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Faculty Perspectives on the Role of Interdisciplinary Education in Enhancing Student Career Preparedness in the UAE

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Abstract

Contemporary **job** market requires graduates to have comprehensive interdisciplinary knowledge and skills **in order** to be able to apply different approaches to solving problems in the modern workplace. Interdisciplinary education is believed to have an impact **on** preparing graduates to view things from different perspectives and apply higher-order thinking and analytical skills in a current and futuristic work environment. The purpose of this study is to explore faculty perspectives on the impact of interdisciplinary education on preparing students for future careers. The study was conducted using a qualitative case study of a federal university in the United Arab Emirates. The paradigmatic position was interpretive. Thirteen faculty members who are currently teaching interdisciplinary courses were purposely selected to take part in semi-structured interviews. It was found that interdisciplinary education provided various work-related graduate attributes and skills that prepared them for the evolving work environment. The study concludes that interdisciplinary education plays an indispensable role in getting graduates ready for work and is also influential in their selection of career choices.

Keywords: Interdisciplinary education; Problem solving; Analytical thinking; Perspectives

Introduction

The United Arab Emirates (UAE) is one of the countries at the forefront of promoting interdisciplinary education in higher education. The approach is credited with producing graduates who can think critically and solve problems using multiple perspectives. This aligns with the fundamentals of Science, Technology, Engineering, Art and Mathematics (STEAM), which the country prioritizes in order to produce graduates who can drive the global economy effectively (Elsayary, 2018).

Al Murshidi (2019) postulates that the possibilities of implementing STEAM in the UAE far outweigh the challenges. The possibilities are endless, as they allow graduates from interdisciplinary education systems to acquire all 21st-century skills and become work-ready because of the practical problem-solving learning experiences that they get. Interdisciplinary learning promotes the development of transferable skills across domains and enhances graduates' ability to adapt to evolving job market demands.

In recent years, a growing body of literature has reinforced the importance of integrating academic training with career preparedness in higher education. Mohebi and David (2024) revealed that students' career decisions in the UAE are significantly influenced by parental expectations, educational institutions, and socio-economic factors, indicating the need for more adaptable and skills-oriented curricula. Tannous et al. (2024), in their study of undergraduate health students, found that early exposure to career influencers and positive university experiences enhance students' professional identity and resilience—two attributes essential for career success. Similarly, Lai et al. (2025) emphasized the importance of using data-driven learning analytics to bridge the gap between students' career aspirations and the skills taught in academic programs, urging universities to provide more targeted career development support.

From a global perspective, Thomas, John, and Thomas (2024) explored the career decision-making processes of Indian students and identified key influencing factors such as career clarity, personal growth, and recognition. Their findings call attention to the contextual and psychosocial dimensions of student development, which can be supported through interdisciplinary, student-centered approaches in higher education.

Collectively, these studies suggest that interdisciplinary education is not only aligned with the UAE's national priorities but is also a globally relevant model for equipping students with the competencies, adaptability, and awareness needed for long-term professional success. It allows for career exploration, skill integration, and real-world application—qualities that are increasingly valued in modern work environments.

The purpose of this study is to explore faculty perspectives on the impact of interdisciplinary education on preparing students for future careers in the UAE. The study was guided by one critical research question: How does interdisciplinary education enhance students' preparedness for the evolving demands of the modern workforce?

To answer that research question, this paper begins with this first section of the introduction. This is followed by a literature review about interdisciplinary education and a theoretical framework. Methodology, results, and discussion are presented thereafter. The paper ends with a succinct conclusion and directions for future research.

Impact of Interdisciplinary Education

In order to have a comprehensive understanding of the impact of interdisciplinary education, there is a need to unpack its definition first. Trilling and Fadel (2009) gave a good illustration of what is not interdisciplinary education. They said, In times past, education was primarily focused on learning the important content for each subject area, then assessing this content knowledge with quizzes and tests at the end of a lesson. So in science, for instance, a student might first study the periodic table of elements, then take a test on what H, Na, Cl, Fe (hydrogen, sodium, chlorine, and iron) and other element symbols stand for, how they are arranged in the table, and other related information (Trilling & Fadel, 2009 p. 45).

