AL-QANTARA
ISSN: 1988-2955
0211-3589

Volume 27, Issue 1, 2024
Received: April 2024
Accepted: May 2024

EXPLORING GROWTH AND TRANSFORMATION: A DEEPER DIVE INTO GENERAL EDUCATION CERTIFICATE REFLECTION PAPERS

Sundus Shaikh[1]

Qatar University, Doha

ABSTRACT

This paper delves into the profound journey of growth and transformation reflected in General Education Certificate (GEC) reflection papers. With the aim of uncovering hidden insights and narratives, a comprehensive analysis was conducted to explore the impact of GEC experiences on participants. By examining these reflections, the study sheds light on the transformative power of general education and its ability to shape individuals' personal and intellectual development. The findings reveal the multifaceted nature of these papers, showcasing the diverse range of experiences, challenges, and lessons learned by participants. Through a deeper dive into the GEC reflection papers, this research provides valuable insights into the transformative potential of general education and its profound effects on individuals' growth and self-discovery.

Keywords: *Professional Development, Critical Reflection, Transformative Learning, Teacher Education.*

INTRODUCTION

General Education Certificate (GEC) programs have long been recognized as instrumental in providing a well-rounded education, offering students a broad range of knowledge and skills beyond their chosen fields of study.

As part of these programs, participants are often required to submit reflection papers, providing an opportunity to contemplate and articulate their experiences, challenges, and personal growth throughout the GEC journey. These reflection papers serve as a window into the transformative power of general education, offering unique insights into the participants' intellectual and personal development.

The purpose of this paper is to embark on a deeper exploration of the growth and transformation reflected in GEC reflection papers. By conducting a comprehensive analysis of these papers, we aim to uncover the hidden narratives and unveil the profound impact of general education on the participants' journeys. Through this investigation, we seek to shed light on the multifaceted nature of GEC experiences and gain a deeper understanding of how these programs contribute to individuals' personal and intellectual growth.

The significance of this study lies in its potential to illuminate the transformative potential of general education. While GEC programs are often viewed as a requirement to fulfil academic standards, their true value lies in the transformative experiences they offer. By examining the reflection papers, we can go beyond the surface and uncover the rich tapestry of personal growth and self-discovery woven by the participants.

Throughout this paper, we will delve into the reflections shared by GEC participants, carefully analyzing their narratives, themes, and underlying messages. By doing so, we aim to extract valuable insights into the profound impact of general education on participants' perspectives, knowledge acquisition, and personal development. Ultimately, this research endeavours to contribute to the ongoing dialogue surrounding the importance and efficacy of general education programs in fostering holistic growth and transformation.

In the following sections, we will outline the methodology employed for the analysis, discuss the key findings, and provide an interpretation of the implications for both participants and educational institutions. By offering a comprehensive examination of GEC reflection papers, this study seeks to contribute to a deeper understanding of the transformative power of general education and its significance in shaping individuals' journeys of growth and self-discovery.

Thematic Analysis

Theme 1: General Education

Sub Theme 1: Difference of General Education from Major Courses

According to [1], the program of education which is based on state standards to enhance student-centred education is termed general education which differs from major courses in terms of new skills and

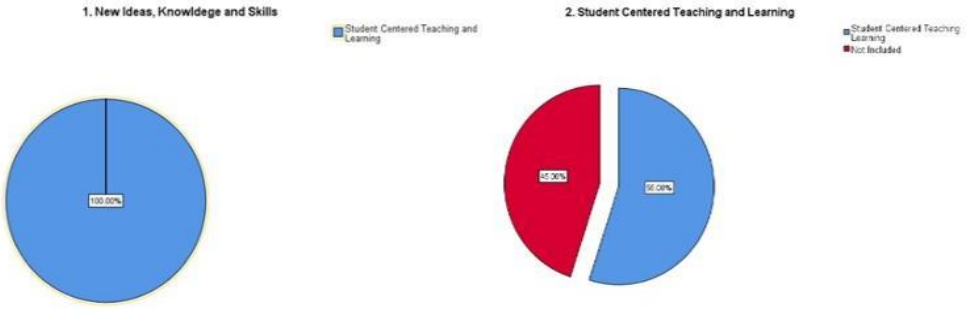
knowledge. In addition, general education promotes learning to prepare individuals for career development and there are many skills that individuals learn from general education which are different from core curriculum courses [2]. As stated by [3], general education allows a graduate to gain a well- rounded education to serve the chosen field of study. Similarly, the reflective responses from various also explained the importance of general education including the fact that skills and knowledge in students are transferrable in the general courses. One of the responses is stated below:

"The knowledge and skills learned in the general courses are taught to be retained with students in the long run and transferable to other (possibly unexpected) contexts. This means students are able to accurately recall and apply the skills learned in many different areas. The skills learned in major courses, on the other hand, are narrowly focused and concentrate on specific areas of the discipline."

Similarly, another participant mentioned that:

"The core curriculum courses as general education aim to prepare students to make positive changes and contribution, and to be socially responsible, critical thinkers, civically engaged as well as build their leadership skills through the general education courses."

Figure 1: Key Differences Between General Education from Major Courses.



It can be analysed from the above statements that general education is about the delivery of skills that are taught to the students to be retained for a long time as compared to major courses. However, it requires an aim of delivery of student-centred education through courses in general education. As mentioned by [2], general education is valuable to the career development of an individual which is about promoting improved skills of critical thinking such that an individual becomes able to utilize the ability of critical thinking to solve various problems and improve society. A similar explanation was provided by a participant who stated that:

"General Education faculty can be driven to innovation related to active and applied forms of problem- centred inquiry-based learning and the exploration of a significant problem defined by each student to understand why they're being asked to do with the curriculum. They all focused on what the employers need students to acquire by their graduation."

