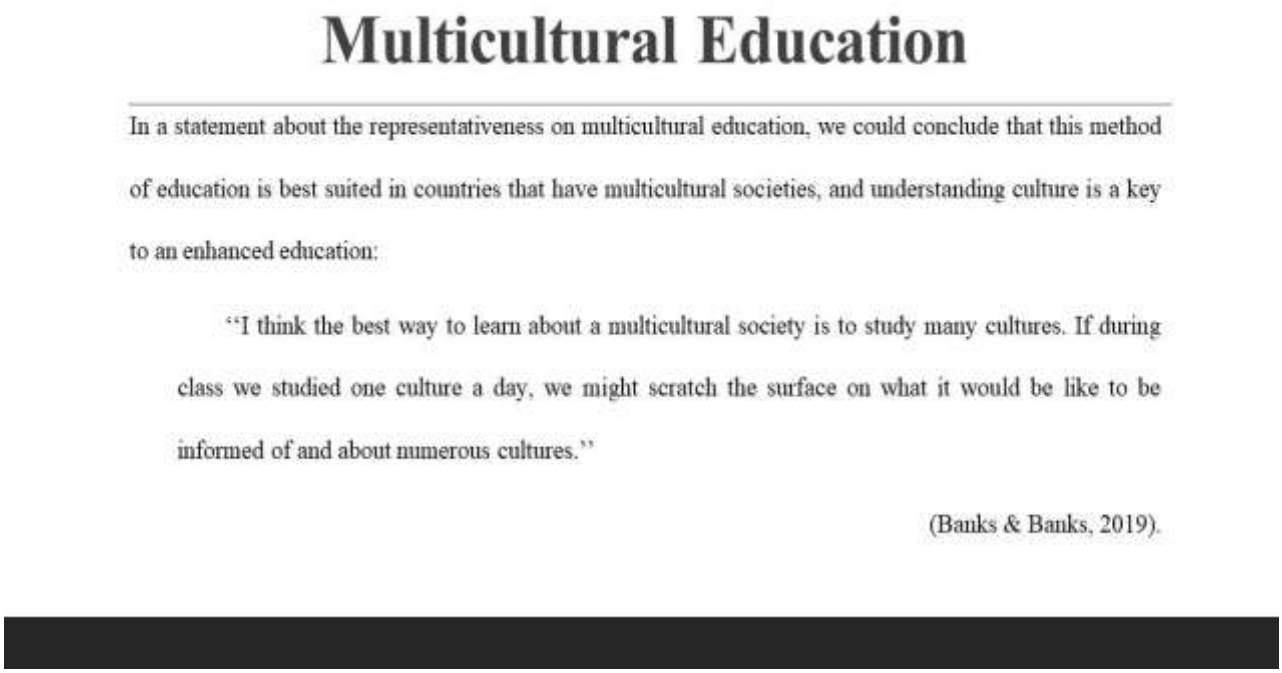


Figure 19

Pedagogy and training in education slide 8

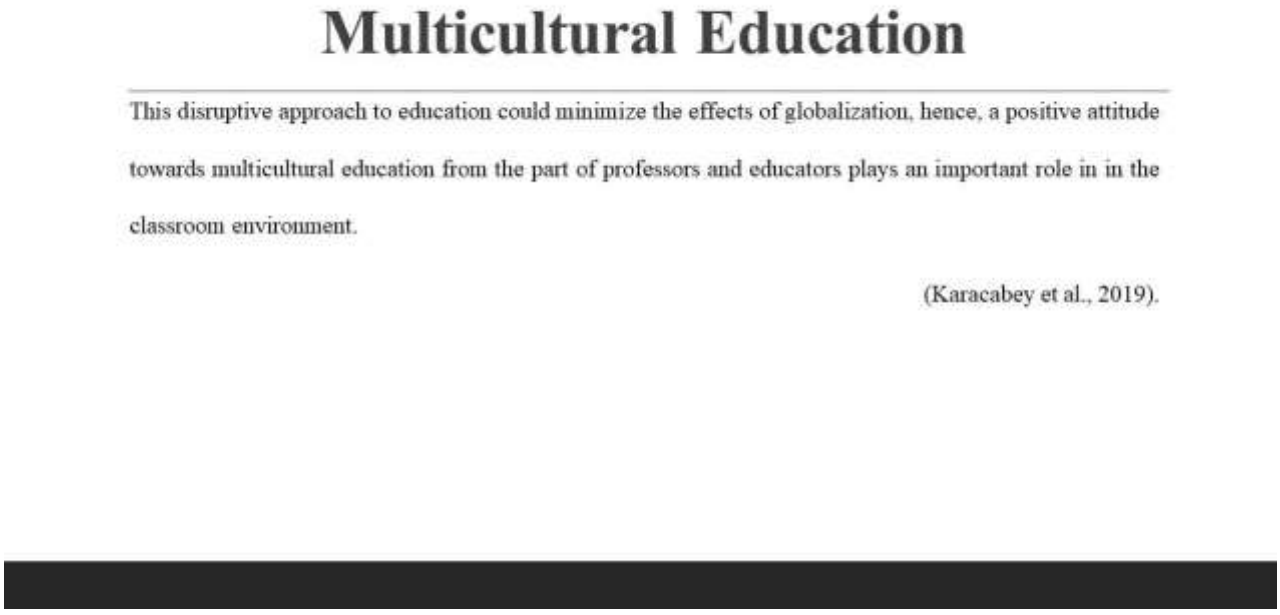


Figure 20

Pedagogy and training in education slide 9

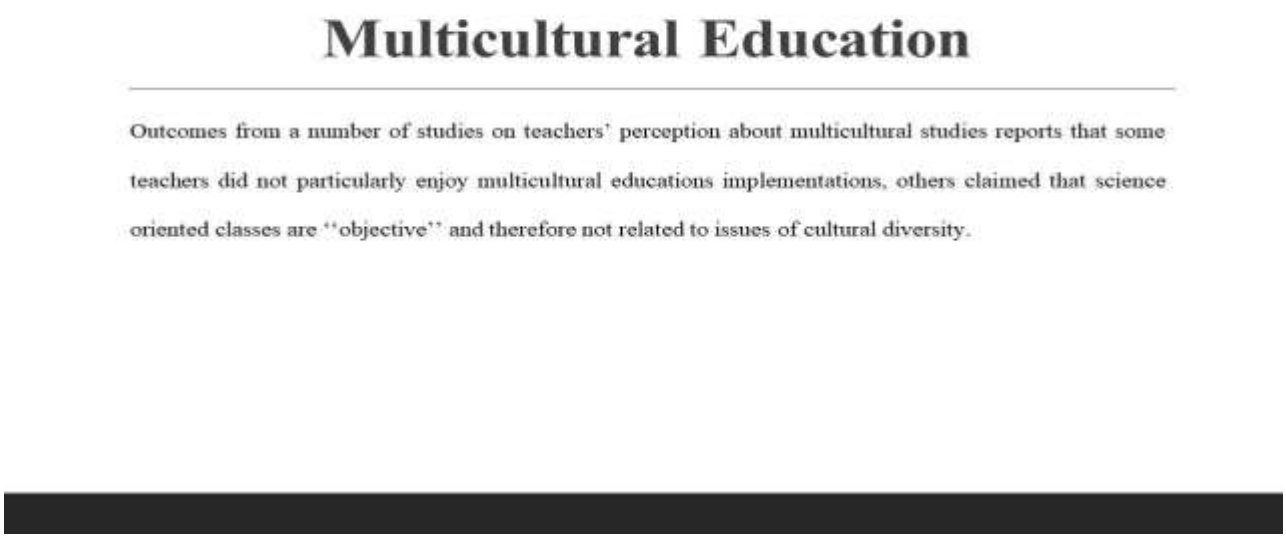


Figure 21

Pedagogy and training in education slide 10

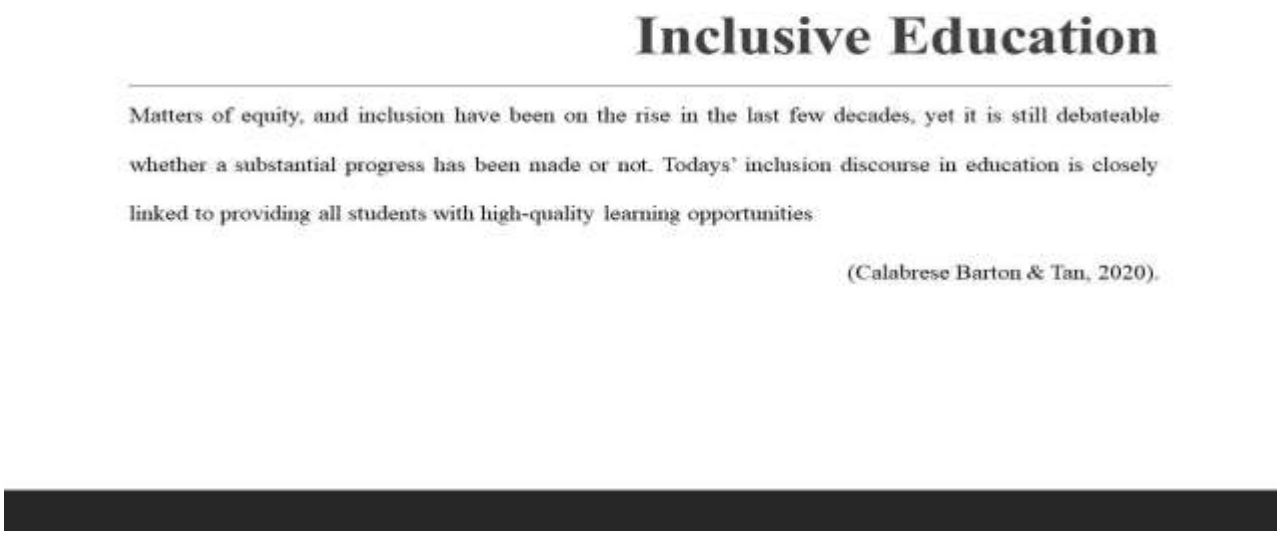


Figure 22

Pedagogy and training in education slide 11

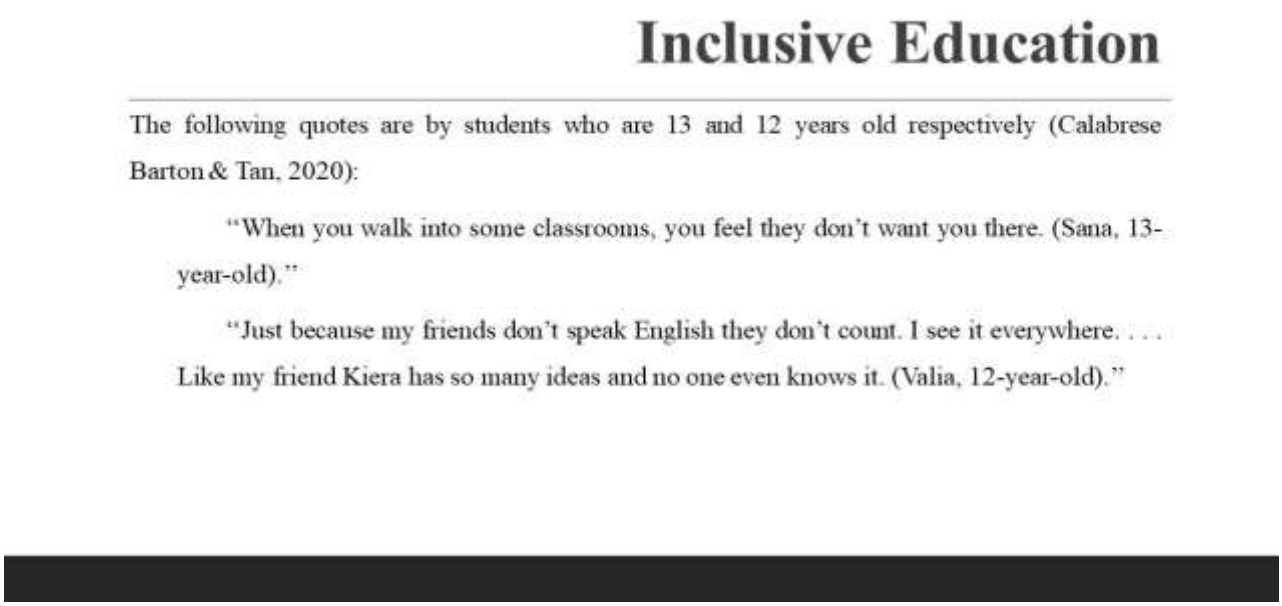
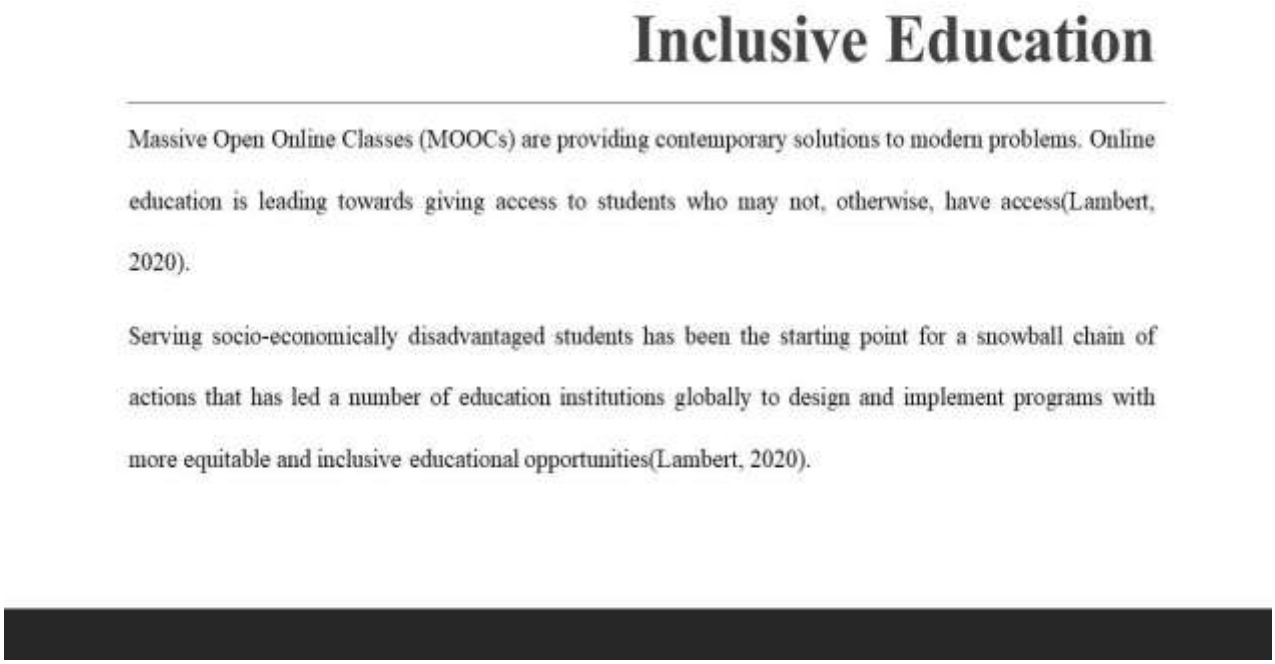


Figure 23

Pedagogy and training in education slide 12



5.4 Assessment / in-seminar activities:

5.4.1 Session 2: Culture and Education
Duration: 2.5 hours
Objective: To understand the concepts of multicultural education and its role in creating inclusive and culturally responsive classrooms.

Exercise 1: Culturally responsive teaching
Instructions:
World Cafe: Teachers walk between small group discussions focused on different aspects of culturally responsive teaching. As they move, they add their insights to previous groups' ongoing notes.

Exercise 2: Multicultural Education Inquiry
Instructions:
Role Play: Teachers act scenarios demonstrating culturally insensitive teaching practices. Then they re-do the scenarios applying culturally responsive strategies.

6. Technology and Education
6.1 AI in education
The search for adequate use of AI in education (AIED) has been the subject of scrutiny for 30 years now. The topic has raised much controversy among learners and educators as it touches upon questions of ethics, privacy and the lack of human judgement (intelligence unleashed). AI came with the promise of introducing computational calculations on student follow-ups, and the aim is to predict student outcomes using AI and respond to these predictions accordingly. This could disrupt education unprecedentedly (Luckin et al., 2016).

AI in educational systems could virtually take a number of forms and shapes. An article that compiled 40 articles on AI and Education concluded the main points of its main use cases (K. Zhang & Aslan, 2021):

- Chatbot
- Expert systems
- Intelligent tutors or agents
- Machine learning
- Personalized learning systems or environments
- Visualizations

The use of AI in education has many dimensions and several aspects such as such as teacher feedback, automatic grading systems, and adaptive learning; while also supporting and improving distance education when combined with other intelligent systems(Limna et al., 2022).