That type of education described is discipline-specific and was done in the past in order to get students to acquire subject knowledge **for which** they will be tested. This is not different from the type of education happening now, where there may not be examinations and students have to show an understanding of different approaches, methods, and perspectives to solve a problem. This brings interdisciplinary education.

According to the *Oxford Handbook of Interdisciplinarity*, **interdisciplinary** education focuses on the integration of different perspectives, thoughts, and methods from various disciplines (Morales et al., 2021). Similarly, Chandramohan and Fallows (2009) conceptualized interdisciplinary education as a pedagogical approach that seeks to integrate content and methodologies from multiple perspectives and disciplines. The approach is different from **discipline-specific** education, where students are limited to viewing things from the specific field of study they will be focusing on.

Various scholars have explored ways in which interdisciplinary education has impacted students' learning in different contexts. Oudenampsen, Van De Pol, Blijlevens, and Das (2023) explored the impact of interdisciplinary education in healthcare and reported that the

program enhanced students' learning experiences as they diversified their knowledge and developed critical thinking skills. Students had chances to work with other students across different fields, which fostered collaboration, **which** enhanced their abilities to solve challenging problems. Similarly, Yang, Lo, Li, and Chao (2024) contend that interdisciplinary education in the context of nursing education plays an indispensable role, as it improves students' application of knowledge and enhances their problem-solving skills in a conducive collaborative environment.

Gardner, Jansujwicz, Hutchins, Cline, and Levesque (2014) concur that **creating a** collaborative environment is fundamental to the success of students' learning in an interdisciplinary education system. Students will be compelled to exchange ideas and critique each other's thoughts as they come from different perspectives. This fosters teamwork and promotes critical thinking skills, as students will be applying higher-order thinking skills to solve educational problems presented before them (Meda & Albukhari, 2023).

This challenges tertiary institutions to relook at revising curricula to make it interdisciplinary, as that gives students skills that they need to function in the modern work environment. Instructional designers are expected to review institutional curricula to integrate programs to promote cross-pollination of information across disciplines and foster interdisciplinary education (Ashby & Exter, 2019). This will prepare students for challenges they are likely to face in workplaces. Such challenges will not be confined to a specific discipline. All 21st-century skills are addressed in an interdisciplinary curriculum. ElSayary (2018) postulates that a **good 21st-century** curriculum is transdisciplinary in nature, as that is compatible with STEAM. This type of education is commended for promoting critical thinkers with advanced technological and communication skills (ElSayary, Meda, Karaki & Mohebi, 2024).

Theoretical Framework

The 21st-century skills framework is going to be used as a theoretical framework that guides **the** data analysis of this study. According to Geisinger (2016), 21st-century skills are a set of competencies **that** are outside traditional subject knowledge. The competencies are essential for working in a diverse and **ever-changing** workplace today. According to Trilling and Fadel (2009), 21st-century skills include critical thinking, creativity, collaboration, and communication (Learning Skills); information, media, and technology (Literacy Skills); **and** flexibility, leadership, initiative, productivity, and social skills (Life Skills).

The three broad categories of the 21st-century skills (Learning Skills; Literacy Skills; and Life Skills) will be used as a framework for this study. 21st-century skills were selected as a framework for guiding this study because they are consistent with an interdisciplinary education approach. Trilling and Fadel (2009) **state** that the core subjects and interdisciplinary 21st-century themes are inseparable. Students who study interdisciplinary education are expected to graduate with skills such as critical thinking, creativity, collaboration, and communication, which are also known as the 4Cs of the 21st century. In addition to that, students are expected to acquire soft skills which fall in the broad categories of Literacy Skills and Life Skills.