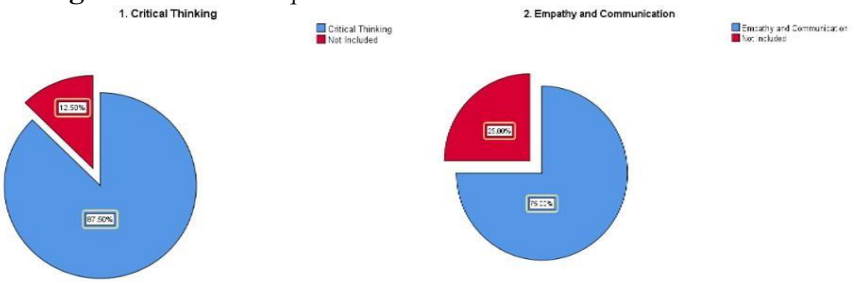
The quantitative results analyzed via SPSS as shown in figure 1 below, depicts that 100% ofparticipants agreed with the fact that new ideas, knowledge and skills are the key differences of general education from major courses. On the other hand, 55% of participants included student-centred teaching and learning in their reflective reports as an important element of general education.

Sub Theme 2: Skills Required to Teach Courses of General Education

As analyzed by [4], general education is categorized based on the set of skills that are the key requirements for the delivery of a broad base of knowledge to ensure graduates become able to earn based on their degrees. Therefore, in this aspect, the two skills that are considered essential for teaching courses in general education include communication skills and critical thinking skills. Moreover, in the research by [5], it was highlighted that, in today's business environment, one of the most important skills that are essential in enhancing the ability to deliver general education is communication which is beneficial in courses of professional writing and delivering presentations. Similar traits were observed in the reflection reports of many participants as the majority agreed communications skills play a vital role in delivering general education. A few of the statements are mentioned below:

AL-QANTARA
ISSN: 1988-2955
0211-3589

Figure2: the Skills Required to Teach Courses in General Education.



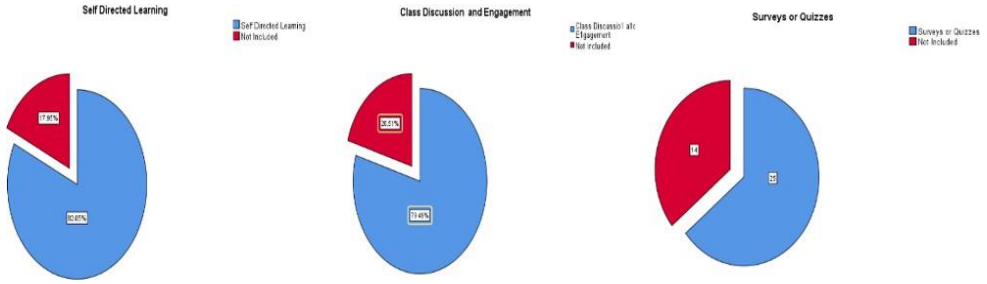
"I also understood that communication skills, ethical judgement, collaborative assignments, undergraduate research and community-based learning projects are the high-impact practices, which need to be implemented in the core curriculum unit that I teach."
Another participant stated that:
"Other skills include the development of written communications through the practice of business correspondence and summary writing tasks. To perform these activities, students need precision and the ability to communicate key information in a concise manner."
The above-mentioned statements present the importance of communication skills in general education. It was highlighted by participants to perform various activities for the core courses of general education as it enhances the ability to communicate in a precise manner. Furthermore, another skill which is effective in delivering general education is critical thinking as stated by [6], critical thinking is essential for presenting a judgement over critical issues and the ability to carefully look into the information available and interpreted from various sources. Additionally, [7] elucidated that to teach and improve the skill of critical thinking is the main purpose of general education. Similarly, out of many responses regarding the importance of critical skills, one is stated below:
"One of the most interesting new ideas I have learnt was about the importance of enhancing the students'
abilities to problem-solve in this new age where innovative and critical thinking are paramount."
From the above statement, it can be studied that critical thinking is a complicated skill which is required to analyze, evaluate, and synthesise useful information. Similarly, the knowledge gained expanding overall understanding of general education is achieved via skill of critical thinking.
Further, based on the quantitative analysis, it has been found that the majority of the teachers had critical thinking as the Skill Required to Teach Courses of General Education The 87.5% of respondents have agreed with the usefulness of this technique as shown in Figure 2. Apart from this, it has also been found that 75% of respondents also agreed with the fact that empathy is also described as one of the effective techniques which are followed by teachers.

Theme 2: Teaching

Sub Theme 1: Techniques learnt by teachers to promote their students' engagement in core curriculum courses.

According to [8], student engagement is when students show up to learn in the classroom demonstrating a positive attitude in enhancing.
students' interest in general education. In addition, there are three types through which engagement of students can be increased which include emotional, behavioural and cognitive engagement. All of these are pertinent to participation in class discussions and interaction with classmates and teachers to deeply think about the subject matter [9]. Similarly, participants also reflected on the impact of class discussion in general education as one of the participants stated:

Figure 3: Techniques learnt by teachers to promote their students' engagement in core curriculum courses.



"My teaching philosophy has been always about engagement and putting the student at the centre to serve them better. In regards to the program being taught online, I'm in favour of doing in-person training due to the limited engagement. In line with this, my philosophy is that learning can be maximized through engagement where everyone's contribution enriches the discussion."