6.2 Digital literacy
The growing need to call for changes and implement new digital technologies into education has left policy makers and shareholders recognize and call for a major implementation of digital media literacy courses among educators as well as students.

Media literacy for education purposes aims for teaching (Buckingham, 2020):

- Media literacy in sustained programs of teaching and learning.
- The manipulation of digital technology hardware and software while focusing on developing students' critical thinking skills.
- To implement media literacy courses from an early age and develop them as students grow.
- Implement coding languages into media literacy as in enhances students critical thinking skills.

6.3 Digital illiteracy and pandemics
Once again, Digital literacy has proven that online education could be our last hope; for that, all educators and administrators should be well equipped with the technical skills. As frontline providers of knowledge and education, their ability to adapt to ever-changing circumstances has been extremely challenged and even tested sometimes during the Covid-19 pandemic. The abrupt shift towards the virtual environment has marked a new era for education. While it has rung an alarming question of whether we could rely fully on online education at some point, it was a wake-up call for all active parties in the education sector(Li & Yu, 2022).

6.4 Gamifying Education

Gamifying education has come to use games and the concept of playing in education outside its main context. This concept rose with the exponential growth and the fame video games enjoy. This implementation is due to the growing importance of story-telling, which takes a large portion of how games function. Stories provide learners with the plot, support and motivation to compete and learn, which leads to creating learning communities that come together to learn while participatingn games (Toledo Palomino et al., 2019).

Gamifaction elements have been divided into a number of components (.Manzano-León et al., 2021):

- Mechanics: actions and control mechanisms offered to players within the context of a game. For example, draw cards, gamble, trade, attack, compete, and cooperate.
- Dynamics: behaviours to be performed while the mechanics are being executed. For example, socializing, bluffing, reflection, status, and attention.
- Aesthetics: desirable emotional responses evoked in players when interacting with the game system. It is divided into sensation, fantasy, narrative, challenge, companionship, discovery, expression, and entertainment.

According to Toda (2019), gamification could be used to increase end users' performance, engagement, and motivation. While it is hard to implement a fully gamified experience, to learners fully, gamification could help students learn quickly, have better knowledge retention, and have An enjoyable learning experience. All in all, the gamified strategies created in this experiment achieved positive acceptance among the students and professors (Toda et al., 2019).

