

The Joys and Challenges of Student Empowerment with Smart Automation and Digital Technologies in Higher Education

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Abstract: Empowerment is a vital educational concept that seeks to provide learners with autonomy, responsibility, and authority to make decisions about the process of learning by involving students indecision-making process, encourages thinking logically, critically, autonomy, and the development of leadership skills. The research paper explores the joys and challenges associated with student empowerment, focusing on its impact on motivation, academic performance, and personal development. The benefits of increased engagement, self-confidence, and leadership skills are weighed against challenges such as the potential for misalignment with educational goals, resource limitations, and resistance from traditional educational structures.

Keywords: Empowerment, Educational challenges, Motivation, Autonomy

Introduction

Digitization and implementation collaborate rapid growth and competencies for the next generation of students and improves higher education efficiency through new technologies. This encourages and motivates students to collaborate with learning experience and make decisions on their own and to boost creativity and motivate them towards problem-solving skills. The process of enabling students to take control of their learning experience, voice their opinions, and become active participants in shaping their educational journeys. It represents a shift away from the traditional, teacher-centered approach to learning, encouraging a more collaborative, student-centered environment. The empowerment process nurtures academic development, and it cultivates essential life skills such as decision-making, problem-solving, and self-discipline. The research shows both the joys and challenges of empowering students within educational systems. Global revolutionary transformation driven by automation coupled with cutting-edge advancements in internet of things (IoT), Artificial Intelligence (AI), and Machine Learning (ML) is reshaping the landscape of technologies.

Technology and Automation benefits: Technology has transformed classroom looks from traditional chalkboards to digital whiteboards and iPads.

1. **Creates more engaged environment:** Some think that technology is a distraction, but creates active participation and interactive session using computer, tablet and other technologies.

2. **Incorporates different learning styles**: Modern technologies in education builds lessons and courses integrated and tailored technology benefits the future.

3. **Improves Collaboration:** There is increase in frequency of students using technology and technologybased tasks. More technologically advanced assist experienced peers.



4. **Prepares for the future:** Introducing technologies at the young age, students can prepare for future digital demands.

5. **Connects with students and tutors**: Technology evolves classroom advancements and encourages critical thinking skills. Schools are recognised as provider of skilled and people for the work force.

Literature Review:

1. **Integration of digital technologies in education**:

Technologies are essential for the functioning, and we rely on it from dawn to dusk (Al-Zaman, 2020; Neimann & Wang, 2017). The digital revolution unleashed exceptional capabilities and dramatically transformed people's activities, transaction and the information and communication technologies (ICT's) usage, artificial intelligence, advanced robotics, big data, Internet of things (IoT), etc. The concept of digitalization of education may be in integration of virtual and digital facility to sustainable educational development.

2. Challenges and limitations of Digitization:

Digitization will face all the challenges of robust change in management and addressing potential digital divides. The global digital connection and the requirements are related to the necessary change, processes, models, required skills and knowledge, (Blanchet et al., 2014). Copyrightissues are not only a legal dilemma in the process of digitization but also justifiably critical concerns about the relationship between digitization and control.

3. Increased Motivation and Engagement:

Empowered students feel more invested in their learning process. When students have a say in their education, they are more likely to take ownership of their academic goals, leading to higher motivation and engagement in coursework fostering collaboration and streamlining processes leads to more productive. The ARCS model was grounded on expectancy theory, which suggests that people are motivated to engage in an activity if they perceive the activity to be linked with personal needs and if there is expectancy to succeed (Wigfield & Eccles, 2000). Motivation is the driving force to take action and engagement is evidence of that motivation. Successful engagement also motivated in the future.

4. Improved Critical Thinking and Problem-Solving Skills:

The digitization process in education transforms the written and documented knowledge into digital knowledge, practical knowledge reasoning and the advent of a novel approach to the dissemination and utilization of educational information and thought process. This process encompasses the digitalization of educational resources, the dynamization of educational technology, and the innovation in educational methodologies (Kalimullina et al., 2021). Allowing students to make decisions regarding their learning fosters independent thinking. Empowered students are more likely to develop strong critical thinking skills, which are essential for success in both academic and real-life situations.

5. Leadership Development:

The digitization of educational resources enhances their visionary thinking, adaptability, innovation and collaboration, exposing students to a diverse range of knowledge across the globe, which is not constrained by their primary fields of study. Furthermore, learners are able to receive immediate feedback through interactive platforms (Dobudko et al., 2019). It provides a transformation advancing digitization leading people and teams carried out by fostering alignment, gaining mindshare and developing talents. The wealth of resources and real-time response may



expand students' intellectual horizons (Ugur, 2020), simulative innovative thinking among students and challenging students to integrate the new resources into their knowledge base. Therefore, the digitization of educational resources enhances the creativity of students with special needs of responsibility and ownership of their education, students develop leadership qualities. These skills are not only beneficial in the classroom but also in their future careers and personal lives.