Moreover, in addition to class discussion, self-directed learning is also an important technique used by teachers to enhance student engagement. In the research by [10], it was analysed that in education, self- directed learning in not the latest trends and has been around since inception of cognitive development in education. It is a natural pathway to understand and enhance efficacy in an individual to be mindful when appearing in classroom. It is about leveraging it as an integral part of how to create more meaningful relationships learning from experiences [11], [12]. The educational institutions for the delivery of core courses in general education incorporate self-directed learning which can be diverse in simply discovering new information and actively participating in class activities[13]. Furthermore, from the reflection assessment of various participants, a response mentioned below depicts self-directed learning and its importance as a technique of delivery of education used by teachers [14].

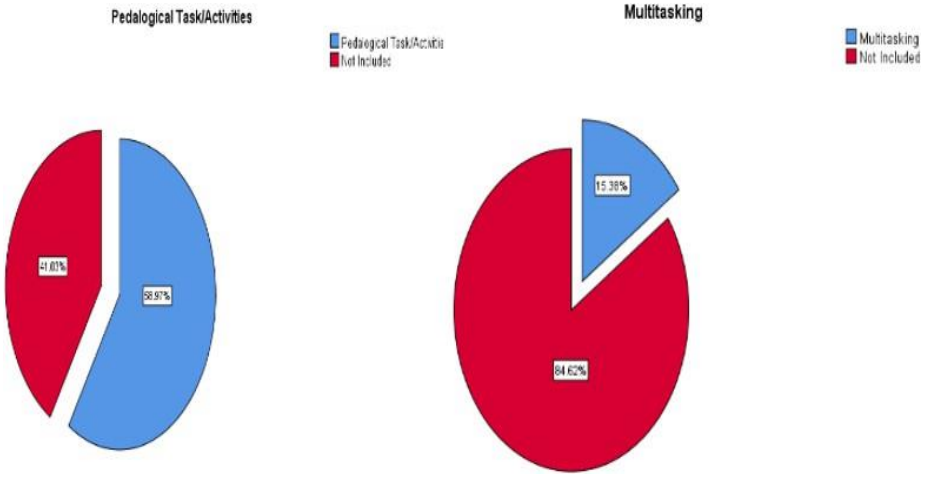
"It is also essential that instructors use different metacognition and self-regulation strategies to transfer students from the dependence culture to the independence culture to become self-directed learners who could succeed in their academic and professional domains of life."

Moreover, in terms of determining techniques learnt by teachers to promote their students' engagement in core curriculum courses, as shown in Figure 3, it has been accessed that the majority of the participants have agreed with the fact that class discussion and engagement is considered as the vital technique used by teachers in promoting students' engagement in the core curriculum. Furthermore, it has also been accessed that self-directed learning is also identified as a technique learnt by teachers to promote their students' engagement in core curriculum courses. Further, among 41 participants, it has also been accessed that the majority of the participants also agreed with the fact that surveys or quizzes also aid in the promotion of student engagement in their core curriculum courses.

Sub Theme 2: New ideas learnt to leverage technology for teaching in GE Classroom

As highlighted in the research by [15], technological integration is an inevitable part of the ever-changing world which is important for every learning mode creating an impact on students to enhance their learning. In addition, the impact of technology is significant on student learning which is considered as an effective way to develop educators and learners promoting student learning. Moreover, as mentioned by [16], one of the ideas that can enhance activities in general education is a pedagogical activity which are expected to be learned to leverage technology in the classroom. It is based on information, innovation and information skills including the five main approaches such as collaborative, constructivist, reflective and integrative learning [17]. Similarly, one of the participants presented the views regarding pedagogical activities as stated below:

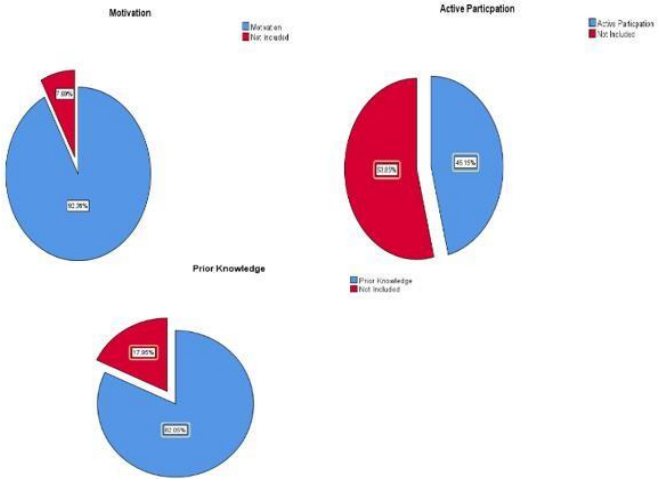
Figure .4: new Ideas Learnt to Leverage Technology For Teaching in GE Classroom.



"It seems highly important for us to infuse the entrepreneurial mindset in the CCP program that we are teaching. This could be implemented through project-based activities where students face problems and had to find the appropriate solutions, class debates to enhance students' strong argumentative skills, reflective readings or research- based activities that enhance skepticism, doubt and creative thinking. These are all great pedagogical tools to infuse the entrepreneurial mindset into the educational system, which would encourage students to initiate ideas, express their own opinions and solve problems."
The above mentioned statement clearly highlights the how essential it is for the teachers to ensure infusion of pedagogical tools in an educational system as it encourages students to solve problems and express their own opinions enhancing teacher's ability to leverage technology in classroom of general education.
The quantitative findings, shown in Figure 4, have asserted that pedagogical Tasks/Activities are one of the new ideas learnt to leverage technology for teaching in GE Classroom. It is due to the reason that the majority of the participants have referred this to as an effective new idea to leverage technology for teaching in GE classrooms. Further, a greater number of respondents i.e. 84.62% agreed with the statement that multi-tasking is described as one of the important ideas for leveraging technology.

