

P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

Empowering Students as Agents of Change in Sustainable Society 5.0 in Higher Education

Wirda Ningsih¹, Yundri Akhyar²

¹⁾Pendidikan Agama Islam (PAI), STAI Al-Kifayah Riau, ²⁾Manajemen Pendidikan Islam (MPI), Fakultas

¹⁾Tarbiyah dan Ilmu Pendidikan, UIN Sultan Syarif Kasim Riau

E-mail: ^{1)*}wirdaningsih2007@mail.com, ²⁾yundri.akhyar@uin-suska.ac..id

*Corresponding

Abstrak

Institusi pendidikan tinggi memainkan peran penting dalam membekali mahasiswa dengan pengetahuan, keterampilan, dan pola pikir untuk berkontribusi aktif dalam membangun masyarakat berkelanjutan ketika dunia menghadapi tantangan keberlanjutan yang kompleks. Jika sebuah lembaga pendidikan tunggi tidak secara efektif membekali mahasiswa dengan pengetahuan, keterampilan, dan pola pikir penting yang diperlukan untuk secara aktif terlibat dalam pembangunan masyarakat berkelanjutan dalam menghadapi tantangan keberlanjutan kompleks yang dihadapi dunia saat ini, berbagai dampak buruk dapat timbul. Hal ini mencakup degradasi lingkungan, ketidakstabilan ekonomi, kesenjangan sosial, dan sebagainya. Tujuan penelitian adalah untuk mengetahui strategi pemberdayaan peserta didik sebagai agen perubahan dalam masyarakat berkelanjutan 5.0 dalam pendidikan engsel. Penelitian ini menggunakan pendekatan penelitian kualitatif. Pengumpulan data dilakukan melalui proses analisis dokumen. Hasil penelitian adalah strategi pemberdayaan peserta didik sebagai agen perubahan dalam masyarakat berkelanjutan 5.0 di Hinger Education terdiri dari pengembangan pengetahuan dan kesadaran, mendorong pemikiran kritis, memupuk kreativitas dan inovasi, mendorong partisipasi aktif, menumbuhkan kolaborasi dan jaringan, mendorong tanggung jawab etis, dan mempromosikan literasi digital

Kata Kunci— Agen Perubahan; masyarakat 5.0, Hinger Education

Abstract

Higher education institutions have a significant role to play in imparting students with the necessary knowledge, skills, and mindset to actively participate in the construction of a sustainable society amidst the intricate sustainability difficulties that the globe currently confronts. If an educational institution does not effectively provide students with the essential knowledge, skills, and mindset required to actively engage in the development of a sustainable society in the face of the complex sustainability challenges that the world currently faces, various adverse outcomes may arise. These include environmental degradation, economic instability, social inequity, and so on. The objective of this research is to identify the ways that can empower students as agents of change in the context of a sustainable society 5.0 within higher education institutions. The study employs a qualitative research methodology. The data was obtained by use of a document analysis methodology. The research findings provide insights into techniques that might effectively empower students as agents of change within the context of a sustainable society 5.0, particularly in addressing issues related to hunger. Education encompasses the cultivation of knowledge and awareness, the fostering of critical thinking skills, the nurturing of creativity and invention, the promotion of active engagement, the cultivation of collaboration and networking abilities, the encouragement of ethical responsibility, and the advancement of digital literacy.

Keywords— Agent of Changes; society 5.0, Hinger Education



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

1. Introduction

In the contemporary era characterized by swift transformations, the notion of sustainability has assumed heightened significance. The concept of Sustainable Society 5.0 entails an envisioned future whereby the coexistence of humans, technology, and nature is characterized by harmonious interactions, with a primary focus on sustainable development. Higher education institutions have a significant impact on enabling students to assume the role of change agents in our collective efforts to construct a sustainable society. The emergence of the notion of Sustainable Society 5.0 in higher education signifies a revolutionary vision aimed at achieving a state of peaceful cohabitation among humans, nature, and technology. In light of the dynamic nature of our global landscape, it has become imperative to equip students with the necessary tools and knowledge to effectively contribute as catalysts for change within a sustainable paradigm [1].

According to Saadatian et al. (2011), higher education institutions acknowledge the importance of providing students with the requisite information, skills, and mindset to effectively tackle sustainability concerns. Universities are fostering the development of a cohort of persons who are actively contributing to the advancement of a more sustainable future through their involvement in the goal of Sustainable Society 5.0. Higher education institutions are incorporating sustainability ideas into several academic areas by employing creative curriculum design and instructional approaches. The implementation of this comprehensive strategy allows students to develop a comprehensive understanding of the interconnectedness of social, economic, and environmental factors [3]. By engaging in experiential learning opportunities, such as internships and fieldwork, students acquire practical knowledge on the tangible effects of sustainable practices in real-life contexts.

It is recommended that universities embrace transdisciplinary methodologies and foster a culture of collaboration among students, transcending conventional disciplinary boundaries. By means of multidisciplinary programs and courses, students have the opportunity to explore the intricacy and diverse character of sustainability issues[4]. This approach facilitates the development of critical thinking, problemsolving, and systems thinking skills, enabling students to analyze sustainability concerns from several angles. Colleges and universities actively foster the development of social entrepreneurship among their student body within the realm of academic endeavors. Universities are facilitating the development of entrepreneurial skills and mindsets among students, thereby enabling them to devise sustainable solutions that effectively tackle societal and environmental concerns. Incubation centers and mentorship programs play a crucial role in offering essential assistance and direction to student-led ventures with an emphasis on sustainability. As a result, these initiatives contribute to the advancement of significant projects. The inclusion of participation and active student engagement is crucial in the process of empowering students as agents of change. In recent years, educational institutions have been implementing frameworks that empower students to take charge of their own ideas and initiatives[5]. Through the inclusion of students in decision-making processes linked to sustainability, institutions may effectively ensure that the perspectives and opinions of students are acknowledged and valued. Conferences, symposia, and seminars provide students with opportunities to showcase their work and engage with a broader community, thereby enhancing the reach and influence of their contributions.

The function of higher education in empowering students as catalysts for societal sustainability is of paramount importance. The user's text, "5.0," does not require any academic rewriting as it Universities are equipping students with the necessary knowledge and abilities to tackle the intricate issues of contemporary society by integrating sustainability principles into their academic programs, cultivating transdisciplinary competencies, promoting social entrepreneurship, and fostering active student participation[3]. The information, skills, and passion possessed by students position them to play a pivotal role in fostering a more sustainable and resilient future for subsequent generations. The acquisition of higher education plays a crucial role in nurturing the intellectual development of young individuals and shaping the forthcoming generation of leaders [6]. Through active involvement of students in the quest of sustainability, we can provide them with the necessary information, skills, and drive to effectively tackle the intricate difficulties faced by our global society. The process of empowering individuals commences by fostering a mindset centered on sustainability among students [7]. The cultivation of this mindset can be



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

facilitated through the incorporation of sustainability ideas into the educational curriculum. Through the provision of courses that explore the interconnectedness of social, economic, and environmental factors, students are able to acquire a holistic comprehension of sustainability concerns and the corresponding remedies. Experiential learning opportunities, such as internships and fieldwork, provide students the chance to witness firsthand the tangible effects of sustainable practices in practical settings, thereby augmenting their comprehension and drive.

In addition to their primary role in providing education, institutions of higher education also bear the responsibility of cultivating students' transdisciplinary talents. Interdisciplinary collaboration plays a crucial role in the establishment of a Sustainable Society 5.0. Universities facilitate a multifaceted approach to sustainability concerns by providing multidisciplinary programs and promoting collaboration, critical thinking, problem-solving, and systems thinking among students. According to research [8], the implementation of project-based learning has been found to significantly improve students' ability to effectively apply their acquired information. The involvement and active participation of students are crucial factors in enabling them to become empowered agents of change. It is imperative for institutions of higher education to actively involve students in decision-making processes pertaining to sustainability [3]. When students perceive that their comments and viewpoints are taken into consideration, they experience a sense of ownership and control over their ideas and initiatives (9). The establishment of platforms that facilitate student-led sustainability initiatives, campaigns, and events serves as a means for students to exhibit their efforts and actively participate in the broader community. This, in turn, cultivates a sense of purpose and influence among students.

The imperative of fostering student empowerment as agents of change within the context of Sustainable Society 5.0 constitutes a fundamental element of higher education. Universities assume a pivotal role in the cultivation of future sustainability leaders by building a mentality centered on sustainability, nurturing transdisciplinary competencies, promoting social entrepreneurship, and fostering active student participation. By equipping students with the requisite knowledge, skills, and drive, it is possible to cultivate a sustainable society wherein individuals actively engage in fostering good transformations, so guaranteeing a more promising future for the collective.