Figure 24

Technology and Education slide 1

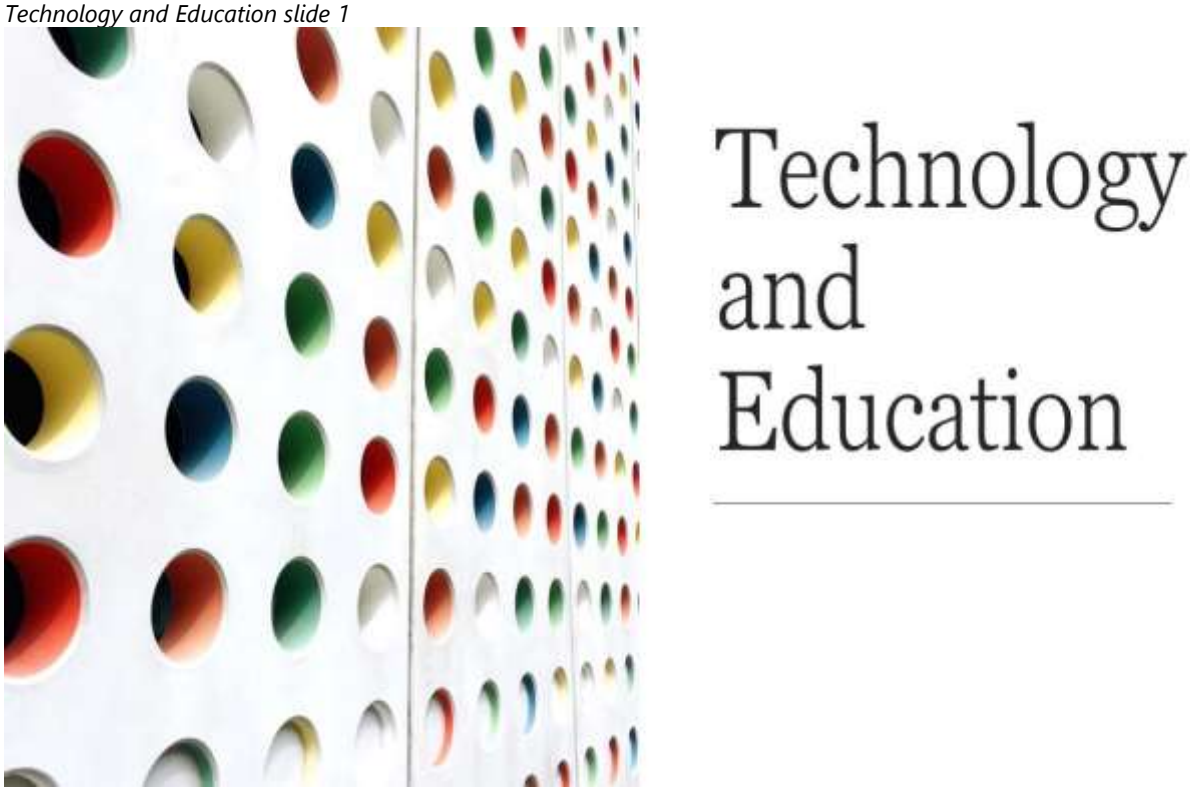


Figure 25

Technology and Education slide 2

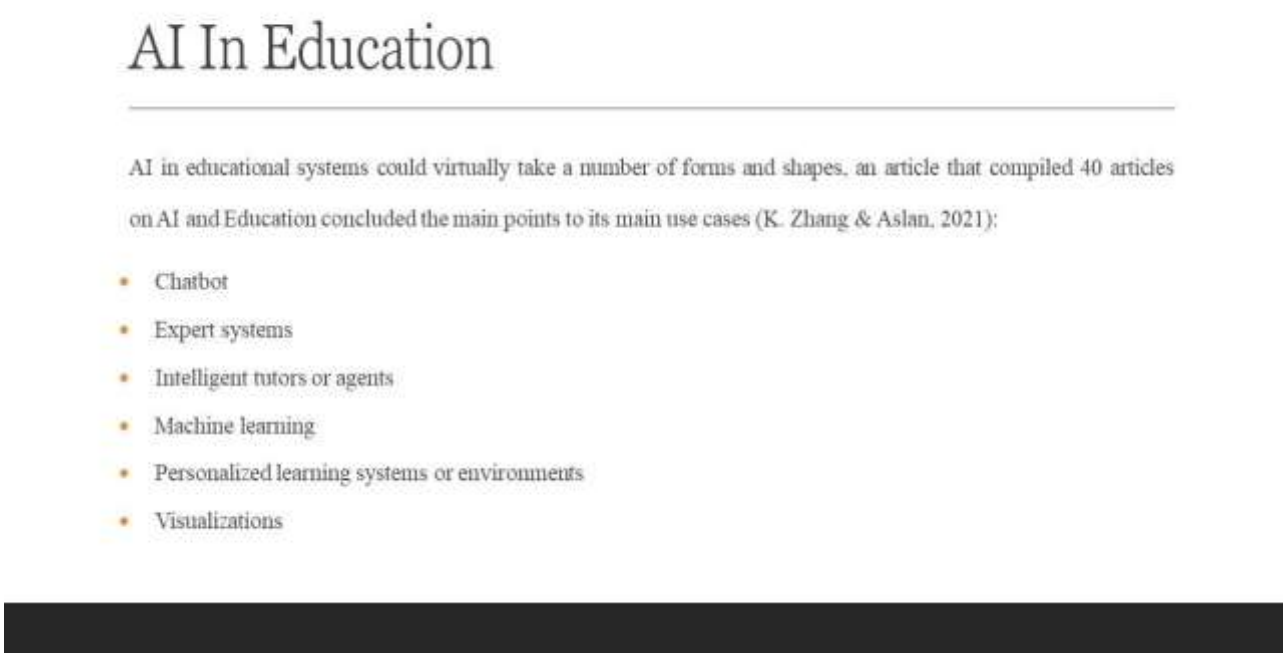


Figure 26

Technology and Education slide 3

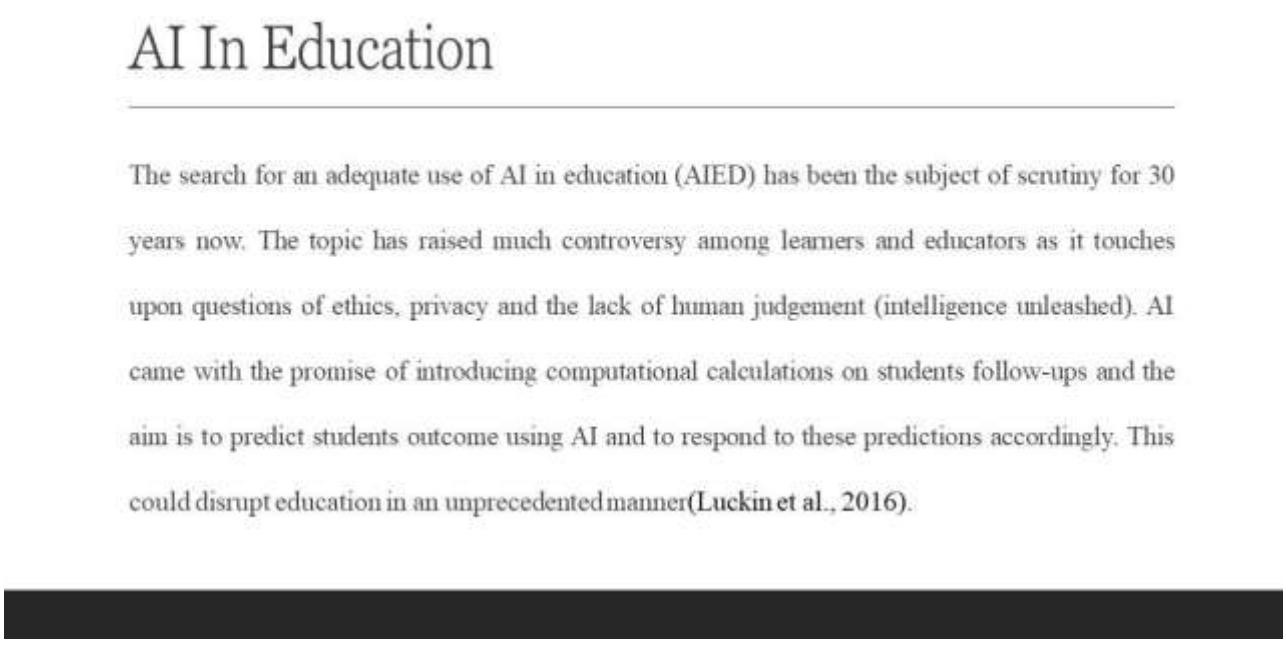


Figure 27

Technology and Education slide 4

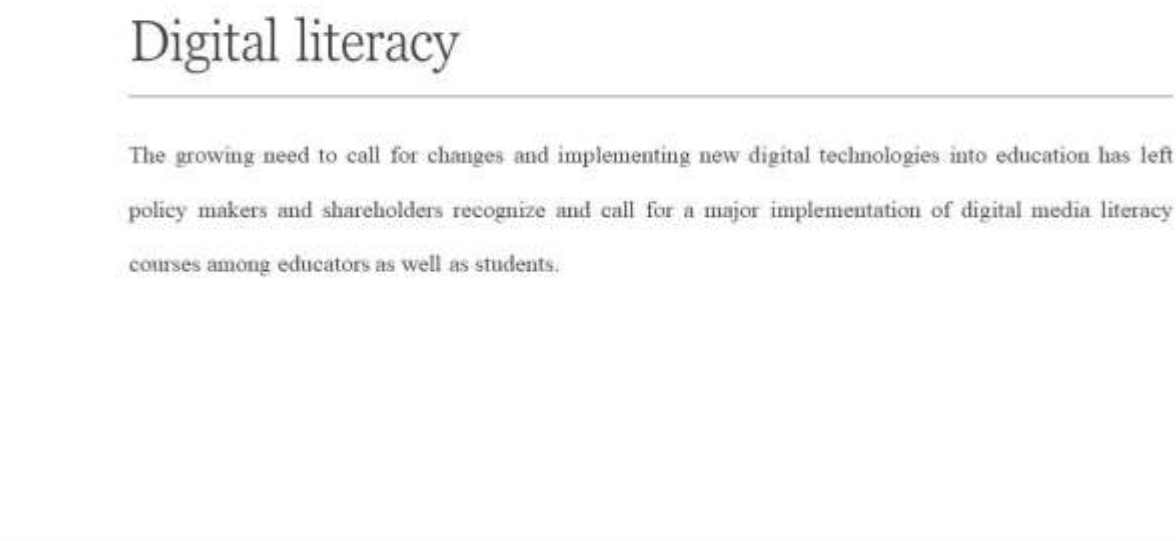


Figure 28

Technology and Education slide 5

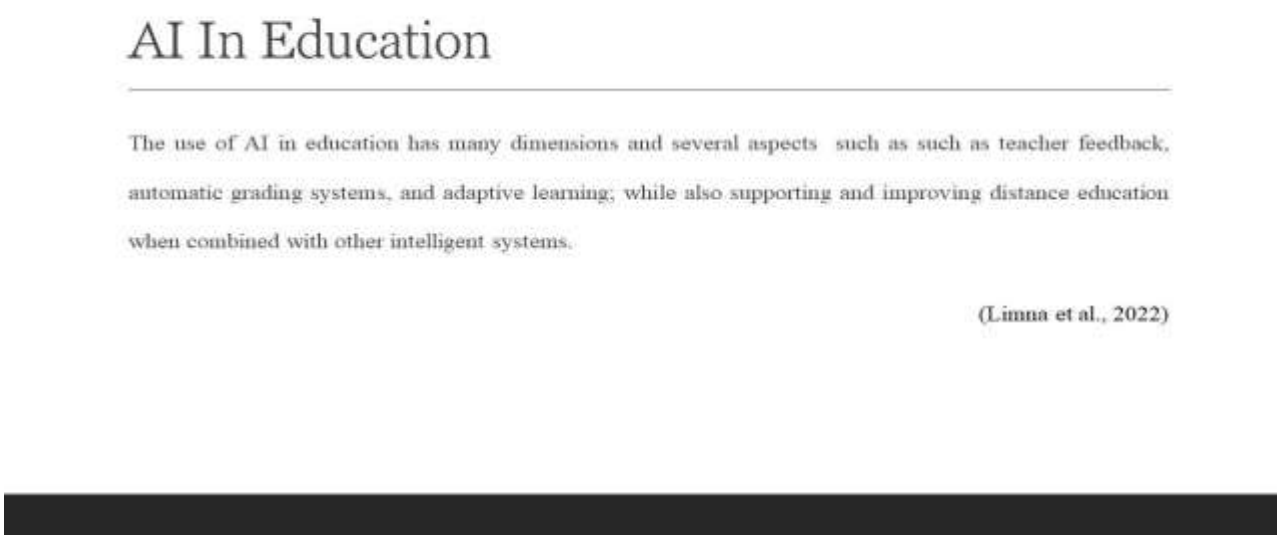