Sub Theme 3: Participants' learning to be used in their own teaching

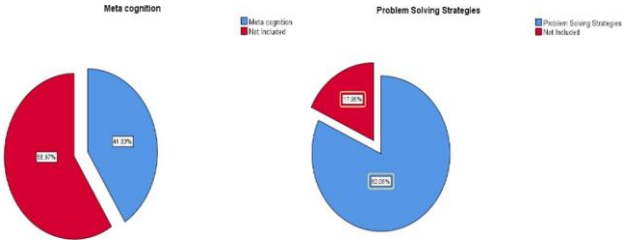
Figure .5: The Elements of Participants' Learning to Be Used In Their Own Teaching.



As stated by [18], the key to enhancing teaching is to get started with increasing student participation and motivation. These are the skills that are used by teachers in the classroom to create a positive environment in class such as building rapport with students by learning their names and asking about their prior knowledge. Moreover, aligning participants' learning with respect to core courses should be aligned with activities of courses that are focused on students' goals [14], [19]. Teachers must communicate with students to deliver regular feedback which is effective in enhancing their progress in class. On the other hand, structuring classroom activities should always incorporate active learning which enhances student motivation. This is pertinent to academic achievement, student engagement, and good classroom behaviour creating a significant impact on students in a learning environment [20]. Similar facts were presented by participants as they represented the importance of

active participation, motivation and prior knowledge as essential elements of participants' learning to be used in their own teaching as illustrated in Figure 5. As stated in a reflective report by a participant:

Figure .6: Ideas Used Immediately for Effective Future Application.



"A new idea that I have achieved as an educator is to teach students about the learning process so that they can actively participate, which involves construction, action and time."

Moreover, another participant mentioned the importance of prior knowledge as a fact which assist teachers in enhancing student learning and participation:

"Every student needs to be aware of her/his own needs and strategies that work well in different situations. The starting point means that students should get an idea of what they are capable of (prior knowledge) and what they need to do to develop their learning, build new knowledge based on previous knowledge and experiences and use the knowledge in different contexts both inside and outside the university and further in working life."

Further, in terms of describing whether Participants' learning is to be used in their own teaching, the respondents did not fully agree with the viewpoint that the active participation of a teacher can be used in their own teaching. However, responses suggested motivation is described as the one of participants' learning skills which is used in their own teaching. Further, 82.05 % of people also suggest that prior knowledge can also be used in their own teaching.

Sub Theme 4: Ideas Used Immediately for Effective Future Application

According to [21], the ideas that assist teachers to ensure students' learning for future application are structured based on the specific themes or contrasting perspectives which enhance students' metacognitive skills. In addition, metacognition is defined as an act of thinking which helps individuals to make greater sense of life experiences and integrate learning from these experiences into future applications. The research by [22] highlighted that this is beneficial in developing self-awareness as students will be able to focus better and process information to acquire knowledge. However, in this aspect, teachers plan an effective role by giving students opportunities to reflect on themselves and monitor their skills that are required in a specific field for effective future development [23]. One of the respondents presented the same idea in his reflective report mentioning how metacognitive skills can be effective in integrating ideas to be used for future application.

"The second technique is metacognition which is defined as the capability to reflect on, and to some extent control, one's own thoughts, feelings and desires. It is the ability to see patterns in oneself and one's actions that gives an understanding of thoughts, actions and learning. In practice, this means that students know how to motivate themselves, solve problems, and plan how to understand. Furthermore, metacognition provides an opportunity for the student to choose learning paths and reflect on these choices."

Moreover, articulating problem-solving skills among students is essential in identifying where they are having trouble associated with the identification of specific concepts. As stated by [23], students need to be provided with positive reinforcement such that in future when they have to deal with crucial situations they should be able to act it out in a way that resolves problems without any conflict. In the words of [24], problem-solving should be a real part of the curriculum and effective for students to take on some responsibility focusing on thinking as a vital element for generating solutions. Similarly, a number of participants were in support the ability of problem-solving are effective for future application. One response from the reflection report is presented below highlighting the importance of problem-solving skills among students.

"One of the most interesting new ideas I have learnt was about the importance of enhancing the students' abilities of problem-solving in this new age where innovative and critical thinking are paramount."

Further, on the basis of the quantitative analysis, it has been found that one of the key aspects which have been suggested by participants pertaining to ideas used immediately for effective future application was meta-cognition. Though the majority of the participants (as shown in Figure 6) did not reflect on this aspect nonetheless, some of the respondents i.e. 41% of participants also reflected that meta- cognition is still observed as an idea used effectively for future application. Apart from this, the quantitative findings

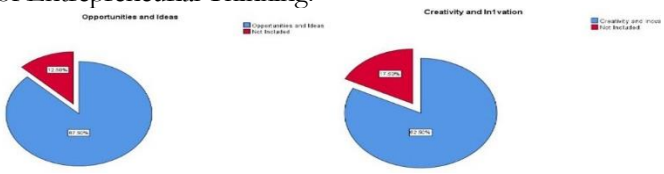
have also asserted that problem-solving strategies is also the one essential idea effectively used for future applications.