The 21st-century framework provides a comprehensive analytical framework for this study, as it provides a holistic developmental plan for graduates. This is consistent with interdisciplinary education, which seeks to diversify students' skills to make them relevant to **the** real-world working environment.

Methods

The study was conducted using a qualitative case study within an interpretive paradigm. A qualitative approach was selected because the sample was small and the researcher wanted to collect rich textual data. Creswell (2012) postulates that qualitative research is suitable for a study that seeks to collect textual data through interaction with a small group of participants. An interpretive paradigm was selected as it is compatible with a qualitative approach. Both **the** qualitative approach and **the** interpretive paradigm complement each other in helping to understand and interpret data using the researcher's subjective views (Lapan, Quartaroli & Riemer, 2012). Creswell and Creswell (2017) agree that a combination of qualitative and interpretive **approaches** is suitable for obtaining a sound small-scale study that mainly focuses on participants' views and perspectives about a phenomenon. The study was conducted as a case study of a federal university in the UAE. A case study design was selected as the researcher wanted to make an in-depth analysis of faculty members' perspectives on interdisciplinary education. According to Yin (2018), case studies are ideal for research that seeks to obtain intensive data about a particular subject in a specific context.

Thirteen faculty members who are currently teaching interdisciplinary courses were purposely selected to participate in the study. Purposive sampling was selected as it enabled the researcher to select faculty members who had the experience of teaching interdisciplinary courses so that they **could** share their perspectives on the impact that it has on students' readiness for work. Some faculty members were new to interdisciplinary education; they had to be left out of the study using the purposive sampling technique. This

is consistent with Cohen, Manion, and Morrison (2017), who state that purposive sampling is ideal to use in a qualitative study as it enables the researcher to deliberately target **information-rich** participants who can contribute meaningfully to the study because of their knowledge and experience.

Data was collected using semi-structured interviews. Interviews were selected as they enabled participants to freely express their views (Merriam & Tisdell, 2015) about the impact that **the** interdisciplinary approach has on preparing graduates for work. The data collection tool was also selected as it enabled the researcher to ask follow-up questions in order to have a comprehensive understanding of what the participants meant. This is unlike other data collection tools like a survey, where participants may write information without elaborating and clarifying what they mean about something in particular.

Data was analyzed using content analysis. The researcher transcribed the data, organized it, and generated some codes. Many codes came up and they were collapsed into three main themes, namely: i) Analytical problem solving and critical thinking skills; ii) Enhancing students' readiness for the evolving demands of work; and iii) Influence of interdisciplinary education on students' career choices. Each theme was presented in-depth, supported by participants' direct quotes. The 21st-century framework was used to guide the discussion section.

Ethical considerations were observed by first and foremost obtaining ethical clearance from the university. **The** purpose of the study was explained to all participants and they were informed that participation was voluntary. Participants were informed that they had **the** freedom to withdraw from the study at **any point**. Each participant signed a consent form prior to taking part in an interview. Participants' confidentiality and integrity were maintained throughout the study. No real names were used.

Results

This section presents the results of this study. Results are categorized according to three main themes that emerged from the coded data: i) Analytical problem solving and critical thinking skills; ii) Enhancing students' readiness for the evolving demands of work, and iii) Influence of interdisciplinary education on students' career choices. The three themes are presented in detail along with figures from quantitative data and direct quotes from qualitative data.

These emergent themes are directly aligned with the 21st-century skills framework that underpins this study, reinforcing the relevance of interdisciplinary education to core competencies such as critical thinking, flexibility, collaboration, and career adaptability.

Analytical Problem Solving and Critical Thinking Skills

All faculty members who participated in this study unanimously argue that interdisciplinary education enables students to use multiple perspectives to apply analytical problem solving and critical thinking skills. Students apply knowledge and skills which they learn from different disciplines to solve current educational problems presented to them at the university. A participant confirmed this saying,

Interdisciplinary education approaches enhance students' learning by exposing them to different perspectives and methods of problem-solving that go beyond single-discipline boundaries. This exposure fosters critical thinking, creativity, and the ability to synthesize diverse types of knowledge. Compared to traditional approaches, which often focus deeply but narrowly on specific fields, interdisciplinary education encourages students to connect and apply ideas across various disciplines, promoting a more holistic understanding of complex issues and problem-solving skills.