Figure 29

Technology and Education slide 6

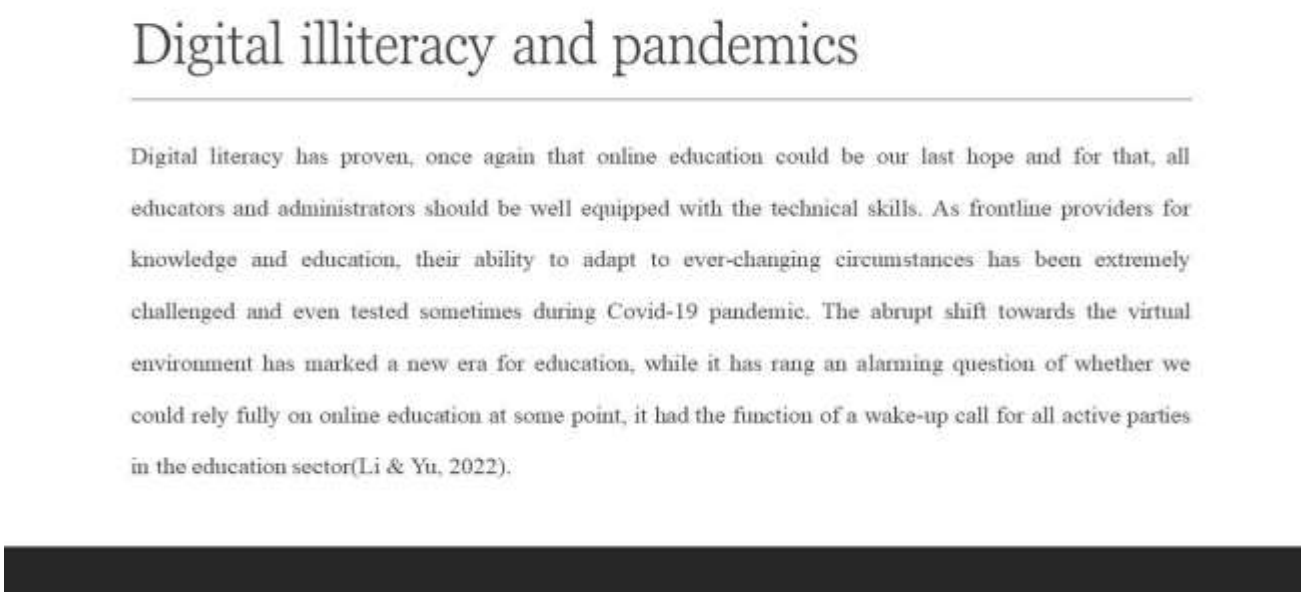


Figure 30

Technology and Education slide 7

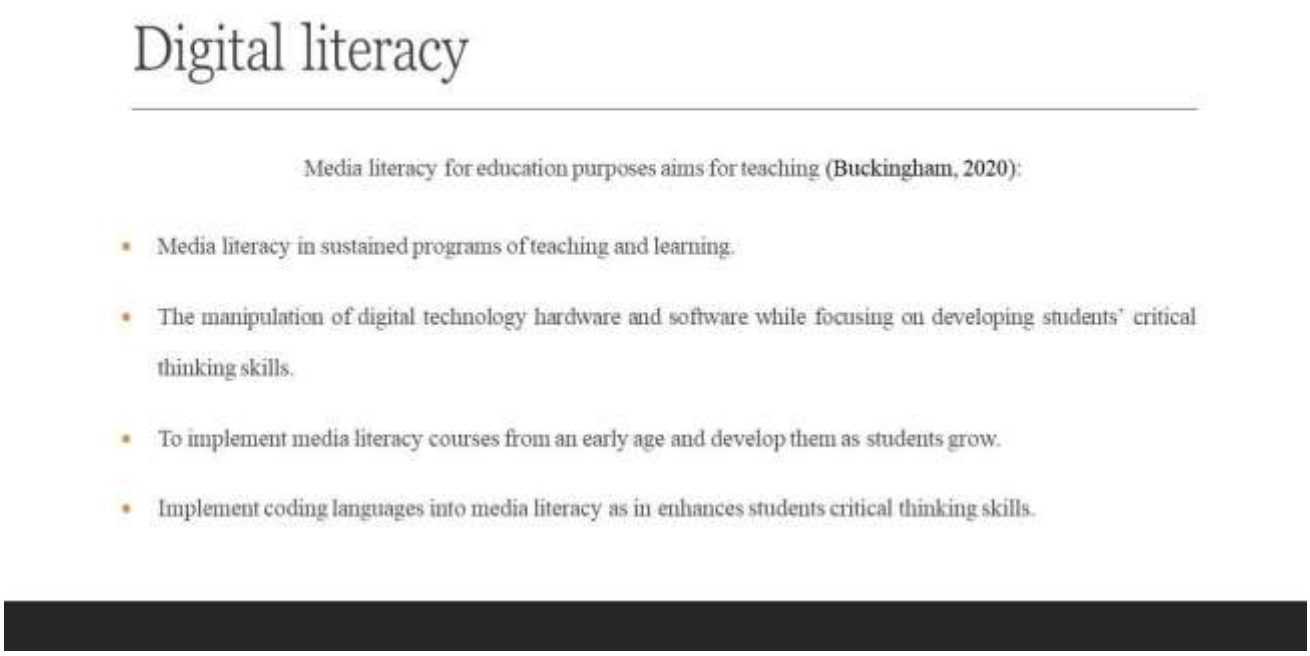


Figure 31

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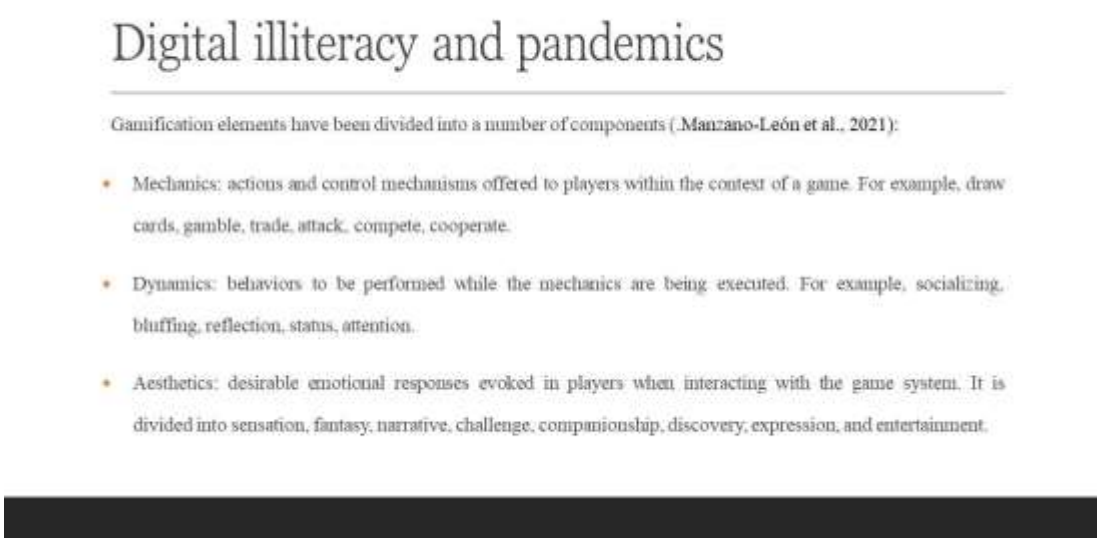


Figure 32

Technology and Education slide 9

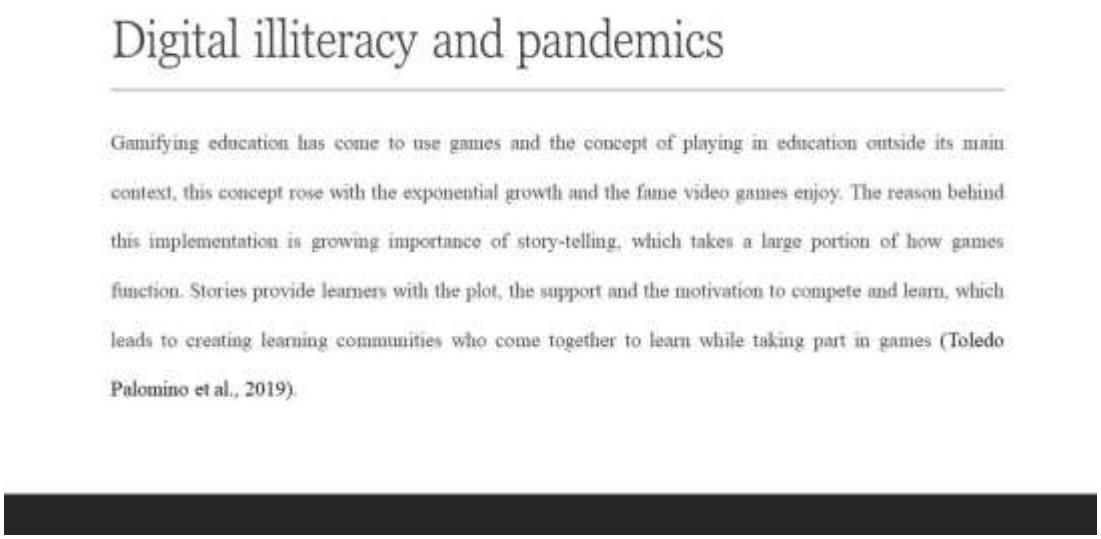
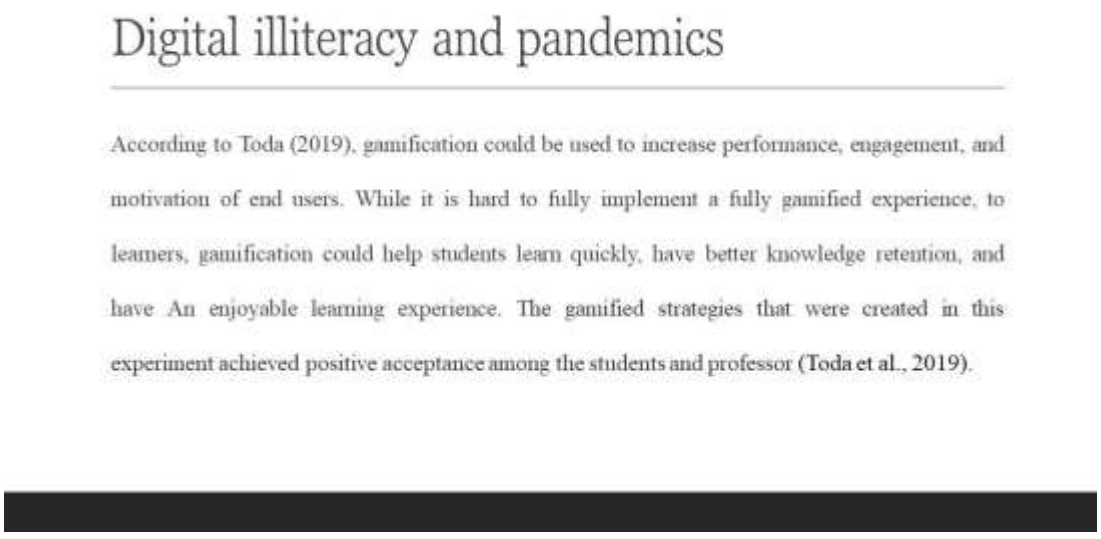