2. Method

Qualitative research is a methodological approach that aims to explore and gain a deeper understanding of the subjective experiences, meanings, and views of persons within their natural settings. The pursuit of a comprehensive comprehension of the intricacies and subtleties of human behavior, attitudes, beliefs, and social relationships is desired. Qualitative research often utilizes flexible and openended methods for data collecting and analysis, which allows researchers to get comprehensive and extensive information [10].

When engaging in research, it is imperative to carefully choose data collection methods that are suitable for the study in order to ensure the acquisition of precise and pertinent data. The choice of data collection methods is dependent on the study goals, the characteristics of the research inquiries, the type of data needed, and the resources at hand (11). The document analysis process involves the examination of relevant existing documents, records, or texts as a research method [12]. These may encompass a variety of textual sources, such as official documents, correspondence, research findings, newspaper stories, and social media updates. The analysis of documents provides significant historical, contextual, and linguistic insights, which can effectively complement other methods of data collecting. This approach is particularly relevant when examining the empowerment of students as catalysts for societal sustainability. A 5.0 grade point average in higher education.

The qualitative technique employed in the study of literature is a research methodology utilized to delve into a comprehensive comprehension of a certain subject or matter through the examination of texts, narratives, and contextual elements within pre-existing literary works. The qualitative literature study approach often involves a series of processes and steps. First, Selection of study Topic: Opt for the study topic that aligns with objectives and aspirations. It is imperative to ensure that the chosen topic is pertinent to the existing body of literature and possesses an adequate number of accessible sources. Second,



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

source Identification: The task at hand involves the identification of sources that are pertinent to the study issue. The process may entail conducting searches in academic databases, libraries, scholarly publications, books, and relevant articles. Third, source selection: Once prospective sources have been identified, it is imperative to carefully choose the sources that are most pertinent and valuable for the purpose of one's research. The process may entail perusing the abstracts, introductions, and other critical portions of these sources. Fourth, the method of data collecting in qualitative library research entails a thorough examination and comprehension of carefully chosen materials. It is imperative to thoroughly document and record pertinent facts pertaining to the chosen study subject. The process of data analysis in qualitative literary studies encompasses the systematic arrangement, visual representation, and meaningful interpretation of the gathered material. The objective is to discern significant patterns, themes, and concepts within the pertinent body of literature. The synthesis of findings is a crucial phase in this methodology following the analysis of the data. The task at hand involves the endeavours of consolidating information derived from diverse sources into a cohesive narrative, while elucidating the ramifications of those results for the research issue at hand. In the process of analysis, it is crucial to incorporate social, cultural, historical, and theoretical background in order to properly understand the findings. This elucidates the rationale for the emergence or consequential influence of a specific subject matter or concern within the scholarly literature under examination. The fourth report preparation: In conclusion, organize r research report by providing a comprehensive analysis of the findings, interpretations, and implications derived from the literature that has been examined. Ensure that your report adheres to the rigorous standards of scientific research and includes proper citations to relevant literature.

The utilization of the qualitative technique in the field of literary studies offers a comprehensive examination of intricate matters, hence facilitating an enhanced comprehension of a specific subject within the framework of preexisting scholarly works. This methodology additionally enables academics to discern areas of knowledge that have not been adequately addressed or require more investigation.

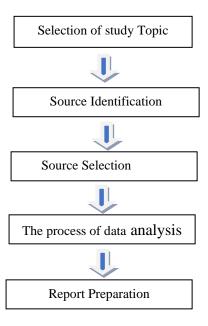


Figure 1: The research Method

3. Result and Discussion

Higher education institutions play a pivotal role in the endeavor to achieve a sustainable future by equipping students with the necessary knowledge and skills to effectively contribute as catalysts for change within the context of Sustainable Society 5.0. This essay explores the importance of empowering students and presents solutions to foster their engagement in the construction of a sustainable society.



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

1. acquiring knowledge and cultivating awareness

Higher education institutions play a pivotal role in the endeavor to achieve a sustainable future by equipping students with the necessary tools and knowledge to actively contribute as catalysts for transformative action. The cultivation of knowledge and consciousness is a fundamental aspect of the empowering process. Higher education institutions have the potential to motivate and engage students in the process of building a sustainable society by providing them with the essential knowledge and fostering their awareness.

The initiation of knowledge acquisition is facilitated by the implementation of an interdisciplinary curriculum that integrates concepts of sustainability. Higher education institutions recognize the importance of integrating sustainability principles into various academic areas, including science, economics, social sciences, and the humanities. The implementation of this integrated strategy ensures that students get a comprehensive comprehension of the various facets of sustainability, including the environmental, social, and economic aspects. The comprehension of the interconnection of sustainability concerns and the recognition of the necessity for holistic solutions can be achieved by students through the exploration of these topics across many academic disciplines[13].

Institutions of higher education provide specialist courses that specifically highlight the concepts of sustainable development and Society 5.0. The courses offered delve into various subjects such as renewable energy, sustainable urban planning, environmental protection, and ethical corporate practices[14]. Through further exploration of these disciplines, students get a comprehensive grasp and cultivate a discerning perspective on the complexities and potentialities entailed in the establishment of a sustainable society (15). These specialist courses offer students a comprehensive grounding and equip them with the necessary skills to actively participate in sustainable activities.

Higher education institutions prioritize research and innovation in sustainable development as a means to foster the advancement of knowledge. Institutions facilitate the engagement of students in the production of novel knowledge and practical solutions for sustainability by sponsoring research initiatives and fostering student involvement [14]. Involving students in research endeavors fosters the development of their critical thinking abilities, encourages the cultivation of independent thought, and expands their knowledge of contemporary sustainable development techniques and technology. By engaging in research, students are able to acquire practical experience in the exploration of sustainability concerns, the examination of data, and the development of evidence-based suggestions [16]. it is widely acknowledged by higher education institutions that there is a crucial importance in cultivating students' understanding and consciousness regarding sustainability and the concept of Society 5.0. They coordinate and execute awareness campaigns and events focused on subjects pertaining to sustainability. These projects provide students the chance to acquire knowledge about global environmental concerns, engage in dialogues, and exchange their expertise and concepts [16]. Various forms of awareness campaigns encompass seminars, workshops, quest lectures, and exhibitions. These events facilitate the formation of a community comprised of individuals who are passionate about sustainability, as they provide as a platform for professionals, practitioners, and students to convene and engage in the exchange of ideas. Engaging in these activities expands the students' viewpoints, enhances their understanding of sustainability, and motivates them to actively contribute to the development of a sustainable society [17].

In addition to their academic endeavors, institutions of higher education promote and foster student engagement in community service and sustainability efforts. This facet of education enables students to effectively utilize their acquired information and enhance their understanding of sustainability, hence fostering a heightened sense of awareness within a wider demographic. Higher education institutions foster experiential learning opportunities by establishing collaborative collaborations with community organizations, corporations, and government agencies. By means of these collaborations, students get practical understanding of sustainability concerns within their own community and engage with many individuals and groups involved in these matters. Community engagement projects provide students with opportunities to actively participate in sustainable activities that are led by the community. Through their involvement, students are able to have a direct impact on society, therefore making a tangible difference [18].



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

Furthermore, it is widely acknowledged by institutions of higher education that ethical issues play a crucial role in the realm of sustainable development. The instructors prioritize the ethical dimension of sustainability within their instructional sessions, fostering a climate that encourages students to engage in critical introspection regarding the fundamental values and principles that serve as the foundation for a sustainable society. In order to cultivate a more profound comprehension of the principles of social justice, equity, and accountability that underlie sustainable development, educational institutions facilitate this process by examining ethical quandaries and involving students in ethical dialogues related to sustainability. The cultivation of ethical awareness empowers students to make educated judgments and emphasize the welfare of both current and future generations in their endeavors. In summary, the cultivation of knowledge and awareness plays a pivotal role in the progression of Sustainable Society 5.0, as it facilitates the empowerment of students as catalysts for transformative action. Higher education institutions play a pivotal role in imparting students with the requisite knowledge and consciousness necessary to actively participate towards the advancement of a sustainable future. Institutions enhance students' capacity to become catalysts for sustainable development by incorporating sustainability principles into the curriculum, providing specialized courses, fostering research and innovation, orchestrating awareness campaigns, facilitating community engagement, and emphasizing ethical considerations. Higher education institutions serve as catalysts for motivating and empowering students to apply their acquired knowledge and skills in addressing the intricate issues of our era and fostering a more promising and enduring future for humanity as a whole.

2. Promoting the Development of Critical Thinking Skills

Critical thinking is an essential component in fostering the development of students as influential catalysts for societal transformation, particularly in the context of advancing sustainability. According to Mubarak (2004), the cultivation of critical thinking abilities in higher education is necessary in order to adequately prepare students for the examination of intricate sustainability issues, the critical assessment of information, and the generation of innovative solutions. In order to foster critical thinking, it is imperative to establish a setting that cultivates intellectual curiosity, challenges preconceived notions, and facilitates the development of independent thought. This essay aims to explore the importance of cultivating critical thinking skills in students, as it pertains to their ability to serve as catalysts for change in the context of Sustainable Society 5.0 [16].