Theme 3: Entrepreneurial Thinking

Sub Theme 1: Diffusion of Entrepreneurial Thinking in the CCP Course by Participants

In the research by [25], it was analyzed that entrepreneurial thinking is important when an individual has the ability to solve problems with creativity with the inclusion of a set of ideas. Entrepreneurial thinking is the major ability which allows an individual to identify an opportunity and choose to act accordingly with innovative variations for continued success. Furthermore, as elucidated by [26], entrepreneurial thinking is generally understood as innovation as it is the essence of the development of core skills among students. The idea via which students become able to look into new ways and opportunities is creativity which enriches their mind and encourages divergent thinking. Teachers are required to develop entrepreneurial thinking among students through open-ended questions, informal discussions and sharing of ideas via experience-based learning [25]. Similarly, participants presented their views related to entrepreneurial thinking and innovation highlighting that integration of creative ideas allows an individual to look for opportunities to thrive success.

Figure.7: The Elements Which Involve the Diffusion of Entrepreneurial Thinking.



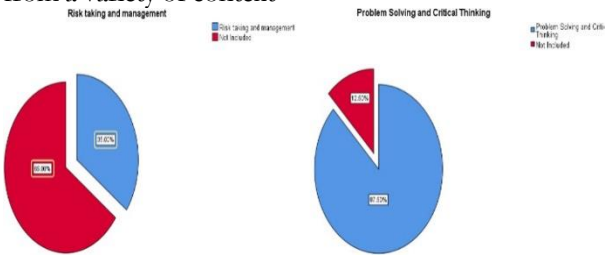
"Entrepreneurship in all its aspects has definitely become a major force for the creation of new and sustainable wealth. This has encouraged universities to include entrepreneurship-related skills in the curricula of almost all subject areas to prepare students to thrive in a society increasingly defined by innovation. The challenge here is which learning platforms are useful and effective in order to stimulate students' creativity."

Another Participant Mentioned That

"In order for students to understand the breadth and depth, educators have to start with innovation.
These involve a broad understanding of innovation, historical and contemporary content, the art of creativity, making creativity work, how innovation & creativity fuel entrepreneurship, the art of entrepreneurship and making entrepreneurship happen."

From the above-mentioned statements, it can be depicted that innovation and creativity are the key elements that involve a broad understanding of entrepreneurial thinking as in different core curriculum courses there is a need to include entrepreneurship-related skills. Similarly, [27] explained that entrepreneurial thinking is referred toas an ability which assists an individual in identifying marketplace opportunities to find and pursue the best solutions. It plays an effective role in career development when entrepreneurial thinking is included in core curriculum programs such that it is a set of skills which help students to make the most of the opportunities to succeed in a variety of settings and learn from setbacks [26].

Figure 8: Preparing students for unpredictable future from a variety of context



The frequency by which participants have reflected regarding the opportunities and ideas has been demonstrated through the following chart. It can be observed that 87.5 % of participants have reflected this element in their experience. Moreover, one of the other elements which involve the diffusion of thinking is creativity and innovation. Figure 7 shows that the majority of the respondents i.e. 82.5% has also suggested that creativity and innovation is an essential aspect in the diffusion of entrepreneurial thinking.

Sub Theme 2: Participants' preparing students for an unpredictable future in a variety of contexts

According to [23], many teachers prepare their students to deal with uncertainty in various situations in future regarding their core curriculum courses such as math, science and engineering. Therefore, teachers put students into situations where they have to solve true problems stressing decision-making and critical thinking. Moreover, problem-solving can be tedious and difficult in various situations showing students to be persistent and patient in articulating problem-solving skills. As mentioned by [28], the teachers in order to help

students to deal with various challenges train them to develop deductive thinking and analytical skills reflecting on problem-solving strategies making efforts. Similarly, a respondent reflected on his views on teachers preparing students to learn problem-solving skills:

"As my teaching philosophy is "thinking is learning", I have to adopt a learning approach that focuses on improving students' problem-solving skills, which require brainstorming, a high order of thinking and creativity. For example, I provide case study assignments from real industries to multi-disciplinary teams and evaluate students' critical and analytical thinking."

According to [29], an integral part of change is risk which is affected by teachers' practices adding value to both students and teachers. It is essential for the exploration of new possibilities and new ideas and development of risk-taking culture that encourages student participation as they learn the value of failure identify risk management strategies from various perspectives. Similarly, [28] highlighted how teachers energize classrooms by integrating risk management such as the development of a growth mindset and taking small steps to engage students in intellectual risk-taking which is known as adapting learning behaviours enabling students to learn new things and become more competent in dealing with unpredictable future. As a participant stated:

"Entrepreneurship is when students act upon opportunities and ideas thereby transforming them into value for others. The value that is created can be financial, cultural or social. However, this narrow definition is not what university students need to learn as they are required to be risk-takers. The entrepreneurship process also involves intention, opportunities of search and discovery, the decision to exploit opportunities and exploitation of opportunities."

The above-mentioned statement related entrepreneurship with risk-taking and explains that in order to exploit effective decision-making and seek for opportunities graduates should be able to manage risks and act accordingly.

Further, on the basis of the quantitative findings, it can also be established that while preparing students for an unpredictable future from a variety of contexts, participants have emphasised students to develop problem-solving and critical thinking skills. It can be observed that the majority of the respondents i.e. 87.5 % have included this aspect in their reflection. However, fewer respondents i.e. only 35 % have suggested that risk-taking and management is not as much preferred option while preparing students for the future. The results are illustrated in Figure 8.

Theme 4: Assessment

Sub Theme 1: Participants Have Learnt New Techniques to Assess Their General Education Students' Learning Outcomes.