Figure 33

Technology and Education slide 10



6.5 Assessment / in-seminar activities:

6.5.1 Session 3: Education and Technology
Duration: 2.5 hours

Objective: To explore the concept of AI and technology use in education and its potential benefits and limitations.

Exercise 1: AI in Education Inquiry
Instructions:

1. Teachers are divided into small groups.
2. A case study of a student who could benefit from AI in education is provided.
3. Discussion and brainstorming are ignited to think of ways in which AI could be used to support this student's learning.
4. Each group presents their ideas to the other group and discusses the potential benefits and limitations of AI in education.

Exercise 2: Technologies in Service of Students
Instructions:
Jamboard Tour: Teachers are given a board with examples of using various technologies in the classroom. Teachers rotate through examples in small groups and provide ideas for implementation and potential challenges.

7. Globalization
7.1 Online Education Market Growth
Online education as a market has grown in the past few years due to the technological advancement of mobiles, laptops, tablets and many other specialized outlets (Zhou et al., 2020). During the Covid-19 pandemic, many countries shifted gears to online education as the sole alternative for safe and sustainable education. China is no different from online education, but the change during the Covid-19 pandemic was due to the nationwide lockdown. The call for a general campaign under the name of ''Schools out but classes on'' was launched by the Chinese government during the same period, this call, alone, was able to raise the market share of several online education providers (Zhou et al., 2020).

Africa is no different than the rest of the world. It has witnessed growth in online education fields in the last few years with the help of some European countries like the Netherlands, France and Spain. This education market growth has precisely helped in helping students access to education, granting inclusiveness and giving them access to Online Universities libraries all over the world (Ndofirepi et al., 2020).

7.2 Internationalization of higher education
Internationalization in education first appeared as a reaction to continued and forced migration worldwide. Geo-political hot spots caused the world to turmoil, leading many people to leave their countries and seek asylum elsewhere. Time goes by, and countries of transit become the home of million is immigrants (Ergin et al., 2019). While Internationalization could come naturally, a number of countries which receive migrants are forced into Internationalization of three core functions of universities (Ergin et al., 2019):

Teaching: Teaching has been internationalized through the implementation of culturally responsive educational programs and revisiting curriculums to suit minorities' expectations as well.

Research: Research, especially in humanities and pedagogy, has been focusing on how it could help support the newcomers.

Services: The service includes enabling the migrants to have access to public education facilities and other facilities such as ''language courses, healthcare, psychological support, and information seminars on crucial topics such as childcare, legal rights of refugees, and employability''.
On the other hand, the Internationalization of education could also result from political, economic, and socio-cultural conflicts, due to individual factors such as academic freedom, the role of reputation, rankings and excellence, and the changing political climate (de Wit, 2019).

7.3 Global Citizenship in Education
The everlasting impact of global societies has forced many educational systems, stakeholders, and researchers to expand on modes and methods of how learners could transcend to become global citizen learners(Yemini et al., 2019). The growing trend of global citizenship has been arguably defined as ''The constitution of a number of discourses under one umbrella concept of global citizenship in education (GCE)'', which leaves room to fetching the ''purpose and goals for global citizenship education, as well as its relationship to broader social and political issues such as globalization, neoliberalism and postcolonialism''(Pashby et al., 2020). According to Marta (2020), in her article '*Who Needs Global Citizenship Education?*', stated that teachers' perception towards global citizenship education for international societies is that they are given a massive responsibility upon them, which makes informing, educating and training, teachers to better deal with matters of global dimension (Estellés & Fischman, 2021).

Points mentioned when talking about the strategies followed in incorporating GCE into are as follows(Estellés & Fischman, 2021):

- The vitality of GCE makes it part and partial of any education system, which makes the implemented strategies part of an arsenal of education changes.
- Teacher education is viewed as the ‘‘mind’’ of all education disciplines, as it trains prospective teachers.
- While the third strategy could be the implementation of a curriculum that encompasses methods for teachers and students to better equip with the tools needed for a quickly changing world.

Figure 34

Globalization and Education slide 1

Figure 35

Globalization and Education slide 2

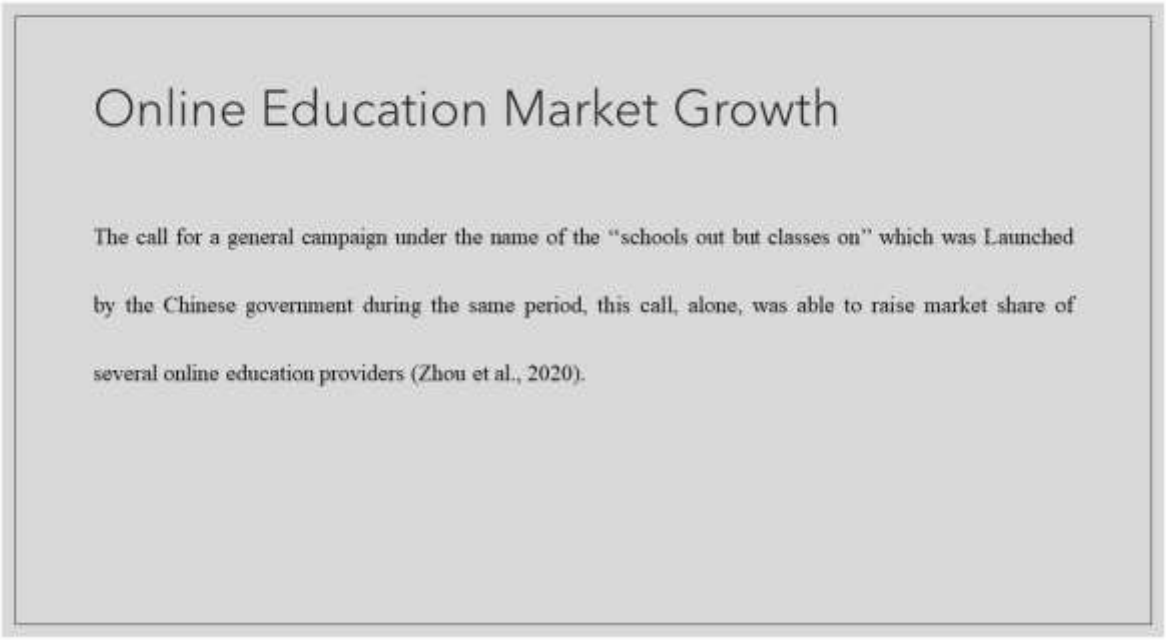
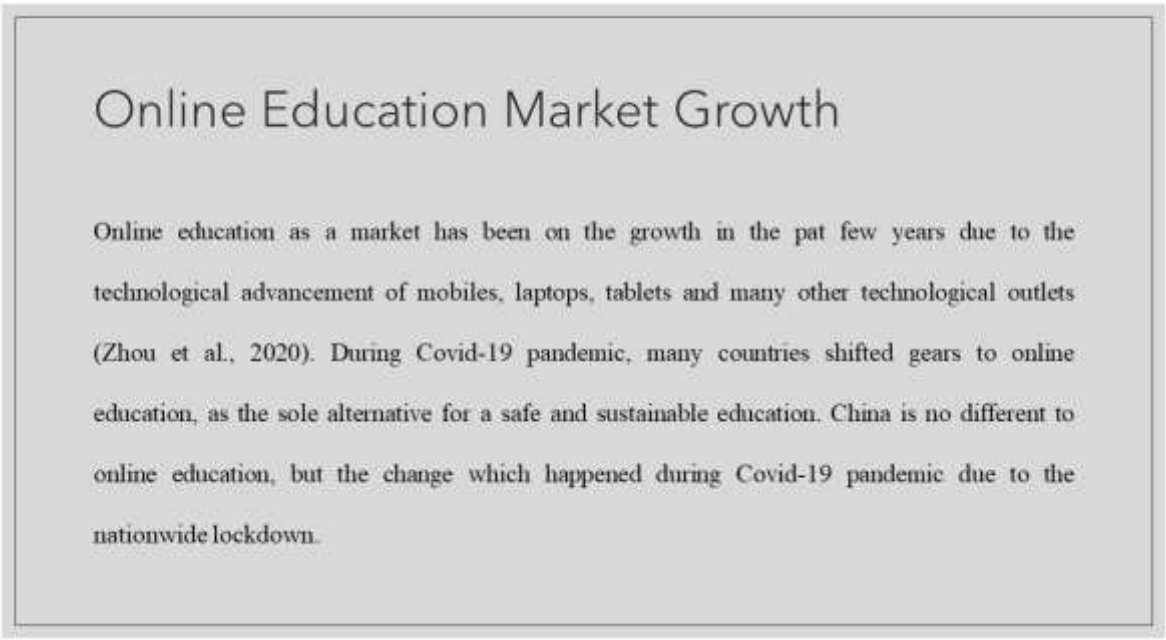