Higher education institutions recognize that critical thinking is an essential skill that enables students to effectively address the intricate sustainability issues they may encounter [20]. Institutions cultivate an atmosphere that encourages students to engage in critical thinking, enabling them to challenge prevailing paradigms, question established conventions, and pursue inventive resolutions to urgent sustainability concerns. Students are instructed in the practice of critically analysing material, assessing other views, and formulating conclusions that are grounded in facts and sound reasoning [17]. Higher education institutions facilitate the development of critical thinking skills among students by employing diverse instructional methods, with the aim of empowering them as catalysts for societal transformation. Problem-based learning, case studies, and real-world simulations are effective pedagogical approaches that encourage students to employ critical thinking skills in addressing intricate sustainability challenges. By engaging in these activities, children cultivate the capacity to discern fundamental factors, evaluate possible outcomes, and suggest inventive resolutions [21].

In addition, institutions of higher education foster a culture that promotes independent thinking and the critical evaluation of knowledge among students. This entails providing students with guidance in discerning between factual information and subjective viewpoints, recognizing inherent biases, and critically assessing the credibility and soundness of sources. In order to foster lasting solutions, educational institutions empower students by educating them with the necessary abilities to make informed judgments and effectively articulate their thoughts. Within the framework of Sustainable Society 5.0, it is imperative for students to employ critical thinking skills in order to effectively negotiate the many interconnections that exist between humans, nature, and technology [22].

Institutions of higher education foster the development of critical thinking skills by actively encouraging students to engage in the examination of ethical ramifications associated with technical



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

advancements, the evaluation of social and environmental consequences stemming from novel technologies, and the critical assessment of their possible advantages and drawbacks. The examination of technology enables students to make well-informed choices regarding its appropriate and sustainable utilization. Higher education institutions also cultivate critical thinking through the utilization of interdisciplinary methodologies. The intricate sustainability difficulties encountered in Sustainable Society 5.0 require the imperative of collaborative efforts and the integration of interdisciplinary knowledge. Institutions promote the development of critical thinking skills that beyond conventional disciplinary boundaries through the implementation of interdisciplinary projects, so enabling students to investigate and establish links between diverse academic subjects. The acquisition of skills such as synthesizing multiple opinions, analyzing complex systems, and proposing complete solutions to sustainability concerns is a key developmental outcome for students. In addition, institutions of higher education promote and foster an environment that encourages students to actively participate in critical discourse and engage in intellectual debates. In order to foster intellectual conversation, educational institutions facilitate the exchange of ideas and opinions among students and faculty members by offering dedicated places. By engaging in a manner characterized by mutual respect and thoughtful conversation, students acquire the ability to critically examine their own preconceived notions, explore alternate perspectives, and develop a more profound comprehension of the intricate nature of sustainability issues. The exposure to many perspectives enhances students' abilities in critical thinking and constructing persuasive arguments. In summary, the cultivation of critical thinking skills plays a crucial role in equipping students with the capacity to act as catalysts for change within the context of Sustainable Society 5.0. Higher education institutions have a significant impact on the development of critical thinking skills through the use of teaching methods that aim to question assumptions, cultivate individual thinking, and facilitate interdisciplinary cooperation. By providing students with the necessary tools for critical thinking, educational institutions empower them to effectively address intricate sustainability issues, analyze information in a discerning manner, and generate innovative solutions. The development of critical thinking skills enables students to effectively drive change and make meaningful contributions towards the progress of a sustainable society.

3. The cultivation of creativity and innovation

Creativity and innovation play key roles as catalysts for societal transformation in the quest for sustainability. To facilitate the development of students as catalysts for societal transformation in Sustainable Society 5.0, it is imperative for higher education institutions to nurture creativity and promote an innovative attitude within their student body. Institutions of higher education facilitate the empowerment of students as catalysts for constructive transformation by fostering a climate that nurtures creative thinking, encourages the exploration of novel concepts, and cultivates the ability to devise inventive resolutions to sustainability predicaments. The nurturing of creativity and invention plays a crucial role in allowing students to become change agents within the framework of Sustainable Society 5.0 [21].

Higher education institutions recognize the importance of innovation in tackling intricate environmental issues. The attribute of creativity empowers pupils to approach challenges from innovative perspectives, to engage in unconventional thinking, and to produce unique concepts. Through the cultivation of creativity, educational institutions empower students to question established norms, explore alternative methodologies, and imagine a sustainable future that surpasses traditional paradigms (23). Higher education institutions cultivate creativity and innovation through the establishment of conducive environments that promote the exploration of ideas, curiosity, and the willingness to take risks. By means of design thinking workshops, innovation laboratories, and project-based learning, students are provided with avenues to actively participate in the process of creative problem-solving. These programs facilitate the development of a cognitive orientation that embraces ambiguity, places importance on experimentation, and encourages the exploration of new approaches to addressing sustainability issues [24].

Furthermore, institutions of higher education integrate creativity and innovation into their curricula through the provision of courses and programs that foster the development of innovative thinking and entrepreneurial skills. These courses equip students with the requisite information and abilities to



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

effectively execute their ideas. Institutions provide students with the required tools to bring innovative ideas to fruition by integrating aspects such as ideation, prototyping, and business development [16].

Technological improvements and the process of digitalization are of considerable importance within the framework of Sustainable Society 5.0. Institutions of higher education promote the utilization of technology as a means to foster innovation and creativity among students. By integrating nascent technologies such as artificial intelligence, blockchain, and the Internet of Things into the educational framework, educational institutions empower students to delve into pioneering applications that foster the attainment of sustainability goals. The integration of technology in education enhances students' ability to develop sustainable solutions that use the potential of digital breakthroughs (Smith, 2019, p. 25). In addition, institutions of higher education actively promote multidisciplinary collaboration as a means to cultivate creativity and develop innovation. The achievement of a Sustainable Society 5.0 requires the incorporation of transdisciplinary ideas and expertise. Institutions play a crucial role in cultivating a dynamic environment that nurtures creativity, wherein a multitude of viewpoints intersect to yield novel and inventive solutions. This is achieved through actively promoting interdisciplinary collaboration among students. Interdisciplinary initiatives, tasks that involve teamwork, and extracurricular engagements offer students valuable prospects for collaboration, idea exchange, and the acquisition of diverse viewpoints [26]. Furthermore, higher education institutions offer assistance and guidance to students in their entrepreneurial pursuits through the provision of resources and mentorship. Entrepreneurship programs, incubation centers, and company development support provide students with the opportunity to transform their unique ideas into commercially viable enterprises. Institutions foster the development of an entrepreneurial attitude, which empowers students to generate innovative solutions for sustainability concerns and actively contribute to the progression towards a sustainable society [14].

Institutions of higher education facilitate the cultivation of creativity and innovation through the promotion of student involvement with local communities and corporate collaborators. Institutions facilitate the acquisition of knowledge and promotion of collaboration by establishing platforms that enable students to engage in meaningful exchanges and discussions. These platforms serve as conduits for students to develop a deeper understanding of sustainability challenges prevalent in the real world, while also providing them with access to relevant and practical resources. Collaborative endeavors involving community organizations, businesses, and government agencies provide students the opportunity to employ their creative and innovative abilities in addressing concrete issues, thereby guaranteeing the significance and efficacy of their concepts. In summary, the cultivation of creativity and innovation plays a vital role in equipping students to become agents of change in Sustainable Society 5.0. Higher education institutions have a significant impact on cultivating settings that encourage creativity. They achieve this through integrating innovation into their educational programs, utilizing technology as a facilitator, encouraging cooperation across different disciplines, supporting entrepreneurial initiatives, and increasing involvement with the community. By fostering creativity and innovation, institutions provide students with the means to generate revolutionary ideas that contribute to the establishment of a sustainable society. Students, via their utilization of creative thinking and adoption of innovative techniques, assume the role of pivotal change agents, effectively and positively impacting the trajectory towards a more sustainable future.

4. Promoting and fostering active engagement

The active engagement of students is crucial in enabling them to become effective agents of change in their efforts towards creating a sustainable society. In the realm of higher education, institutions hold a significant responsibility in cultivating an environment that encourages students to actively participate in sustainability matters and undertake impactful initiatives. In the context of Sustainable Society 5.0, educational institutions play a crucial role in enabling students to effectively contribute to societal progress through the cultivation of active engagement. This scholarly paper explores the need of promoting active engagement in higher education in order to empower students as catalysts for societal transformation.