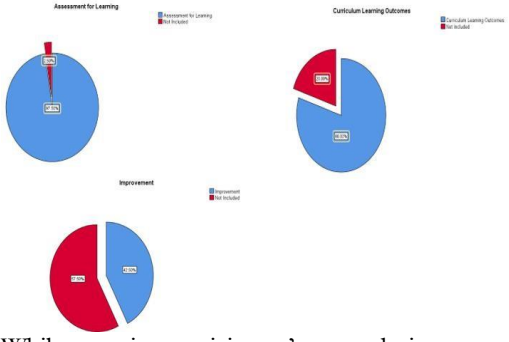
As stated by [30], assessment for learning is an approach to learning and teaching which creates feedback that is used to improve the performance of students. It is considered a planned task of skilled teachers which enhance student learning such that they do not repeat their mistakes again. Furthermore, in the words of Walters, Silva and Nikolai (2017), the assessment for learning and assessment of learning are the two new techniques that are adopted by teachers to assess students' performance based on learning about how should they respond to teachers. Additionally, the participants in their reflection reports also mentioned their use of these two techniques for assessing the learning outcomes of students. One of the respondents highlighted his integration of assessment of learning in the classroom and stated that:

"Assessment of learning is similar to a quick measure of students' learning during the semester. It can be achieved by structuring the assessments to follow the sequence of the topics. For example, the first test covers the first third of the course, the second test addresses the middle third of the course and the last assessment covers the last third of the course. By doing this, lecturers are assessing students' learning at a particular time only. Hence, assessments should be conducted for learning to help students with longer time retention and transfer."

From the above statement, it can be analysed that there are different ways in which teachers structure their assessment of learning to measure students' abilities and this assists them in analysing how students can be taught transferable and tacit knowledge skills to prepare students for efficiently learning general education. Similarly, [31] presented that the purpose of assessment for every teacher is to gather information relevant to the progress of students and make judgements related to their learning process. The ways adopted by teachers to assess the performance of students are based in the core curriculum courses which are about developing an ability to create well-designed psychometric tests serving as a powerful tool to examine the performance of students. Similar views were highlighted by one of the participants mentioning:

"Curriculum is the totality of students' experiences that occur in the education process. It can also be defined as a planned sequence of instructions with a view of students' experiences in terms of the program's instructional goals. In other words, the curriculum is an instructional strategy."

Figure 9: The Participants' New Techniques to Assess Their General Learning Outcome.



While assessing participants' new techniques to assess their general learning outcome, it has been validated through quantitative results that assessment for learning is the one essential aspect while assessing general education students' learning outcomes. Moreover, in terms of identifying the extent participants have referred to curriculum learning outcomes as an essential element for learning a new technique for their assessment of general learning outcomes, it has been found that the majority of the respondents have also reflected the element of curriculum learning outcome in their reflection. Further, upon quantifying the qualitative findings, it has also been found that the process of assessing generalized learning outcomes also leads to improvement.

Sub Theme 2: Ideas Learnt to Use The Assessment Rubrics More Effectively.

As mentioned by [32], the mechanism or tool which is considered effective in evaluating performance is known as a rubric which is a tool that allows measuring the skills and ideas learnt by a student from the core curriculum courses with an aim to analyse key dimensions of the student's learning. It is about measuring the skills of critical thinking and analysing the performance level of the student via formative and summative assessments to examine what was learned by students after the course [33]. One of the respondents stated that:

"I noticed that the goal of these Value Rubrics "are intended for institutional-level use in evaluating and discussing student learning, not for grading". This made me think that this type of rubric is to be used for different purpose such evaluating students' success in achieving the learning outcomes. Thus, I believe I can use it but in addition to the Holistic rubric."

The participant response above highlighted that different types of rubrics are adopted t measure varied performance level of students required to achieve learning outcomes. Moreover, as mentioned by [34], the rubrics for each process skill are designed to measure information processed by students and the development of critical thinking. The teachers or instructors must be able to provide feedback to students in a consistent manner supporting the adoption of active learning pedagogies.

Further, in terms of ideas learnt to use the assessment rubrics more effectively, as shown in Figure 10, it has been quantified that the majority of the participants i.e. 67.5 % participants have included this element in their reflection thereby suggesting how the use of assessment rubrics lead to improvement. Moreover, the result also indicates that by making effective use of marking rubrics, critical thinking is fostered.

Theme 5: Action Plan

Sub Theme 1: Action Plan Development to improve general education students' learning and

engagement by next year.

According to [35], an action plan is created to measure performance regarding the learning of students. It is a way of analysing the impact of any core curriculum course of general education on an individual regarding his or her learning. It is about acquiring knowledge about what has been learned based on the aspects of teaching, assessment and technology to examine self-directed learning. Moreover, as mentioned by [36], the learning process can be improved by focusing on the relevance of what has been learned to reflect on the gaps in the knowledge of an individual. Similarly, respondents mentioned that:

"This event has been a great inspiring academic opportunity that has accentuated my teaching philosophy principles such as stimulating motivation and engagement, enhancing student autonomy and critical thinking, promoting the use of authentic materials, providing clear formative assessment tools and rubrics as well as reinforcing the entrepreneurial mindset."

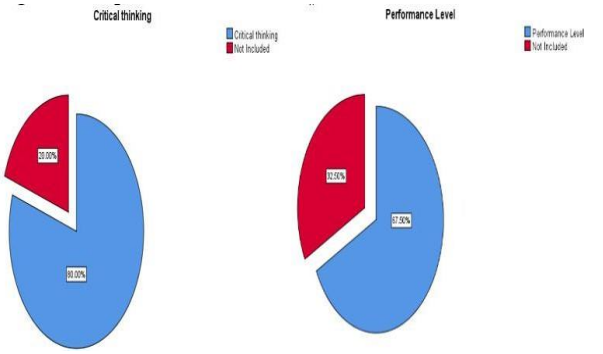


Figure 10: Ideas Learnt to Use the Assessment Rubrics More Effectively.