6. Creative Self-efficacy:

Self-efficacy is defined as the belief that you can be successful when carrying out certain tasks. The ability to produce creative and innovative outcomes is positively influenced by two factors: creative role identity and teachers' creativity expectations. Digital technologies and tools can significantly impact self-efficacy. It's a psychological attribute that creative performance. Social interactions digital literacy also contributes creative self-awareness and image beliefs influenced by their creative acts, goals and abilities. Perceptions of self-efficacy is the ability to use digital technology for students digital skills. Digital literacy mediates the influence supporting institution, mentor influence and peer influence on student digital self-efficacy. It provides multidimensional support and assessment in allowing adoptability and comparison across the diverse demographics. Digital transformation technology infrastructure and education, Creative role identity is multifaceted self-perception that is subject to self-regulation and reciprocal determinism (Bandura,1986) and is one's recognition of creativity. Empowerment increases self-efficacy as students experience success in tasks, they have taken initiative on. This boost in self-confidence can lead to improved overall academic performance.

Challenges of Empowerment

1. **Misalignment with Educational Objectives:**

A major challenge is ensuring that student-empowered decisions align with broader educational objectives. Sometimes, student interests may not fully coincide with curricular goals, leading to potential gaps in the necessary knowledge and skills.

2. **Resource Limitations:**

In an environment that promotes student empowerment, teachers and educational institutions need additional resources (time, materials, training, etc.) to facilitate this process effectively. In many schools, resource constraints can hinder the implementation of empowerment strategies.

3. **Resistance to Change:**

Traditional education systems often operate on a top-down model, and resistance from educators, parents, or administrators may occur when attempting to implement more student-centered approaches. This resistance can slow down or obstruct the shift toward empowerment.

4. **Overburdening Students:**

While empowerment gives students greater autonomy, it can also place pressure on them to make decisions and manage their learning. Some students may struggle with this added responsibility, which could lead to anxiety or disengagement.

5. **Technical Issues:** Technical problems in software, hardware and connectivity.



Strategies for Student Empowerment:

1. Create a supportive and Inclusive environment: Beyond diversity everyone's voices heard and valued, encouraged, respected and empowered to achieve their best. Students feel safe to take risks, ask questions, and express their ideas.

2. Encourage Collaboration and Communication: Provide opportunities for students work together, share ideas, using communication tools such as video conferencing etc.

3. Involve Students in Decision-Making: Give students a voice in their learning by allowing them to participate in curriculum development, project selection, and classroom activities.

4. **Promote Self Reflection and visioning:** Specific goals reflect on learning to identify their strength and weaknesses.

5. **Provide Opportunities for Real-World Application:** Connect learning to real-world problems and challenges, allowing students to see the relevance of their education.

6. Use Technology Effectively: Utilize technology to enhance learning, provide access to information, and promote collaboration. Organize your digital files and information, use cloud-based platforms and other tools to communicate.

7. Focus on Strength and Interests: Interest and strength makes learning more engaging and motivating. Sharing passions and interests with others can foster stronger connections and relationships.

8. Feedback and Support: Offer constructive feedback and support to help students succeed. Instead of vague comments provide concrete examples of what was done well. Help individuals understand what they need to do improve positive behaviours.

Digital transformation in Higher Education

1. **Digital Initiatives**: Government and institutional digital initiatives and services are made available electronically to improve online connectivity promoting technology integration inIT jobs, electronics manufacturing and delivery of services, Universal access to Mobile connectivity, Broadband Highways, future telecoms.

2. **Remote Learning:** Technological advancements offer new possibilities for flexibility and accessibility, Real-time interactions, video conferencing, content access and assessment at flexible time both online and offline. Instructors are separated from learners in time and distance facilitated through learning management systems, conferencing software.

3. **Data-Driven Approaches**: Data analytics and AI are being leveraged to personalize learning, optimizing efficiency, and improve student outcomes are primary source for decision making. Identifying inefficiencies and areas for improvement, data-driven approaches lead to increased efficiency and productivity, anticipating problems and making proactive decisions, identity and improve talent gaps.

4. **Global Education:** Online flat forms allow international collaborations, and access to diverse perspectives. The positive development on culture, recent developments, content knowledge, skills to analyse and solve.

5. Translation and Translation Automation: Providing access to digital content in different languages. Automatic translation software and technology with comprehensive dictionaries and a collection of linguistic rules that translate from one language to another language and Intersemiotic translation without relying on human translators.

6. **Service Learning**: Digital technologies can enhance and broaden service-learning programs integrates classroom learning, civic responsibility and experiences by applying real-world problems. Enhanced learning of



course material through real-world application. Students make a positive impact on their communities by addressing real needs and contributing to social change.

Conclusion

Student empowerment offers a promising avenue for improving educational outcomes and personal growth. The joys, including enhanced motivation, leadership skills, and critical thinking, clearly illustrate the potential benefits of this approach. However, challenges such as resource limitations, resistance from traditional systems, and the potential for misalignment with curricular goals must be addressed for empowerment to be fully effective. Educators and policymakers must carefully balance the benefits and challenges of empowerment to ensure that it leads to positive outcomes for all students. Digital tools are an opportunity to improve the higher education more competitive in its shifting landscape.

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