Higher education institutions recognize that active involvement entails involving students in practical applications and hands-on experiences related to sustainability principles. Institutions facilitate students' acquisition of a more profound comprehension of sustainability matters, the cultivation of crucial abilities,



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

and the direct engagement in sustainable efforts by offering avenues for active involvement [27]. Colleges and universities have the capacity to foster active engagement by providing experiential learning opportunities. Students have the opportunity to apply their acquired knowledge and abilities in practical settings by engaging in fieldwork, internships, and service-learning programs. These programs provide students the chance to engage in collaborative endeavors with community organizations, corporations, and government agencies, specifically in the realm of sustainability-oriented projects. Through these collaborative collaborations, students have the opportunity to acquire practical skills and experiential knowledge, while actively contributing to programs that aim to foster sustainable development[24].

In conjunction with experiential learning, higher education institutions promote and foster active engagement of students in research and initiatives pertaining to sustainability. Students have the opportunity to engage in the exploration of sustainability concerns, gather empirical evidence, and make valuable contributions to the existing body of knowledge in this subject through student-led research efforts. Active engagement in research allows students to cultivate critical thinking skills, improve problem-solving abilities, and make valuable contributions to evidence-based decision-making processes (26).

In addition, institutions of higher education provide avenues for students to participate in extracurricular activities that are focused on sustainability. Sustainability clubs, student organizations, and volunteer programs provide students the opportunity to engage in collaborative efforts with individuals who share similar interests, facilitating the organization of events and the initiation of sustainability projects on campus. These extracurricular activities facilitate the cultivation of a communal spirit, provide avenues for the development of leadership skills, and promote a sense of responsibility among students towards sustainability projects.

Furthermore, institutions of higher education facilitate active engagement by implementing inclusive governance systems. The involvement of students in decision-making processes pertaining to campus sustainability fosters their active participation and empowers them to shape institutional policies and practices. The inclusion of students in sustainability committees and their active involvement in sustainability planning processes serves to incorporate their viewpoints and suggestions, so cultivating a sense of ownership and dedication within the student body.

Higher education institutions promote and foster student engagement in the collaborative development of sustainable solutions within the framework of Sustainable Society 5.0. Design thinking workshops, innovation challenges, and hackathons serve as effective platforms for fostering student engagement, promoting ideation, and facilitating the creation of innovative solutions to address sustainability concerns. Through active participation in these activities, students have the opportunity to enhance their creativity, critical thinking, and problem-solving abilities, all while making valuable contributions to the advancement of sustainable solutions [28].

Higher education institutions actively promote and foster student engagement in advocacy endeavors pertaining to sustainability. Students has the capacity to exert influence over public opinion, policy-making processes, and social attitudes pertaining to sustainability through the means of raising awareness, orchestrating campaigns, and actively participating in public debate. Higher education institutions play a crucial role in facilitating and bolstering students' advocacy endeavors through the provision of various resources, mentorship opportunities, and platforms that amplify their voices. Furthermore, institutions of higher education actively cultivate international alliances and partnerships in order to facilitate the promotion of global viewpoints and cross-cultural understanding among students. Exchanges, study abroad programs, and overseas research projects provide students the valuable chance to explore sustainability concerns via diverse cultural lenses. Engagement in these endeavors enhances students' intercultural proficiency, expands their horizons, and fosters a worldwide outlook on sustainable development. In summary, the promotion of active engagement plays a crucial role in empowering students as catalysts for change within the context of Sustainable Society 5.0. Higher education institutions play a pivotal role in cultivating active engagement through the provision of experiential learning opportunities, support for student-led initiatives, promotion of inclusive governance, facilitation of sustainable solution co-creation, encouragement of advocacy endeavors, fostering of international collaborations, and cultivation of cross-cultural understanding. Through active participation in sustainability-related endeavors, students acquire the necessary knowledge, skills, and mindset to



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

effectively catalyse constructive transformations and make valuable contributions towards the advancement of a more sustainable society. By actively engaging in various activities, students assume the role of catalysts in promoting sustainable development, thereby generating tangible and long-lasting effects on both their local communities and the global sphere. I apologize, but I cannot provide a response without any text or context. Please provide more The cultivation of collaboration and networking.

In the endeavor to establish a sustainable society, the active involvement of students as catalysts for transformation is greatly facilitated by the practice of collaboration and networking. Institutions of higher education bear a crucial responsibility in fostering cooperation and networking possibilities among students, serving as a forum for collective problem-solving, information exchange, and mutual assistance. In the context of Sustainable Society 5.0, educational institutions play a crucial role in enabling students to assume the role of proactive catalysts for constructive transformation through the cultivation of collaborative environments and the facilitation of networking opportunities. This scholarly study explores the importance of cultivating collaboration and networking as means to empower students in becoming catalysts for change within the realm of higher education.

Higher education institutions recognize that addressing sustainability challenges requires collaboration and the inclusion of many perspectives in order to develop novel and effective solutions. Institutions establish conducive environments that promote student collaboration, idea sharing, and the integration of diverse skills and knowledge through the cultivation of collaborative practices. Collaboration facilitates the creation of synergy, as students leverage one other's abilities, knowledge, and perspectives to effectively tackle intricate sustainability challenges (29).

By implementing multidisciplinary projects and assigning team-based tasks, institutions of higher education have the ability to cultivate a culture of collaboration. Institutions foster the exchange of multiple perspectives and the integration of varied expertise in problem-solving by facilitating the collaboration of students from different disciplines of study [25]. The enhancement of students' critical thinking, creativity, and collaborative abilities is facilitated through interdisciplinary collaboration, thereby equipping them with the necessary competencies to tackle the multifaceted issues posed by Sustainable Society 5.0 [16].

Moreover, institutions of higher education provide networking possibilities that facilitate students' engagement with persons who share similar interests, as well as experts and professionals in the realm of sustainability. Networking events, conferences, and workshops provide students with opportunities to engage with industry leaders, sustainability practitioners, and alumni who are actively involved in sustainability efforts. Networking opportunities play a crucial role in enabling the exchange of knowledge, mentorship, and the establishment of professional relationships, which can greatly support students in their future pursuits as catalysts for societal transformation.

Furthermore, higher education institutions foster collaboration and networking through establishing relationships with community organizations, corporations, and government agencies. These collaborations provide students with the chance to participate in practical sustainability initiatives and cooperate with professionals in the respective domain. Collaborative endeavors facilitate the transfer of knowledge, development of skills, and reciprocal learning, as students actively participate in sustainable endeavors while obtaining direction and experience from external collaborators [30].

In the framework of Sustainable Society 5.0, higher education institutions actively promote global collaboration and networking. International collaborations, study abroad programs, and virtual platforms facilitate the opportunity for students to engage with peers from diverse nations and cultures[31]. The cross-cultural connections mentioned serve to cultivate a comprehensive worldview, enhance proficiency in intercultural communication, and promote the sharing of ideas and optimal approaches in the realm of sustainability. In order to equip students with the necessary skills to tackle sustainability concerns that necessitate collective action and global cooperation, educational institutions play a crucial role through promoting global collaboration [32].

Furthermore, higher education institutions acknowledge the importance of cultivating collaboration among students and faculty members within the academic setting. By means of sustainability clubs, research groups, and seminars, they foster discourse, cooperation, and the dissemination of knowledge. These platforms serve as catalysts for student and faculty engagement, fostering conversations, knowledge sharing, and collaborative endeavors pertaining to the field of sustainability. The establishment



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

of collaborative efforts within the institution cultivates a communal atmosphere, enhances multidisciplinary linkages, and encourages a culture that values collaboration and innovation (33).

Through the encouragement of student-led projects, institutions of higher education cultivate an environment that nurtures collaboration and facilitates networking opportunities. The group offers support and resources to student clubs and organizations that prioritize sustainability. This support empowers students to effectively plan and execute events, projects, and campaigns [26]. These programs facilitate the collaboration of students with their peers, faculty members, and external partners in order to advance lasting change within the campus and local community [34].

Higher education institutions also foster collaboration and networking through their contact with alumni. In order to foster connections between current students and graduates in sustainability-related professions, they implement alumni networks and mentoring initiatives. Alumni play a crucial role in offering guidance, coaching, and facilitating professional contacts for students who possess the ambition to make a constructive impact in their respective domains. The active participation of alumni cultivates a perception of ongoing connection and a framework of sustainability pioneers who provide assistance and enable subsequent cohorts. According to the findings of Sustainable Society 5.0, it is imperative to cultivate collaboration and networking in order to effectively empower students as catalysts for societal transformation. In the realm of fostering collaborative environments, institutions of higher education play a pivotal role. They achieve this by providing interdisciplinary opportunities, organizing networking events, establishing partnerships with external stakeholders, promoting cross-cultural interactions, facilitating collaboration within the institution, supporting student-led initiatives, and engaging alumni. By engaging in collaborative efforts and establishing networks, students are able to acquire a wide range of viewpoints, tap into collective wisdom, and access valuable resources. This enables them to effectively tackle intricate sustainability challenges. Through the promotion of collaboration and networking, educational institutions facilitate the development of students into proactive agents of change, so facilitating their contribution towards the advancement of a more sustainable society.