Another participant echoes the same sentiment about interdisciplinary education preparing students to become critical thinkers who can draw solutions to a problem using different perspectives. The participant said,

Interdisciplinary education helps with their (students) critical thinking. It helps with their problem solving. So, when they go to work, they can handle stress better. It helps them to see things from a distinct perspective. Because you know, when we join the workforce, we are working with different people from diverse backgrounds, different of everything, so it helps them deal with that. It also helps with teamwork, and it helps with being able to find practical solutions to real problems.

These observations reflect the belief that interdisciplinary learning empowers students not just with content knowledge, but with metacognitive skills that foster innovation and decision-making across contexts.

Interdisciplinary education was credited for preparing students to solve future problems and be ready to succeed in new workforces which have a set of problems which are not known. The approach to education equips graduates with different knowledge domains and skills which can enable them to function successfully in any future working environment which is evolving and hard to predict. A participant said, “*if you are trained in the interdisciplinary approach, then you can solve future problems better than someone who was trained in a discipline specific education. It is better that we equip students with different perspectives than conditioning them to one.*”

This foresight demonstrates how interdisciplinary learning instils in students the ability to anticipate and approach unforeseen challenges, a cornerstone of employability in dynamic sectors.

Even organizations where graduates go to work today discourage discipline specific education as it is a hindrance to problem solving abilities. A participant supports that point saying,

The reason we are doing this (interdisciplinary education) specially at the College of Interdisciplinary Studies, is that a lot of feedback came from workplaces or companies after our students graduated and this feedback focused on the idea that our students are not ready for the workplace. Through discipline specific education our students learnt skills which employers did not need in the current workplace. Employers need graduates who can work in teams and can solve problems across different disciplines. This is why the idea of interdisciplinarity came along at our university, and that is why we focus on it now.

This institutional shift underscores the growing demand for cross-functional thinkers and validates the strategic importance of interdisciplinary education in curriculum planning.

Subjecting students to learning within a specific discipline was heavily criticized by faculty members because it does not broaden graduates' problem solving and analytical skills. They will have a shallow approach to problem solving and that will result in not adapting to the modern workforce which requires all graduates to have a comprehensive understanding of approaches from multiple perspectives. This reinforces the value of integrated knowledge systems in enabling learners to navigate real-world complexity. One participant reiterates the necessity of interdisciplinary education in the modern workplace saying:

Interdisciplinary approaches equip students with a skill set that is increasingly valuable in a globalized and rapidly changing job market. Employers often seek candidates who can think critically, solve problems, collaborate across teams with diverse specializations, and innovate by applying knowledge from multiple domains. Such approaches also nurture adaptability and lifelong learning skills which are crucial as the nature of work continues to evolve with technological advancements.

Such views support the alignment between interdisciplinary education and the Life Skills category of the 21st-century framework, which includes adaptability, initiative, and lifelong learning.

Similarly, another participant said,

Interdisciplinary education helps the students get a broader perspective about different topics, because learning does not happen in isolation, so students need to have different lenses to look at the same problem from. So, it helps them become more open minded and better critical thinkers and problem solvers.

Through interdisciplinary education, graduates develop effective problem solving and critical thinking skills. That subsequently enhances their readiness for the evolving demands of the job market.

Collectively, these responses indicate a shared belief that interdisciplinary education is essential for developing cognitively flexible graduates, capable of thriving in multidisciplinary teams and solving multifaceted problems.