Figure 36

Globalization and Education slide 3



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Globalization and Education slide 4

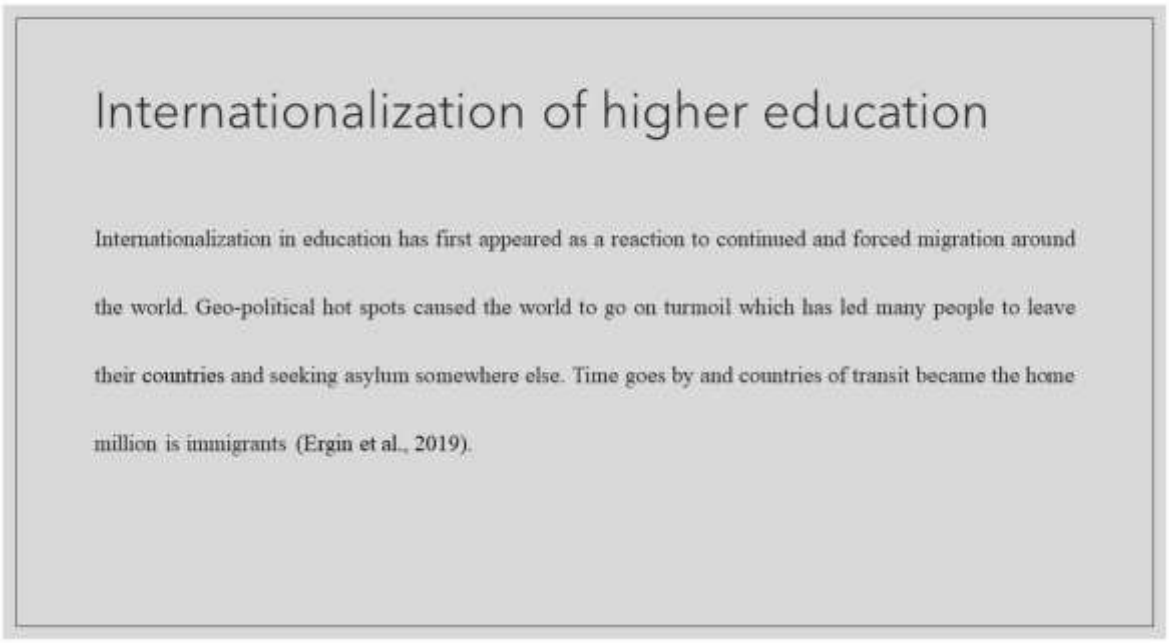
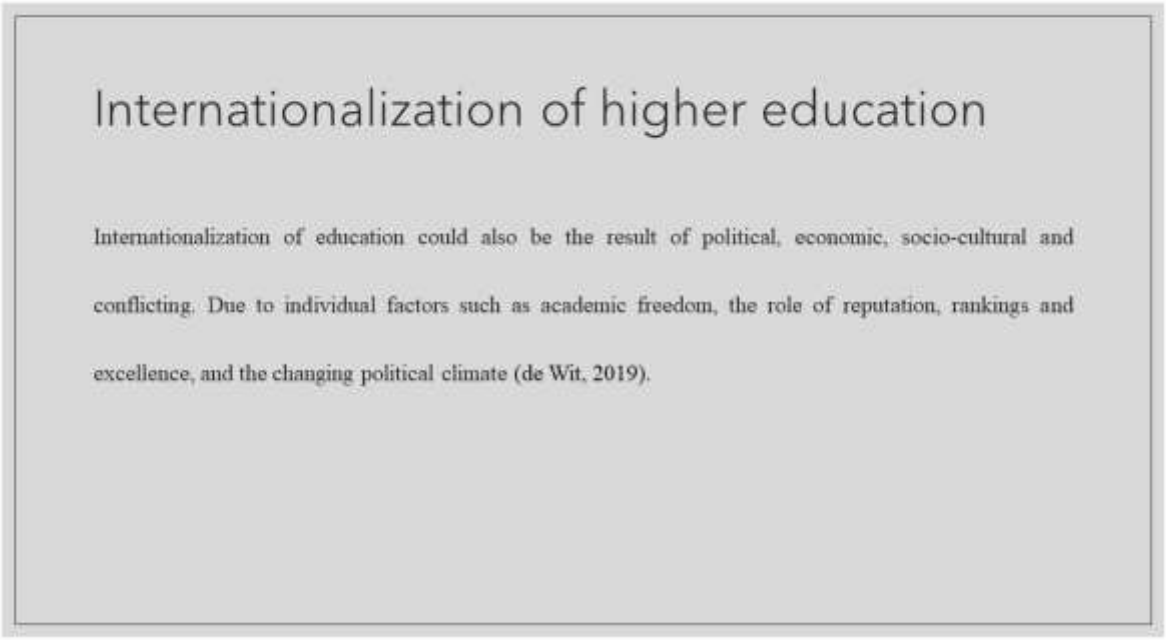


Figure 38

Globalization and Education slide 5

Figure 39

Globalization and Education slide 6



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Globalization and Education slide 7