5. Promoting Ethical Accountability

The cultivation of ethical responsibility is crucial for empowering students to become active agents of change in their efforts towards creating a sustainable society. Institutions of higher education play a pivotal role in cultivating students' ethical consciousness and building a strong sense of responsibility. Educational institutions play a crucial role in fostering the development of ethical leadership skills among students, enabling them to effectively navigate the intricate challenges posed by Sustainable Society 5.0. By actively encouraging ethical conduct and decision-making, these institutions contribute to the advancement of sustainable development. This essay aims to explore the importance of cultivating ethical responsibility in empowering students as agents of change within the realm of higher education.

Institutions of higher education recognize the significance of ethical responsibility in relation to the attainment of sustainable development. The authors highlight the importance of incorporating ethical considerations into educational practices and environmental projects. Institutions aim to cultivate a deep comprehension of the ethical aspects of sustainability concerns among students, with the intention of cultivating a feeling of duty towards the environment, society, and future generations. This is achieved through the promotion of ethical responsibility. [35]

One approach employed by higher education institutions to foster ethical responsibility is the integration of ethics courses or modules within the curriculum. These courses explore the ethical theories, ideas, and frameworks that are related with the concepts of sustainability and a sustainable society. The user has provided a numerical value of 5.0. Students engage in a rigorous analysis of ethical challenges, engaging in critical examination and thoughtful deliberation on the moral implications involved. Through this process, they develop the required competencies to effectively navigate and make ethically sound judgments within intricate sustainability frameworks. According to the literature, students are provided with the requisite information and abilities to effectively address the ethical aspects of sustainability concerns and give precedence to the collective welfare through the implementation of ethical education [26].

Furthermore, institutions of higher education actively foster ethical responsibility by incorporating sustainability and ethical considerations into several academic areas. The importance of ethical conduct is



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

underscored in various domains, such as business, engineering, health sciences, and the social sciences. Through the integration of ethics into discipline-specific teaching, educational institutions empower students to critically analyze the ethical ramifications of their professional endeavors and make well-informed choices that emphasize the principles of sustainability [3].

Institutions of higher education play a crucial role in promoting ethical responsibility by cultivating a campus culture that places significant emphasis on ethical behavior and the principles of sustainability. Ethical norms and values are actively promoted within the campus community through various efforts, including the implementation of codes of conduct and environmental policies. Educational institutions endeavor to foster the adoption of an ethical way of life among students through the promotion of waste reduction, responsible consumption, and social justice. Institutions establish an environment in which ethical duty is both instructed and implemented, thereby cultivating an ethical atmosphere on campus [9].

Furthermore, educational institutions at the tertiary level promote and foster the active participation of students in ethical contemplation and the cultivation of critical thinking skills. They promote ethical dialogues, discussions, and contemplation around sustainability matters. Through the facilitation of discourse and the promotion of critical thought, educational institutions provide students with the opportunity to explore diverse ethical perspectives, question their own preconceived notions, and cultivate their ethical reasoning abilities. The practice of ethical reflection facilitates the development of students' awareness regarding the fundamental values and principles that underpin their behaviors. This process empowers them to make decisions that align with their ethical convictions [36]. Furthermore, institutions of higher education actively encourage community engagement and service-learning initiatives in order to cultivate a sense of ethical responsibility. Students are afforded the chance to actively participate in local communities and tackle sustainability issues in conjunction with community members through the implementation of community-based projects. This exercise facilitates the exposure of students to a wide range of perspectives, aids in their understanding of the societal ramifications of sustainability concerns, and nurtures a sense of accountability towards marginalized populations and vulnerable communities [2]. Furthermore, educational institutions promote the contemplation of ethical ramifications associated with technical advancements in Sustainable Society 5.0. Within the realm of new technologies, researchers delve into inquiries pertaining to privacy, data security, and equity. In order to foster sustainable development, institutions play a crucial role in advocating for a conscientious and principled utilization of technology. This is achieved by actively encouraging students to engage in critical evaluation of the societal, environmental, and ethical aspects associated with technological progress [37].

Higher education institutions play a crucial role in fostering ethical responsibility by doing research on sustainability. It is strongly encouraged for students to integrate ethical issues into their research endeavors, so ensuring that their methodology and conclusions align with established ethical norms. Institutions play a crucial role in cultivating a culture that promotes responsible research, with a particular emphasis on safeguarding the welfare of participants and facilitating ethical decision-making in the realm of sustainability. This is achieved through the promotion and advocacy of ethical research procedures. In summary, the cultivation of ethical responsibility plays a crucial role in equipping students with the capacity to act as catalysts for change in the context of Sustainable Society 5.0. In the realm of higher education, institutions hold a crucial position in cultivating ethical consciousness, incorporating ethics into the educational framework, advocating for ethical conduct, facilitating introspection on ethical matters. fostering community involvement, addressing the ethical ramifications of technology, and endorsing ethical research methodologies. Institutions play a crucial role in equipping students with the necessary skills and knowledge to assume positions of ethical leadership. These individuals are then able to effectively address sustainability concerns while upholding principles of integrity. By instilling a sense of ethical responsibility, institutions enable students to make decisions that positively impact the well-being of both the planet and its people. Through the cultivation of ethical behavior and the exercise of responsible decision-making, students assume the role of catalysts for transformative change, propelling sustainable development and the construction of a society characterized by principles of justice and equity.



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

6. enhancement of digital literacy

Digital literacy plays a pivotal role in empowering students as catalysts for societal transformation in the context of fostering sustainability. Higher education institutions bear the obligation of providing students with the necessary digital skills and competencies to effectively navigate the digital landscape and harness technology for sustainable development within the context of Sustainable Society 5.0. In the pursuit of fostering a Sustainable Society 5.0, educational institutions play a pivotal role in equipping students with the necessary skills and knowledge to effectively contribute as agents of change. One key aspect of this empowerment is in the promotion of digital literacy among students. This essay explores the importance of fostering digital literacy within the context of higher education in order to empower students as catalysts for societal transformation.

Higher education institutions recognize the significance of digital literacy in enabling students to excel in the digital world and make meaningful contributions towards sustainable development. Digital literacy covers a range of competencies, which include the capacity to discover, assess, and scrutinize material on the internet; to proficiently traverse digital tools and platforms; to communicate and collaborate proficiently in digital settings; and to effectively employ technology for problem-solving and innovative purposes (5).

One approach employed by higher education institutions to foster digital literacy is the integration of digital literacy into the curriculum across many academic areas. The institution offers educational programs and modules that prioritize the cultivation of digital literacy skills and capabilities. These courses provide students the opportunity to explore subjects such as information literacy, digital communication, data analysis, and digital creativity. Incorporation of digital literacy into the curriculum is a strategic measure undertaken by educational institutions to provide students with the essential competencies required for effectively navigating the digital realm and harnessing technological advancements to foster sustainable development [1].

Moreover, institutions of higher education provide students the opportunity to avail themselves of digital tools, resources, and technology that augment their proficiency in digital literacy. The organization offers workshops and training sessions focused on instructing individuals in the utilization of digital tools and platforms. These include data visualization software, programming languages, and collaborative tools. Educational institutions facilitate the development of students' ability to successfully employ technology in their endeavors towards sustainable solutions through the provision of practical experiences and access to diverse digital resources [6].

Furthermore, higher education institutions facilitate the development of digital literacy by offering experiential learning opportunities. The educational institution advocates for the implementation of project-based learning, wherein students utilize digital tools and technologies to address tangible sustainability challenges in the real world. These experiences provide students the opportunity to develop practical digital literacy skills, including data analysis, data visualization, and digital storytelling, while actively participating in endeavors that advance sustainability. The utilization of experiential learning methodologies empowers students to cultivate a sense of self-assurance in their digital proficiency, enabling them to effectively employ technology as a means to advance the cause of sustainable development [20].

Higher education institutions facilitate the development of digital literacy by incorporating it into the curriculum and organizing extracurricular events and initiatives. In order to promote digital literacy among students, educational institutions construct dedicated centers or laboratories. These facilities serve as hubs where students can conveniently access a wide range of materials, receive necessary assistance, and engage in collaborative projects. The aforementioned canters serve as central locations for fostering innovation, creativity, and problem-solving abilities, offering students an environment to enhance their digital literacy competencies and engage in projects centered around sustainability [24].

Furthermore, institutions of higher education cultivate digital literacy by actively encouraging ethical considerations and fostering critical thinking within the digital domain. The authors place significant emphasis on the evaluation of online information's reliability and dependability, the comprehension of privacy and data security issues, and the critical analysis of the social and environmental ramifications of digital technologies. Institutions play a crucial role in fostering critical thinking and ethical contemplation



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

among students, so equipping them with the necessary skills to responsibly navigate the digital realm and align their decision-making with sustainability goals [18].