It can be analysed from the above statement that an action plan is effective in measuring motivation and engagement to identify the learning for the respective curriculum. Similarly, [35] elaborated that ways and techniques which improve the performance level of weaker students are assessed via action plans to measure shortcomings in an individual's learning.

In order to quantify the qualitative evidence, it has been found that (as shown in Figure 11) the majority of participants i.e. 85 % of participants have reflected that assessment capabilities are required to be improved. In addition, participants' teaching is also required to be improved as every participant has reflected on this aspect. Also, in order to improve general education learning, it has also been found that the majority of participants i.e. 97.5%, 96 % and 85% have emphasised on entrepreneurial thinking, technology and self- directed learning in order to improve general education learning and engagement among students.

Conclusion

In conclusion, this paper has explored various themes and sub-themes related to the field of education, specifically focusing on general education, teaching techniques, entrepreneurial thinking, assessment, and action planning. Through a thematic analysis, the study has shed light on important aspects within each theme.

The first theme, General Education, highlighted the key differences between general education and major courses, emphasizing the distinct skills required to effectively teach general education courses.

This understanding is crucial for educators as they navigate the challenges and nuances of teaching diverse student populations.

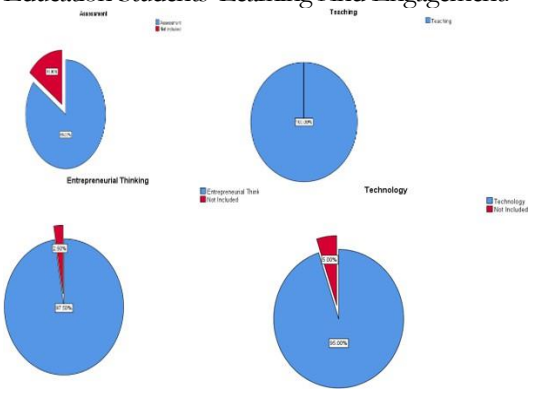
The second theme, Teaching, delved into the techniques employed by teachers to promote student engagement in core curriculum courses. Additionally, it examined the integration of technology in the general education classroom, providing educators with innovative ideas to enhance their teaching methodologies. The study also recognized the importance of participants' continuous learning to improve their own teaching practices.

Entrepreneurial Thinking emerged as the third theme, exploring the diffusion of entrepreneurial thinking in the CCP course by participants. Furthermore, it emphasized the significance of preparing students for an unpredictable future through diverse teaching contexts. This theme highlighted the necessity of fostering critical and creative thinking skills in students to adapt to changing circumstances.

Assessment, the fourth theme, addressed the adoption of new techniques to assess general education students' learning outcomes. The study also focused on leveraging assessment rubrics effectively to obtain comprehensive insights into students' progress and achievements.

Finally, the fifth theme, Action Plan, underscored the development of strategic plans to improve general education students' learning and engagement in the upcoming year. This theme emphasized the importance of proactive measures in enhancing the overall educational experience for students.

Figure 11: Action Plan Development to Improve General Education Students' Learning And Engagement.



In summary, this paper has explored a range of themes and sub-themes, offering valuable insights for educators, researchers, and policymakers. By examining these topics, the study aims to contribute to the continuous improvement of educational practices, promoting effective teaching, student engagement, entrepreneurial thinking, and assessment strategies in general education settings. It is hoped that the findings and recommendations presented in this paper will serve as a catalyst for positive change and innovation in the field of education.

Acknowledgement
"I would like to acknowledge the support of Grant ID: QUCP-EDU-2020-1, which made this research possible."

References

L. Starkey, "Three dimensions of student-centred education: a framework for policy and practice," *Critical Studies in Education*, vol. 60, no. 3, pp. 375–390, 2019.

C. Damşa and T. de Lange, "Student-centred learning environments in higher education: From conceptualization to design," *Uniped*, vol. 42, no. 1, pp. 9–26, 2019.

G. Onurkan Aliusta and B. Özer, "Student-centred learning (SCL): roles changed?," *Teachers and Teaching*, vol. 23, no. 4, pp. 422–435, 2017.

M. Hussain, R. Tabussam, and M. I. Yousuf, "Effect of Professional Knowledge and Feedback Communication Skills among Teachers and Students at College Level.," *Bulletin of Education and Research*, vol. 39, no. 2, pp. 83–94, 2017.

A. Khan, S. Khan, S. Zia-Ul-Islam, and M. Khan, "Communication Skills of a Teacher and Its Role in the Development of the Students' Academic Success.," *Journal of Education and Practice*, vol. 8, no. 1, pp. 18–21, 2017.

R. M. Schmaltz, E. Jansen, and N. Wenckowski, "Redefining critical thinking: Teaching students to think like scientists," *Front Psychol*, p. 459, 2017.

G. R. Akramova, "Modern Approaches to Development Critical Thinking of Students," *Eastern European Scientific Journal*, no. 5, 2017.

H. Peters *et al.*, "Twelve tips for enhancing student engagement," *Med Teach*, vol. 41, no. 6, pp. 632–637, 2019.

T. Soffer and A. Cohen, "Students' engagement characteristics predict success and completion of online courses," *J Comput Assist Learn*, vol. 35, no. 3, pp. 378–389, 2019.