Enhancing Students' Readiness for the Evolving Demands of Work

All participants reiterate a view that their students are ready to face ever changing demands of the workforce because of interdisciplinary education they attained. This theme resonates with the combined domains of Learning and Life Skills, indicating that readiness is not confined to academic achievement but includes the ability to continuously adapt, collaborate, and learn. One participant said, *"interdisciplinary education enhanced students' readiness for work as it trained them not just in specific technical skills, but also on how to learn and adapt, which is vital as new fields emerge and existing roles evolve with technology."* Another participant echoes the same sentiment about readiness of graduates to work saying:

When you think about the nature of our world nowadays, we see that people need to have a variety of skills to be able to deal with the demands of the workforce and the workplace now, so having the interdisciplinary knowledge enables our students to deal with the requirements of the workplace in today's workplace more effectively.

One of the main points which was emphasized by participants about helping to get students ready for the evolving demands of work is the practical component of interdisciplinary education at the university. Students do not just learn theory, but also practical work to help them get ready for work. A participant confirmed this saying,

The courses of interdisciplinary fields are more towards expanding the horizon of students. The question that they ask is more into practical work than it is formula basis, especially in Math. One of the things that I noticed in the interdisciplinary Math courses, most of the questions are in real-life problems and really it motivates students to think and come up with practical solutions.

The emphasis on application-driven learning suggests a strong foundation in experiential education that enhances employability.

With the effort to enhance students' readiness for work, the university has partnered with some organizations. Purpose of partnering with organizations is so that students do not only learn theoretical knowledge, but they do hands-on activities with real problems faced by companies. One notable partnership which was reiterated by participants is called partner challenge and it was credited for enabling students to have experience of hands-on approach to real problems. A participant explained how the partner challenge helped students get practical experience which made them ready for work. She said,

Interdisciplinary is hands-on. We have something that is called the partner challenge where students will be partnered with companies from their first semester at the university. Students work with those companies to apply the learning outcomes that they have under courses. They may take a problem that the company is facing and then try to see how they can solve it step by step based on the process that they learn in class. To do that, students learn to work together. They work as a team and that is important for the workplace as it helps improve communication skills, conflict resolution and time management.

This structured collaboration between academia and industry exemplifies best practices in aligning higher education with labour market needs.

Two other faculty members also spoke highly about the partner challenge as something that plays a big role in enhancing students' readiness for work. The partner challenge initiative, as discussed by several participants, also illustrates an effective pedagogical model that bridges theory with industry-relevant practice, reinforcing real-world readiness.

So, imagine the advantage our students are having at such an early age, even when they are 17 or 18 and their first term, they are starting to work on those skills and are starting to learn those skills.

There is a practical part in the program where students take part in the partner challenge. Students experience what it is like to work in a company and by having an interdisciplinary background, they can see things from different lenses. Students practice active learning where they find real solutions to problems by themselves. They are part of the process, they must have responsibility for their own learning, so they are learning how to manage themselves, and then when they go to work, they will be ready.

Another participant who commented about the partner challenge said,

I think the interdisciplinary education offered together with the partner challenge program exposes students to diverse perspectives and supports their understanding of how to approach problems from multiple angles. Students collaborate, communicate in teams, and develop a broad set of skills over the course of the program that equips them with a flexible mindset to thrive in interdisciplinary workplaces and cope in challenging environments with rapid innovation.

The hands-on approach which is integrated in the interdisciplinary education is praised for helping students to get ready for work in an environment where changes are inevitable. One participant supports that saying, “*I think interdisciplinary studies is one of the best ways in which you can prepare students for these unknown careers that are evolving and are coming up.*”

These insights further validate that interdisciplinary education, when coupled with experiential components, supports the holistic development of workplace competencies identified in global employability frameworks.

Influence of Interdisciplinary Education on Students' Career Choices

Interdisciplinary education at the university under study was applauded for helping influence students make informed career choices. This highlights the transformative potential of interdisciplinary exposure in expanding students' career awareness and allowing them to align their interests with practical, evolving career paths. The program enabled students to have opportunities to study bits and pieces of different subjects and by the end of the semester or a year, they were in a better position to choose the correct career path that they wanted to follow. A participant said,

At this university, interdisciplinary learning experiences that tie academic studies to real-life applications profoundly influence students' career choices and trajectories. For instance, a student exposed to courses that integrate technology, business, and ethics might be inspired to pursue a career in corporate social responsibility within tech companies, seeing a way to apply their diverse skills and interests in a meaningful career.