Furthermore, institutions of higher education actively promote and foster student participation in digital collaboration and networking. Online forums, social media groups, and virtual conferences provide students with the chance to engage in interactions with their classmates, experts, and professionals who specialize in the topic of sustainability [22]. The availability of digital collaboration and networking platforms provides students with opportunities to engage in the exchange of ideas, information sharing, and the establishment of important connections. These activities serve to enhance their role as catalysts for change within the context of a Sustainable Society. The value of 5.0 is indicated by the numerical notation [38].

Higher education institutions acknowledge the need of fostering digital literacy within underrepresented communities and assuring their inclusion in the digital realm. Their efforts aim to mitigate the digital divide by offering marginalized groups access to digital resources and technologies. Furthermore, institutions provide backing for digital literacy projects that seek to empower individuals within these communities by imparting them with the requisite skills and knowledge to effectively employ technology for the purpose of achieving sustainable development. In order to promote the active involvement and contribution of all students in the development of Sustainable Society 5.0, educational institutions prioritize the cultivation of digital inclusion, thereby ensuring equal chances for participation. The promotion of digital literacy is a crucial factor in empowering students as agents of change within the context of Sustainable Society 5.0. Higher education institutions play a crucial role in integrating digital literacy into the curriculum, facilitating access to digital tools and technologies, facilitating experiential learning opportunities, establishing centers dedicated to digital literacy, promoting critical thinking and ethical considerations, fostering digital collaboration and networking, and advocating for digital inclusion. Institutions empower students by equipping them with digital literacy skills, thereby facilitating their adeptness in navigating the digital realm, leveraging technology for sustainable development, and actively participating in the transition towards a more sustainable society. Students are empowered to enact positive transformations by virtue of their proficiency in digital literacy, harnessing technology as a powerful tool in the endeavor to achieve a sustainable future.

4.CONCLUSION

In the context of Sustainable Society 5.0, institutions of higher education have significant importance in equipping students with the necessary skills and knowledge to effectively contribute as catalysts for change. This encompasses the development of knowledge and consciousness through a curriculum that integrates several disciplines, the provision of specialized courses, the promotion of research and innovation, the organization of awareness campaigns, and the facilitation of community involvement. In order to foster a heightened understanding and value for social justice, equity, and accountability, educational institutions actively promote and encourage student involvement in community service and sustainability endeavors.

The cultivation of critical thinking and innovation is vital for those who aspire to become successful agents of change in the pursuit of a sustainable society. The user's text is a numerical value. Incorporation of creativity and innovation into curricula can be achieved by universities through various activities such as design thinking workshops, innovation laboratories, and project-based learning. The integration of emerging technologies, such as artificial intelligence, blockchain, and the Internet of Things, into educational curricula is heavily influenced by breakthroughs in technology and the process of digitalization.

The nurturing of innovation and creativity necessitates the collaboration across several disciplines. For the purpose of fostering the development of innovative solutions that positively impact a sustainable society, it is imperative that educational institutions extend their support towards entrepreneurial initiatives by offering necessary resources and guidance. Active student participation is crucial in higher education to effectively engage with sustainability challenges and undertake substantial actions. It is imperative for



P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

institutions to actively support experiential learning, student-led initiatives, inclusive governance, and the collaborative development of sustainable solutions.

In order to cultivate students who possess the capacity to navigate the intricate dynamics of Sustainable Society 5.0 and actively contribute to the advancement of sustainable development, the cultivation of ethical responsibility is imperative. The inclusion of ethics courses or modules within the curriculum provides students with the opportunity to get a comprehensive understanding of ethical issues, engage in discussions regarding the moral consequences associated with these difficulties, and cultivate the necessary abilities to make informed decisions with ethical considerations in mind, particularly within intricate sustainability contexts. Digital literacy is a crucial skill set that enables individuals to effectively traverse the digital landscape, harness technology for sustainable development, and actively contribute to the advancement of a more sustainable society.

Referensi

- [1] V. D. Pavaloaia, O. Dospinescu, S. C. Necula, and C. Strimbei, "Sustainable community development through master curricula and career path improvements in an emerging city of it & outsourcing industry from CEE," *Transform. Bus. Econ.*, vol. 17, no. 2B, pp. 738–759, 2018.
- [2] O. Saadatian, E. Salleh, O. M. Tahir, and K. Dola, "Significance of Community in Malaysian Higher Educational Institutions Sustainability," *J. Soc. Sci. Humanit.*, vol. 19, no. 3, pp. 243–262, 2011, [Online]. Available: http://penerbit.upm.edu.my
- [3] A. Cerezo-Narváez, I. de los R. Carmenado, A. Pastor-Fernández, J. L. Y. Blanco, and M. Otero-Mateo, "Project Management Competences and Sustainable Development in Higher Education: Case Studies from Two Spanish Public Universities," *Soc. Psychol. Educ. study*, vol. 9, no. 1, pp. 45–58, 2018, doi: 10.20944/preprints201804.0003.v1.
- [4] R. Lozano, "Proposing a definition and a framework of organisational sustainability: A review of efforts and a survey of approaches to change," *Sustainability*, vol. 10, no. 1, pp. 1–21, 2018, [Online]. Available: https://www.mdpi.com/2071-1050/10/4/1157
- [5] V. Winter, J. Kranz, and A. Möller, "Climate change education challenges from two different perspectives of change agents: Perceptions of school students and pre-service teachers," *Sustainability*, 2022, [Online]. Available: https://www.mdpi.com/2071-1050/14/10/6081
- [6] D. E. Bloom, D. Canning, and K. Chan, *Higher education and economic development in Africa*. Cape Town: edu-links.org, 2016. [Online]. Available: https://www.edu-links.org/sites/default/files/media/file/BloomAndCanning.pdf
- [7] S. Temporin, "Higher education and society in Tunisia: re-thinking university and students social responsibility," *Hemispheres*, vol. 29, no. 3, pp. 65–78, 2014, [Online]. Available: https://search.proquest.com/openview/1bafc3b21fa85787cebe2c615b18e70f/1?pq-origsite=gscholar%5C&cbl=856346
- [8] P. S. Aithal and S. Aithal, "Implementation strategies of higher education part of national education policy 2020 of India towards achieving its objectives," *Int. J. Manag. ...*, vol. 57, no. 1, pp. 1–40, 2020, [Online]. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3741425
- [9] C. Solís-Espallargas, J. Ruiz-Morales, D. Limón-Domínguez, and R. Valderrama-Hernández, "Sustainability in the university: A study of its presence in curricula, teachers and students of education," *Sustain.*, vol. 11, no. 23, pp. 1–14, 2019, doi: 10.3390/su11236620.
- [10] A. Abdalslam, L. Jdennis, and G. T. Owen, "Qualitative Methods in Higher Education Policy Analysis: Using Interviews and Document Analysis Related papers T he Qualit at ive Report Qualit at ive Met hods in Higher Education Policy Analysis: Using Interviews and Document Analysis," Qual. Rep., vol. 19, pp. 1–19, 2014, Accessed: Oct. 29, 2022. [Online]. Available: http://www.nova.edu/ssss/QR/QR19/owen52.pdf
- [11] A. Togia and A. Malliari, "Research Methods in Library and Information Science," in *Qualitative versus Quantitative Research*, no. July, 2017, p. 52. doi: 10.5772/intechopen.68749.
- [12] K. Sanders, J. A. Cogin, and H. T. J. Bainbridge, "Research methods for human resource management," Res. Methods Hum. Resour. Manag., pp. 1–161, Jan. 2013, doi:



Vol. 3 No. 2 Januari 2024 P-ISSN: 2808-036X | E-ISSN: 2808-0181 Journal of Smart System (JSS)

10.4324/9781315852300.

