The Impact of Virtual Collaboration Tools on 21st-Century Skills, Scientific Process Skills and Scientific Creativity in STEM

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***Abstract*—Virtual collaboration tools have become increasingly important in STEM education, especially after the COVID-19 pandemic. These tools offer many benefits, including developing 21st-century skills and fostering scientific process skills and scientific creativity. However, there are concerns regarding their effectiveness across different genders and regions. This study evaluates the impact of the ExxonMobil Young Engineers (EYE) program, which uses the Zoom application, on enhancing 21st-century skills, scientific process skills, and scientific creativity among secondary school students in Malaysia. The participants primarily consist of 520 secondary school students, with teachers acting as facilitators and professional engineers from ExxonMobil serving as instructors. A pre-test survey was conducted to assess students' initial skill levels. The program consisted of three phases: briefing, breakout room activities, and final reflections. After the program, a post-test survey was conducted to evaluate changes in student skills. Data analysis was analyzed using SPSS software by employing descriptive statistics, MANOVA with Wilks' lambda, one-way ANOVA, and partial eta squared to measure the program's impact and the influence of gender and regional factors. The results showed significant improvements in all three skill areas post-intervention: 21st-century skills, scientific process skills, and scientific creativity. Gender differences were significant for 21st-century skills, while regional differences significantly affected scientific process skills. The EYE program could enhance students' STEM-related skills using virtual collaboration tools like Zoom. However, regional and gender differences highlight the importance of adapting programs to address specific challenges and ensuring equitable opportunities for all students.**

Keywords*—Virtual collaboration tools; 21st-century skills; scientific process skills; scientific creativity; STEM education

I. Introduction

Virtual collaboration tools have become more common in STEM education, offering many benefits for developing 21st-century skills and scientific process and creativity skills. Online collaborative learning through small group discussions has been shown to promote knowledge co-construction and higher-order thinking skills in STEM subjects [1]. Virtual environments provide opportunities for direct interactions, helping students build knowledge and develop the mental processes involved in learning [2]. These tools facilitate collaborative learning and improve the effectiveness of learning experiences, especially when properly supported [3]. During the COVID-19 pandemic, the shift to virtual educational spaces raised concerns, especially in STEM education, where changes to lab work and online teaching practices are actively discussed [4]. Virtual simulation in teacher education has emerged as a method to provide opportunities for teachers to practice essential skills, such as parent-teacher collaboration, in a safe and controlled environment [5]. Even so, the effectiveness of these tools depends heavily on the technological infrastructure available to students and educators and their proficiency in using these technologies. There is a need for training programs to ensure that teachers can effectively integrate these tools into their teaching practices.

To effectively prepare students for success in the 21st century, educators must focus on teaching and look after 21st-century skills. These skills include collaborative problem-solving, critical thinking, creativity, communication, and digital literacy [6], [7], [8]. 21st-century skills include learning and innovation, information technology, and career skills, which are crucial for students' future [9], [10]. Teachers must integrate these skills into their teaching practices to ensure students have the necessary abilities to thrive in their future careers [11], [12]. By emphasizing these skills, educational institutions can also prepare students to meet the demands of the modern workforce requirement [13]. One major issue is the lack of school resources, leading to unequal access to the tools and training necessary for teachers and students. Schools in underprivileged areas may have issues with related infrastructure or funding to provide a conducive environment to develop these skills.

Scientific process skills are fundamental for conducting scientific research and advancing scientific knowledge [14]. These skills include a blend of physical, emotional, and thinking abilities used in scientific work [15]. Key process skills, such as identifying variables, forming hypotheses, and designing experiments, are vital for solving problems and creating new knowledge [16], [17]. Science process skills focus on knowledge transfer and problem-solving in real-life scenarios [18]. Developing these skills through activities like scientific questioning, experimental skills, and data interpretation enhances students' scientific literacy and attitudes toward science-based subjects [19], [20], [21]. Clear instruction helps learn science inquiry skills [22]. Metacognitive abilities support scientific process skills by helping students manage their

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understanding and learning processes [23]. Again, the same issues will happen to schools with limited resources, which may struggle to provide hands-on experiences and experimental activities for developing these skills.

Scientific creativity includes understanding scientific phenomena, developing scientific knowledge creatively, solving complex science problems, enhancing product quality, and designing innovative scientific products [24]. These skills are connected with scientific process skills, where people who think and discuss, like scientists, show better scientific creativity [25]. Scientific creativity involves producing original and valuable outcomes with a specific purpose using available information [26]. It is a higher-order thinking skill essential for scientific thinking and differentiating between typical and exceptional scientific thinkers [27]. Enhancing scientific creativity often involves mastering creative thinking, which stimulates science process skills like observation, prediction, and hypothesis formation [28]. Scientific creativity relies on scientific knowledge and skills, combining a static structure with a developmental one [29]. Encouraging lifelong learning can improve individuals' scientific creativity skills [30]. One major challenge in nurturing scientific creativity is the need for professional development for teachers to help them recognize and nurture scientific creativity in their students. Many educators may lack the training or confidence to implement creative teaching strategies effectively.