The accounts suggest that interdisciplinary education also enhances self-awareness and career self-efficacy, both critical factors in career decision-making.

Another participant echoes the same sentiment about interdisciplinary education broadening career choices of graduates. She said,

I give you an example of the computational system because my major is mathematics and statistics. What students are learning at this university in Interdisciplinary College under computational major, they learn artificial intelligence, which they can use to open the gate of work or jobs. In the artificial intelligence field, they learn digital programming under this computational department. In computational studies, they do artificial intelligence, they do data, they do programming, data programming. So, they can go in the computer science field, they can go in the digital field, they can go in the mathematics field and they can go into this statistics field in the government sector to do diverse types of statistics, to do research and many more. This interdisciplinary education opens many gates or jobs to this new generation.

Another participant also commented interdisciplinary education as important for helping students with career choices. She said,

In interdisciplinary education, there is a little bit of psychology, biology and students learn about critical thinking. They learn some things about governments, sustainability, the environment, and society. They also learn statistics and algorithmic thinking. Because they get so much from everything, eventually you feel like towards the end of their first year they know what they want.

When students graduate from high school, sometimes they will not have a clear idea about different courses offered at the university and what career pathways they lead to. Exposing students to interdisciplinary education at the university becomes indispensable as that helps give students experience of different courses so that they make informed decisions about selecting a major for their career. A participant confirmed that students joining the university from high school find interdisciplinary education more beneficial. Participant said,

I would like to start from high school. When the students reach to their high-level classes Grades 10, 11 or 12 or higher in their school, they are very much confused as to which career they must pursue. Either they must go for the medicine study or for the engineering studies. And you know sometimes they want to go in some other field their parents and siblings and other family members want them to. So, interdisciplinary education is a broad field, broad ground for students to select career pathways they find fulfilling.

This demonstrates the importance of broad-based curricula in the early stages of university education for facilitating exploration and informed specialization.

Another participant supported that saying, “students will be more versatile as they will be able to explore their own interests and choose what career they think is more suitable and befitting in terms of their personality and then they can follow up on that.” Another participant supported the importance of interdisciplinary education as pivotal to student career choices saying,

I think in the current day that we live in, our life has gotten so much more interdisciplinary. It is very unlikely that you are going to be able to work in a field that is solely devoted to your field and does not involve anything else. I have always said everyone could use a bit of psychology, social studies and coding. All these things are so important, and I feel like learning in this kind of interdisciplinary environment, being exposed to all these other subjects is a huge asset to students as it helps with their career choices. They have an opportunity to interact with students and faculty members from different disciplines. That inspires career choices of students.

Through interdisciplinary education, students will have more job opportunities in different fields. A participant supported this saying, “students learn Art, Mathematics, Computers and Digital education. All these subjects are very essential for surviving that young generation successfully in this era. Graduates will not only get more job scope in their life, but also live. Successful personal lives.”

In sum, the data supports the notion that interdisciplinary learning not only equips students with workplace skills, but also plays a pivotal role in career orientation, confidence, and long-term satisfaction.

Discussion

This section presents a discussion of this study. The discussion is guided by the three key components of the 21st century, namely: **Learning Skills, Literacy Skills, and Life Skills.**

Learning Skills (The Four Cs)

Findings in this study correspond with all the four Cs—**Critical Thinking, Creativity, Collaboration, and Communication**—of the twenty-first century. Interdisciplinary education **ruptures** across all fields and **develops** graduates who can apply critical cognitive skills to solve abstract problems (Yang et al., 2024; **Dong, Li, & Chang, 2023**), work with others in small or large groups, and use different emerging technologies to create something that helps the company. ElSayary et al. (2024) concur that interdisciplinary education plays a fundamental role in preparing graduates who are inquisitive, can communicate, and collaborate effectively to achieve a common goal. Such skills (the four

Cs) are essential to complement employees' subject knowledge, regardless of what discipline their majors are. Trilling and Fadel (2009) contend that these four skills shape a 21st-century work environment, and they must be acquired by all students prior to graduation, as they will be needed to solve problems in workplaces across all disciplines.