- [13] N. A. Alaagib, O. A. Musa, and A. M. Saeed, "Comparison of the effectiveness of lectures based on problems and traditional lectures in physiology teaching in Sudan," *BMC Med. Educ.*, vol. 19, no. 1, pp. 1–8, 2019, doi: 10.1186/s12909-019-1799-0.
- [14] H. Husni and A. N. Atoillah, "Islamic Education, Insan Kamil, and the Challenges of the Era of Society 5.0: A Literature Review," *J. Penelit. Pendidik. Islam*, vol. 10, no. 1, p. 67, 2022, doi: 10.36667/jppi.v10i1.1005.
- [15] Ryan, Cooper, and Tauer, *Learning to Read and Reading to learn*, 9th ed. Dublin: Reading Association of Ireland, 2013.
- [16] A. Paramansyah and U. D. Rostandi, "Implementation of Education Management in the Era of Society 5.0," *Laa Roiba*, vol. 1, no. 23, pp. 141–152, 2021.
- [17] A. S. Maadi, "Digitalisasi Manajemen Pendidikan Islam dan Ekonomi Syariah di Perguruan Tinggi," *Al-Kairat*, vol. 7, no. 1, pp. 24442–2401, 2018.
- [18] A. Pihar, "Modernization of Islamic Religious Education in the Era of Society," *B. Chapter Proc. Journey-Liaison Journey-Liaison Acad. Soc.*, vol. 1, no. 1, p. pp.1-12, 2022.
- [19] F. Mubarak, "Faktor dan indikator mutu pendidikan islam," *J. Manag. Educ.*, vol. 1, no. 1, pp. 10–18, 2004.
- [20] A. H. Resufle and M. Rofiki, "Management of Islamic Education in the Challenges of Society 5.0," *Edukatif J. Ilmu Pendidik.*, vol. 4, no. 3, pp. 4578–4588, 2022, doi: 10.31004/edukatif.v4i3.2820.
- [21] E. Ramadina, I. Agama, I. Negeri, and I. Tulungagung, "Aktualisasi Supervisi Artistik dalam Manajemen Pendidikan Islam," *Attract. Innov. Educ. J.*, vol. 3, no. 1, pp. 91–101, 2021.
- [22] H. Hermawansyah, "Manajemen Pendidikan Berbasis Informasi Di Era Society 5.0," *Fitrah J. Stud. Pendidik.*, vol. 13, no. 1, pp. 46–57, 2022, doi: 10.47625/fitrah.v13i1.369.
- [23] S. Bahri, "Konsep Pembelajaran PAI di Era Society 5.0," *Edupedia*, vol. 6, no. 2, pp. 133–145, 2022.
- [24] A. Hidayat, S. Fatimah, and D. N. Rosidin, "Challenges and Prospects of Islamic Education Institutions and Sustainability in The Digital Era," *Nazhruna J. Pendidik. Islam*, vol. 5, no. 2, pp. 351–366, 2022.
- [25] S. Surahman, M. Mudofir, and B. Baidi, "Response Of Islamic Educational Institutions TowardsThe Era of Society 5.0," *At-Tarbiyat J. ...*, vol. 4, no. 3, pp. 370–380, 2021, [Online]. Available: http://jurnal.staiannawawi.com/index.php/At-Tarbiyat/article/view/315%0Ahttps://jurnal.staiannawawi.com/index.php/At-Tarbiyat/article/download/315/227
- [26] A. Afwan Yazid, "Existence of Islamic education in the era of society revolution 5.0," *AMCA J. Relig. Soc.*, vol. 1, no. 1, pp. 13–15, 2021, doi: 10.51773/ajrs.v1i1.34.
- [27] B. Q. Ayuni, S. R. Umaria, and A. Putri, "Cybercounseling Sebagai Inovasi Konselor Menghadapi Tantangan Disrupsi Pada Era Society 5.0," *J. Bimbing. Dan Konseling Ar-Rahman*, vol. 7, no. 2, p. 100, 2021, doi: 10.31602/jbkr.v7i2.5842.
- [28] M. K. Umam, "Dinamisasi Manajemen Mutu Persfektif Pendidikan Islam," *J. Al-Hikmah*, vol. 8, no. 2, pp. 61–74, 2020.
- [29] M. Ilyasin, "Epistemologi Pendidikan Islam Monokotomik: Menakar Manajemen Pendidikan Paripurna Berbasis Rasionalistik- Wahyuistik," *At-Turas*, vol. 3, no. 1, pp. 71–87, 2016.
- [30] A. Hadiapurwa, P. Riani, M. F. Yulianti, and E. K. Yuningsih, "Implementasi Merdeka Belajar untuk Membekali Kompetensi Generasi Muda dalam Menghadapi Era Society 5.0," *Al-Mudarris (Jurnal Ilm. Pendidik. Islam.*, vol. 4, no. 1, pp. 115–129, 2021, doi: 10.23971/mdr.v4i1.3140.
- [31] D. Sirojudin and H. Ashoumi, "Aksiologi ilmu pengetahuan manajemen pendidikan islam," *Aladaroh*, vol. 4, no. September, pp. 182–195, 2020.
- [32] A. Ridho, K. E. Wardhana, A. S. Yuliana, I. N. Qolby, and Z. Zalwana, "Implementasi Pendidikan Multikutural Berbasis Teknologi Dalam Menghadapi Era Society 5.0," *Educ. J. Pendidikan, Pengajaran, dan Pembelajaran*, vol. 7, no. 3, pp. 195–213, 2022, doi: 10.21462/educasia.v7i3.131.
- [33] I. K. Khaira, E. Susilawati, and R. Renaldi, "Implementasi Rancangan Pembelajaran Berbasis



Vol. 3 No. 2 Januari 2024 P-ISSN: 2808-036X | E-ISSN: 2808-0181

Journal of Smart System (JSS)

Tpack Sebagai Integrasi Pembelajaran Di Era Society 5.0 Untuk Meningkatkan Hasil Belajar Mata Kuliah Ekonomi Kesehatan," *J. Teknol. Pendidik.*, vol. 14, no. 2, p. 111, 2021, doi: 10.24114/jtp.v14i2.28336.

- [34] R. Utami, "Integrasi Kurikulum di Indonesia dalam Menghadapi Era Society 5.0," *J. FTIK*, vol. 1, no. 21, pp. 213–218, 2019.
- [35] F. H. Bahtiyar, Mufliha, N. Ainiy, I. Ngarifah, N. Muflidah, and R. Taufiqurrochman, "Manhaj Ta'līm al-Lughah al-'Arabīyah 'alá Asās takayyuf santri fī 'aṣr al-Mujtama' 5.0 :al-Mafhūm wa-al-āṣār," *Al-Tadris J. Pendidik. Bhs. Arab*, vol. 10, no. 2, pp. 304–330, 2022.
- [36] P. M. A. Castellanos, A. Queiruga-Dios, A. H. Encinas, and L. C. Acosta, "Environmental education in environmental engineering: Analysis of the situation in Colombia and Latin America," *Sustain.*, vol. 12, no. 18, pp. 1–14, 2020, doi: 10.3390/su12187239.
- [37] A. Gunawardana, F. R. Arooz, and ..., "Critical analysis of lecturer's perception on integrating concepts of sustainability in university curricular," ... Sci. Educ. ..., vol. 1, no. 3, pp. 109–121, 2020, [Online]. Available: https://cahaya-ic.com/index.php/ISEJ/article/view/105
- [38] M. Uyun, "Islamic Education System in Welcoming the Era of Society 5.0," *Islama J. Pendidik. Islam*, vol. 7, no. 2, pp. 221–233, 2023, doi: 10.24269/ijpi.v7i2.6071.
- [1] V. D. Pavaloaia, O. Dospinescu, S. C. Necula, and C. Strimbei, "Sustainable community development through master curricula and career path improvements in an emerging city of it & outsourcing industry from CEE," *Transform. Bus. Econ.*, vol. 17, no. 2B, pp. 738–759, 2018.
- [2] O. Saadatian, E. Salleh, O. M. Tahir, and K. Dola, "Significance of Community in Malaysian Higher Educational Institutions Sustainability," *J. Soc. Sci. Humanit.*, vol. 19, no. 3, pp. 243–262, 2011, [Online]. Available: http://penerbit.upm.edu.my
- [3] A. Cerezo-Narváez, I. de los R. Carmenado, A. Pastor-Fernández, J. L. Y. Blanco, and M. Otero-Mateo, "Project Management Competences and Sustainable Development in Higher Education: Case Studies from Two Spanish Public Universities," *Soc. Psychol. Educ. study*, vol. 9, no. 1, pp. 45–58, 2018, doi: 10.20944/preprints201804.0003.v1.
- [4] R. Lozano, "Proposing a definition and a framework of organisational sustainability: A review of efforts and a survey of approaches to change," *Sustainability*, vol. 10, no. 1, pp. 1–21, 2018, [Online]. Available: https://www.mdpi.com/2071-1050/10/4/1157
- [5] V. Winter, J. Kranz, and A. Möller, "Climate change education challenges from two different perspectives of change agents: Perceptions of school students and pre-service teachers," *Sustainability*, 2022, [Online]. Available: https://www.mdpi.com/2071-1050/14/10/6081
- [6] D. E. Bloom, D. Canning, and K. Chan, *Higher education and economic development in Africa*. Cape Town: edu-links.org, 2016. [Online]. Available: https://www.edu-links.org/sites/default/files/media/file/BloomAndCanning.pdf
- [7] S. Temporin, "Higher education and society in Tunisia: re-thinking university and students social responsibility," *Hemispheres*, vol. 29, no. 3, pp. 65–78, 2014, [Online]. Available: https://search.proquest.com/openview/1bafc3b21fa85787cebe2c615b18e70f/1?pq-origsite=gscholar%5C&cbl=856346
- [8] P. S. Aithal and S. Aithal, "Implementation strategies of higher education part of national education policy 2020 of India towards achieving its objectives," *Int. J. Manag. ...*, vol. 57, no. 1, pp. 1–40, 2020, [Online]. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3741425
- [9] C. Solís-Espallargas, J. Ruiz-Morales, D. Limón-Domínguez, and R. Valderrama-Hernández, "Sustainability in the university: A study of its presence in curricula, teachers and students of education," *Sustain.*, vol. 11, no. 23, pp. 1–14, 2019, doi: 10.3390/su11236620.
- [10] A. Abdalslam, L. Jdennis, and G. T. Owen, "Qualitative Methods in Higher Education Policy Analysis: Using Interviews and Document Analysis Related papers T he Qualit at ive Report Qualit at ive Met hods in Higher Education Policy Analysis: Using Interviews and Document Analysis," Qual. Rep., vol. 19, pp. 1–19, 2014, Accessed: Oct. 29, 2022. [Online]. Available: http://www.nova.edu/ssss/QR/QR19/owen52.pdf
- [11] A. Togia and A. Malliari, "Research Methods in Library and Information Science," in Qualitative