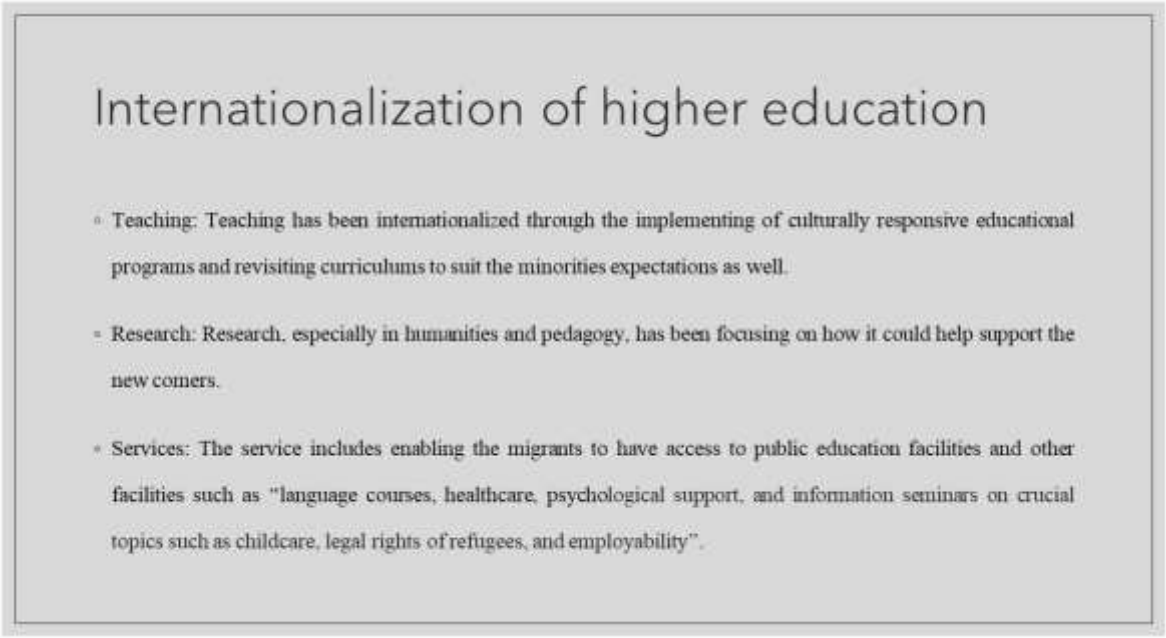


Figure 41

Globalization and Education slide 8

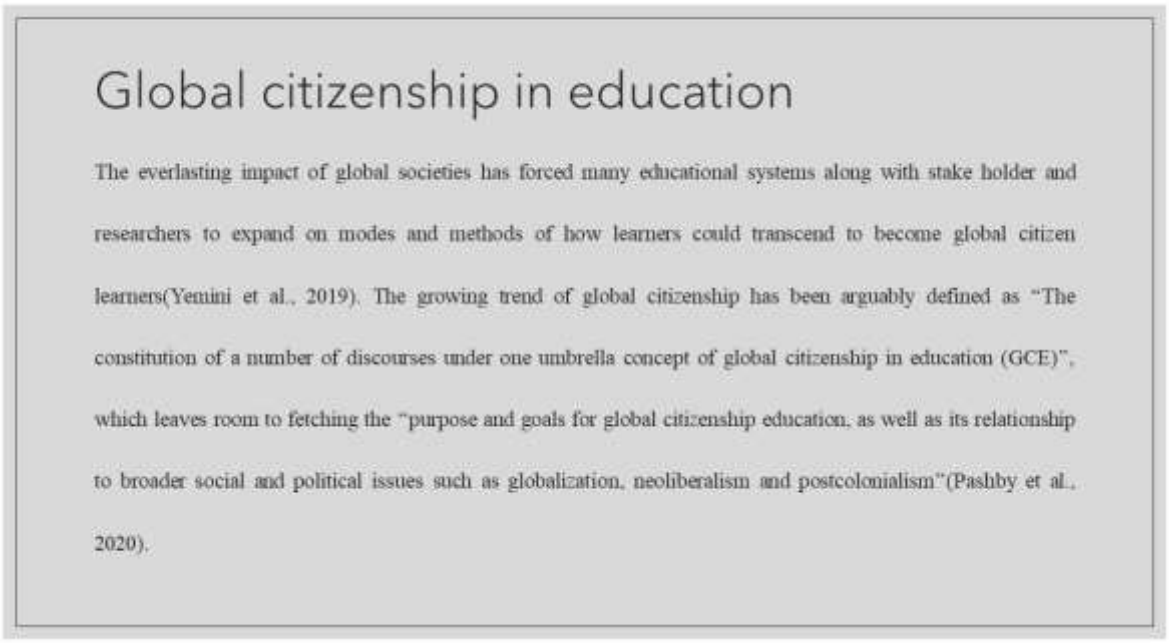


Figure 42

Globalization and Education slide 9

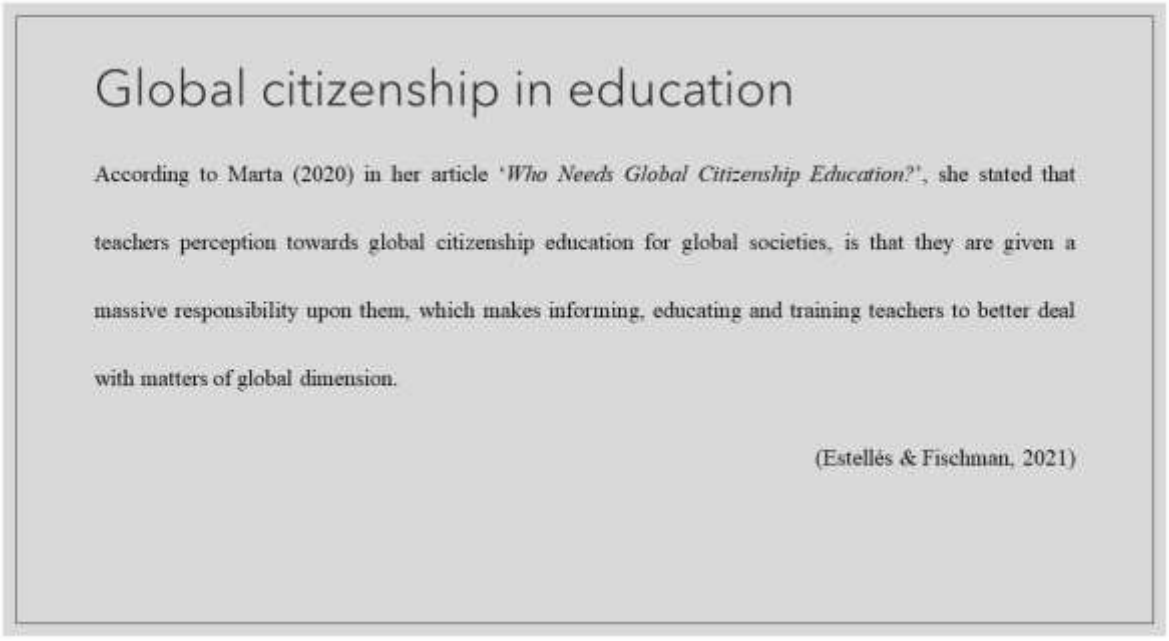
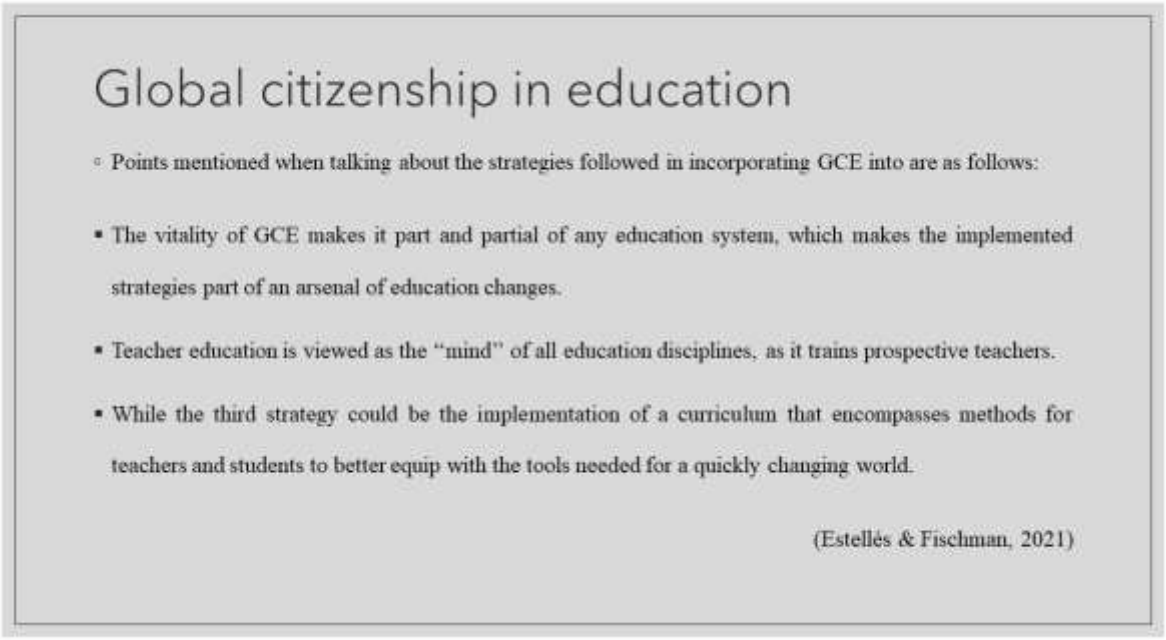


Figure 43

Globalization and Education slide 10



7.4 Assessment / in-seminar activities:

7.4.1 Session 4: Globalization in Education

Duration: 2.5 hours

Objective: To explore the concept of AI and technology use in education and its potential benefits and limitations.

Exercise 1: Internationalization of Higher Education Inquiry

Instructions:

World Map Activity: Place a sticker on a world map to show where you have accessed online education, travelled abroad for school, or have students from different countries. They discuss trends they observe.

Exercise 2: Technologies in Service of Students

Instructions:

1. Participants were in small groups and assigned global citizenship topics to teach.
2. Each group creates a short lesson plan and teaches it to the rest.
3. Participants should discuss the importance of global citizenship in education and its role in preparing students to be responsible global citizens.

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