Affording students an opportunity to study interdisciplinary education sets them apart from others who may have studied **discipline-specific** education, where they hardly integrate diverse perspectives, thoughts, and methods **to solve a problem** (Morales et al., 2021). Interdisciplinary education indeed enhances students' readiness for work, as it provides opportunities to collaborate, think critically, and be creative. This corresponds with the literature, where different scholars unanimously concur that interdisciplinary approaches improve students' skills.

Literacy Skills (IMT)

Graduates can collaborate in different contexts, in real-time or asynchronously, using different technologies, media, and information systems. This corresponds with ElSayary (2018), who states that the use of various technologies, media, and information systems is inevitable for a student who is studying STEAM subjects. Students will need to have experience using—not necessarily advanced technology—but **at least** the basics, so that they can effectively participate in collaborative environments.

Life Skills (FLIPS)

Life skills are conceptualized as soft skills, which are irreplaceable in a modern workplace (Trilling & Fadel, 2009). This is consistent with the findings of this study, where participants reiterate that soft life skills—such as flexibility, communication, and initiative—are nurtured through interdisciplinary education. This is why instructional designers foreground interdisciplinary education in today's curriculum (Ashby & Exter, 2019). Kivunja states that life skills such as flexibility, adaptability, and leadership are essential for learning and that every graduate ought to possess them in order to succeed in a 21st-century work environment. Technologies will keep changing, and **this requires** graduates to have adaptability and flexibility in order to remain productive in a contemporary workplace. This reality challenges the role of higher education to shift from **mono-disciplinary** education to **multidisciplinary** education, so that graduates acquire the skills needed to survive in an evolving job market (Hassock & Hill, 2022).

Conclusion

The purpose of this study was to explore faculty perspectives on the impact of interdisciplinary education on preparing students for future careers. Findings revealed that faculty members overwhelmingly viewed interdisciplinary education as instrumental in

equipping students with key 21st-century competencies, including critical thinking, collaboration, communication, and adaptability. It was found that interdisciplinary education plays a significant role in preparing students for the current work environment which is evolving and unpredictable. Faculty emphasized that students developed analytical problem-solving skills through exposure to diverse disciplines, and this broadened perspective enabled them to engage with complex, real-world challenges. The fact that interdisciplinary education enables students to diversify their thinking, apply higher order thinking skills to solve problems, and look at things from multiple perspectives makes the approach suitable for preparing graduates for unimaginable work-related problems and changes which are inevitable. These outcomes align with the 21st-century skills framework used in this study, particularly within the domains of Learning Skills (4Cs) and Life Skills (FLIPS), where flexibility, initiative, and social skills are key to thriving in dynamic professional settings. This study concludes that interdisciplinary education not only prepares graduates for work, but is also consistent with the fundamental principles of STEAM and the demands of the modern labour market. It provides a platform for continuous learning, innovation, and integration of knowledge—making graduates more resilient and responsive to shifting industry trends.

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Consent to Publish Declaration

Consent to Publish declaration: not applicable.

Ethics and Consent to Participate

The protocol for this study was approved by the Zayed University Research Ethics Committee (Ethics Application Number: ZU24_057_F) on 8th May 2024 in accordance with the institutional guidelines and regulations governing research involving human participants. The research was conducted following the guidelines outlined by the ethics committee. Informed consent was secured from all participants prior to data collection. The ethical approval is valid until 8th May 2026.

Competing Interests Declaration

The authors declare that they have no competing interests.

Data Availability Declaration

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request.

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