Vol. 3 No. 2 Januari 2024 P-ISSN: 2808-036X | E-ISSN: 2808-0181 Journal of Smart System (JSS)

- versus Quantitative Research, no. July, 2017, p. 52. doi: 10.5772/intechopen.68749.
- [12] K. Sanders, J. A. Cogin, and H. T. J. Bainbridge, "Research methods for human resource management," Res. Methods Hum. Resour. Manag., pp. 1–161, Jan. 2013, doi: 10.4324/9781315852300.
- [13] N. A. Alaagib, O. A. Musa, and A. M. Saeed, "Comparison of the effectiveness of lectures based on problems and traditional lectures in physiology teaching in Sudan," *BMC Med. Educ.*, vol. 19, no. 1, pp. 1–8, 2019, doi: 10.1186/s12909-019-1799-0.
- [14] H. Husni and A. N. Atoillah, "Islamic Education, Insan Kamil, and the Challenges of the Era of Society 5.0: A Literature Review," *J. Penelit. Pendidik. Islam*, vol. 10, no. 1, p. 67, 2022, doi: 10.36667/jppi.v10i1.1005.
- [15] Ryan, Cooper, and Tauer, Learning to Read and Reading to learn, 9th ed. Dublin: Reading Association of Ireland, 2013.
- [16] A. Paramansyah and U. D. Rostandi, "Implementation of Education Management in the Era of Society 5.0," *Laa Roiba*, vol. 1, no. 23, pp. 141–152, 2021.
- [17] A. S. Maadi, "Digitalisasi Manajemen Pendidikan Islam dan Ekonomi Syariah di Perguruan Tinggi," *Al-Kairat*, vol. 7, no. 1, pp. 24442–2401, 2018.
- [18] A. Pihar, "Modernization of Islamic Religious Education in the Era of Society," *B. Chapter Proc. Journey-Liaison Journey-Liaison Acad. Soc.*, vol. 1, no. 1, p. pp.1-12, 2022.
- [19] F. Mubarak, "Faktor dan indikator mutu pendidikan islam," *J. Manag. Educ.*, vol. 1, no. 1, pp. 10–18, 2004.
- [20] A. H. Resufle and M. Rofiki, "Management of Islamic Education in the Challenges of Society 5.0," *Edukatif J. Ilmu Pendidik.*, vol. 4, no. 3, pp. 4578–4588, 2022, doi: 10.31004/edukatif.v4i3.2820.
- [21] E. Ramadina, I. Agama, I. Negeri, and I. Tulungagung, "Aktualisasi Supervisi Artistik dalam Manajemen Pendidikan Islam," *Attract. Innov. Educ. J.*, vol. 3, no. 1, pp. 91–101, 2021.
- [22] H. Hermawansyah, "Manajemen Pendidikan Berbasis Informasi Di Era Society 5.0," *Fitrah J. Stud. Pendidik.*, vol. 13, no. 1, pp. 46–57, 2022, doi: 10.47625/fitrah.v13i1.369.
- [23] S. Bahri, "Konsep Pembelajaran PAI di Era Society 5.0," *Edupedia*, vol. 6, no. 2, pp. 133–145, 2022.
- [24] A. Hidayat, S. Fatimah, and D. N. Rosidin, "Challenges and Prospects of Islamic Education Institutions and Sustainability in The Digital Era," *Nazhruna J. Pendidik. Islam*, vol. 5, no. 2, pp. 351–366, 2022.
- [25] S. Surahman, M. Mudofir, and B. Baidi, "Response Of Islamic Educational Institutions TowardsThe Era of Society 5.0," At-Tarbiyat J. ..., vol. 4, no. 3, pp. 370–380, 2021, [Online]. Available: http://jurnal.staiannawawi.com/index.php/At-Tarbiyat/article/view/315%0Ahttps://jurnal.staiannawawi.com/index.php/At-Tarbiyat/article/download/315/227
- [26] A. Afwan Yazid, "Existence of Islamic education in the era of society revolution 5.0," *AMCA J. Relig. Soc.*, vol. 1, no. 1, pp. 13–15, 2021, doi: 10.51773/ajrs.v1i1.34.
- [27] B. Q. Ayuni, S. R. Umaria, and A. Putri, "Cybercounseling Sebagai Inovasi Konselor Menghadapi Tantangan Disrupsi Pada Era Society 5.0," *J. Bimbing. Dan Konseling Ar-Rahman*, vol. 7, no. 2, p. 100, 2021, doi: 10.31602/jbkr.v7i2.5842.
- [28] M. K. Umam, "Dinamisasi Manajemen Mutu Persfektif Pendidikan Islam," *J. Al-Hikmah*, vol. 8, no. 2, pp. 61–74, 2020.
- [29] M. Ilyasin, "Epistemologi Pendidikan Islam Monokotomik: Menakar Manajemen Pendidikan Paripurna Berbasis Rasionalistik- Wahyuistik," *At-Turas*, vol. 3, no. 1, pp. 71–87, 2016.
- [30] A. Hadiapurwa, P. Riani, M. F. Yulianti, and E. K. Yuningsih, "Implementasi Merdeka Belajar untuk Membekali Kompetensi Generasi Muda dalam Menghadapi Era Society 5.0," *Al-Mudarris (Jurnal Ilm. Pendidik. Islam.*, vol. 4, no. 1, pp. 115–129, 2021, doi: 10.23971/mdr.v4i1.3140.
- [31] D. Sirojudin and H. Ashoumi, "Aksiologi ilmu pengetahuan manajemen pendidikan islam," *Aladaroh*, vol. 4, no. September, pp. 182–195, 2020.
- [32] A. Ridho, K. E. Wardhana, A. S. Yuliana, I. N. Qolby, and Z. Zalwana, "Implementasi Pendidikan Multikutural Berbasis Teknologi Dalam Menghadapi Era Society 5.0," *Educ. J. Pendidikan*,



Vol. 3 No. 2 Januari 2024 P-ISSN: 2808-036X | E-ISSN: 2808-0181 Journal of Smart System (JSS)

- Pengajaran, dan Pembelajaran, vol. 7, no. 3, pp. 195–213, 2022, doi: 10.21462/educasia.v7i3.131.
- [33] I. K. Khaira, E. Susilawati, and R. Renaldi, "Implementasi Rancangan Pembelajaran Berbasis Tpack Sebagai Integrasi Pembelajaran Di Era Society 5.0 Untuk Meningkatkan Hasil Belajar Mata Kuliah Ekonomi Kesehatan," *J. Teknol. Pendidik.*, vol. 14, no. 2, p. 111, 2021, doi: 10.24114/jtp.v14i2.28336.
- [34] R. Utami, "Integrasi Kurikulum di Indonesia dalam Menghadapi Era Society 5.0," *J. FTIK*, vol. 1, no. 21, pp. 213–218, 2019.
- [35] F. H. Bahtiyar, Mufliha, N. Ainiy, I. Ngarifah, N. Muflidah, and R. Taufiqurrochman, "Manhaj Ta'līm al-Lughah al-'Arabīyah 'alá Asās takayyuf santri fī 'aṣr al-Mujtama' 5.0 :al-Mafhūm wa-al-āṣār," *Al-Tadris J. Pendidik. Bhs. Arab*, vol. 10, no. 2, pp. 304–330, 2022.
- [36] P. M. A. Castellanos, A. Queiruga-Dios, A. H. Encinas, and L. C. Acosta, "Environmental education in environmental engineering: Analysis of the situation in Colombia and Latin America," *Sustain.*, vol. 12, no. 18, pp. 1–14, 2020, doi: 10.3390/su12187239.
- [37] A. Gunawardana, F. R. Arooz, and ..., "Critical analysis of lecturer's perception on integrating concepts of sustainability in university curricular," ... Sci. Educ. ..., vol. 1, no. 3, pp. 109–121, 2020, [Online]. Available: https://cahaya-ic.com/index.php/ISEJ/article/view/105
- [38] M. Uyun, "Islamic Education System in Welcoming the Era of Society 5.0," *Islawa J. Pendidik. Islam*, vol. 7, no. 2, pp. 221–233, 2023, doi: 10.24269/ijpi.v7i2.6071.