T. Rashid and H. M. Asghar, "Technology use, self-directed learning, student engagement and academic
performance: Examining the interrelations," *Comput Human Behav*, vol. 63, pp. 604–612, 2016.

J. Kranzow and N. Hyland, "Self-directed learning: Developing readiness in graduate students," *International Journal of Self-Directed Learning*, vol. 13, no. 2, pp. 1–14, 2016.

T. Allouh, S. Al Qadhi, and W. Yousef, "Qatari Public Schools' EFL Educators' Knowledge About P□□□a and Phonics".

D. Song and C. J. Bonk, "Motivational factors in self-directed informal learning from online learning resources," *Cogent Education*, vol. 3, no. 1, p. 1205838, 2016.

D. S. M. Qadhi, "A systematic (HEI) in Gulf countries," *2022. International Journal.*

S. Mchombo, "Verbal Arts as culturally relevant pedagogical tools in math/science education," *Promoting Language and STEAM as Human Rights in Education: Science, Technology, Engineering, Arts and Mathematics*, pp. 17–38, 2019.

R. R. Zamaletdinov, I. A. Kuznetsov, N. S. Sakharova, V. G. Gladkikh, and N. E. Erofeeva, "Pedagogical tools of professional ideals management of modern student," *International review of management and marketing*, vol. 6, no. 2, pp. 364–369, 2016.

A. V. Mart\'\in-Garc\'\ia, "Pedagogical Tools for Teaching in a Blended Learning System," *Blended Learning: Convergence between Technology and Pedagogy*, pp. 211–229, 2020.

O. Usman and V. Miranda, "The Influence of Learning Motivation, Cognitive Strategy, Prior Knowledge on Learning Satisfaction," *Cognitive Strategy, Prior Knowledge on Learning Satisfaction (June 30, 2020)*, 2020.

T.-M. Nguyen, T. P. Nham, F. J. Froese, and A. Malik, "Motivation and knowledge sharing: a meta- analysis of main and moderating effects," *Journal of Knowledge Management*, 2019.

A. Riener, "Motivating Students to Understand, Rather Than Consume, Knowledge," *IEEE Pervasive Comput*, vol. 18, no. 1, pp. 79–83, 2019.

L. Listiana, H. Susilo, H. Suwono, and E. Suarsini, "Empowering students' metacognitive skills through new teaching strategy (group investigation integrated with think talk write) in biology classroom," *Journal of Baltic Science Education*, vol. 15, no. 3, p. 391, 2016.

P. Van Thuy, "Developing students metacognitive skills in mathematics classroom," *Annals. Computer Science Series, XV*, vol. 1, pp. 41–46, 2017.

A. J. Khoiriyah and H. Husamah, "Problem-based learning: Creative thinking skills, problem-solving skills, and learning outcome of seventh grade students," *JPBI (Jurnal Pendidikan Biologi Indonesia)*, vol. 4, no. 2, pp. 151–160, 2018.

A. Abdollahi, M. Abu Talib, P. Carlbring, R. Harvey, S. N. Yaacob, and Z. Ismail, "Problem-solving skills and perceived stress among undergraduate students: The moderating role of hardiness," *J Health Psychol*, vol. 23, no. 10, pp. 1321–1331, 2018.

H. Peschl, C. Deng, and N. Larson, "Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century," *The International Journal of Management Education*, vol. 19, no. 1, p. 100427, 2021.

C. Grădinaru, S.-G. I. Toma, and P. I. Marinescu, "Entrepreneurial thinking in the educational system," in *Value Sharing for Sustainable and Inclusive Development*, IGI Global, 2018, pp. 29–48.

T. H. Clausen, "Entrepreneurial thinking and action in opportunity development: A conceptual process model," *International Small Business Journal*, vol. 38, no. 1, pp. 21–40, 2020.

P. Häkkinen, S. Järvelä, K. Mäkitalo-Siegl, A. Ahonen, P. Näykki, and T. Valtonen, "Preparing teacher- students for twenty-first-century learning practices (PREP 21): a framework for enhancing collaborative problem-solving and strategic learning skills," *Teachers and Teaching*, vol. 23, no. 1, pp. 25–41, 2017.

M. Bahar and P. Aksut, "Investigation on the Effects of Activity-Based Science Teaching Practices in the Acquisition of Problem Solving Skills for 5-6 Year Old Pre-School Children.," *Journal of Turkish Science Education*, vol. 17, no. 1, pp. 22–39, 2020.

S. T. Fukuda, B. W. Lander, and C. J. Pope, "Formative assessment for learning how to learn: Exploring university student learning experiences," *RELC Journal*, vol. 53, no. 1, pp. 118–133, 2022.

D. Carless, S. M. Bridges, C. K. Y. Chan, and R. Glofcheski, *Scaling up assessment for learning in higher education*. Springer, 2017.

P. Dawson, "Assessment rubrics: towards clearer and more replicable design, research and practice," *Assess Eval High Educ*, vol. 42, no. 3, pp. 347–360, 2017.

A. Cockett and C. Jackson, "The use of assessment rubrics to enhance feedback in higher education: An integrative literature review," *Nurse Educ Today*, vol. 69, pp. 8–13, 2018.

S. Faletič and G. Planinšič, "How the introduction of self-assessment rubrics helped students and teachers in a project laboratory course," *Phys Rev Phys Educ Res*, vol. 16, no. 2, p. 20136, 2020.

C. E. L. Plan, "Crewe Station Hub Area Action Plan: Development Strategy," 2019.

M. A. Cardoso *et al.*, "Following a step by step development of a Resilience Action Plan," *Sustainability*, vol. 12, no. 21, p. 9017, 2020.