Based on the issues related to these three skills. This study aims to evaluate the effectiveness of a virtual collaboration approach in improving 21st-century skills, scientific creativity, and scientific process skills in STEM education. Specifically, it will assess the impact of the ExxonMobil Young Engineers program, delivered through virtual collaboration tools, on enhancing these crucial skills among students. This paper comprises the following sections: a background study, a methodology section, results and discussion, and concludes with conclusions and future directions.

II. Background Study

In STEM education, nurturing 21st-century skills, scientific process skills, and scientific creativity skills has become a focal point for preparing students for the demands of the modern workforce. STEM education, which integrates Science, Technology, Engineering, and Mathematics, cultivates problem-solving abilities in real-world contexts and adopts essential 21st-century skills [31]. These skills include logical reasoning, problem-solving, collaboration, critical thinking, creativity, and communication, which are crucial for success in the current related job market [32]. STEM practices have been increasingly emphasized globally to enhance students' competencies in mathematics and engineering, aiming to equip them with the necessary skills to survive and thrive in today's society [33]. By incorporating project-based learning approaches and activities that involve scientific inquiry and engineering design processes, STEM education can effectively develop 21st-century practices and other related skills [34]. Even so, there is a need for continuous professional development for educators to keep pace with the rapidly evolving STEM fields. Teachers must be proficient in STEM content and pedagogical strategies that promote active learning and critical thinking. Without adequate training and support, educators may struggle to deliver STEM curricula that engage and inspire students effectively.

Virtual meeting tools enhance STEM education by promoting collaboration, engagement, and learning outcomes. Teachers highly value hands-on activities in STEM education [35], and platforms like Zoom have become crucial during the pandemic [36]. Digital tools have made STEM education more accessible [37], and online collaborative tools have been shown to improve learning outcomes and motivation [38]. Many tools are available and effective for virtual teaching [39], [40]. It can be used to enhance online presence whilst improving collaborative learning [41], [42]. The shift to remote instruction due to COVID-19 has led to exploring online resources for self-learning [43]. Universities are encouraged to cultivate self-regulated and peer-collaborative learning skills online [44]. However, the transition to virtual STEM education comes with challenges. One major issue is the digital divide, where students from low-income families may lack access to reliable internet connections and necessary devices, preventing them from fully participating in online learning. This gap worsens educational inequalities and limits the effectiveness of virtual meeting tools in improving STEM education for all students.

Various factors, including gender stereotypes, cultural norms, and personal interests influence gender disparities in STEM education. Studies have shown that gender differences in STEM careers can be traced back to early adolescence and are caused by societal expectations and decision-making processes [45]. Other than that, implicit gender-science stereotypes vary across countries and can contribute to gender differences in STEM achievement and representation [46]. Addressing gender differences in STEM fields is crucial not only for promoting gender equality but also for diversifying the workforce and creating a more competitive environment [47]. Efforts to bridge the gender gap in STEM education should consider the impact of cultural factors, traditional gender role beliefs, and the importance of providing equitable learning opportunities for all students [48]. Effective strategies in one country or community might not be applicable in another. Tailoring interventions to local needs and involving the community in developing and implementing programs can enhance their effectiveness.

Rural students often face challenges in STEM education due to limited access to resources and qualified teachers compared to urban areas [49]. Geographic differences in postsecondary STEM participation are influenced by students' demographics, aspirations, and academic preparation [50]. When given resources, rural educators can create strong systems for advanced STEM talent development [51]. Leadership practices, such as community relationships and empowering STEM teachers, contribute to STEM education success in rural schools [52]. To bridge the gap, it is crucial to engage diverse students in pursuing STEM fields [53]. Implementing STEM programs in rural schools, such as using the STEM Engineering Design Process, can produce positive outcomes [54]. This initiative should focus on inclusivity and diversity, ensuring that all students, including those from diverse urban backgrounds, have fair access and opportunities in STEM fields. This approach helps reduce the educational gap and encourages students to pursue STEM careers.

III. Methodology

The ExxonMobil Young Engineers Program utilizes the Zoom application as the medium for the virtual collaboration session, which involves 10 schools. The participants primarily consist of secondary school students, with teachers acting as facilitators and professional engineers from ExxonMobil serving as instructors, with an instructor-to-student ratio of 1:10. Each student is provided with STEM kits before the program starts. A pre-test survey was conducted before the program started to identify the students' initial levels of 21st-century skills, scientific process skills, and scientific creativity. The program has three phases: In Phase 1, instructors gather all participants in the main room to explain the program's structure and goals. In Phase 2, participants are divided into breakout rooms, one for each school, each with one instructor, up to five facilitators, and ten students. They conduct three educational modules, each lasting one hour, focusing on real jobs for oil and gas engineers and using a problem-based learning approach. The modules, adapted from energy4me®, are "Getting the Oil Out," "Core Sampling," and "Exploring Oil Seeps," which replicate real challenges in the oil and gas industry. In Phase 3, all participants return to the main room for a final discussion, where instructors and facilitators answer questions and provide final reflections on the program outcomes. This structured approach ensures comprehensive engagement and learning for all participants. After the program was completed, a post-test survey was distributed to evaluate the program's impact on the three main skills, which is the main objective of this study. Fig. 1 shows the overview of the EYE program structure and study phases.

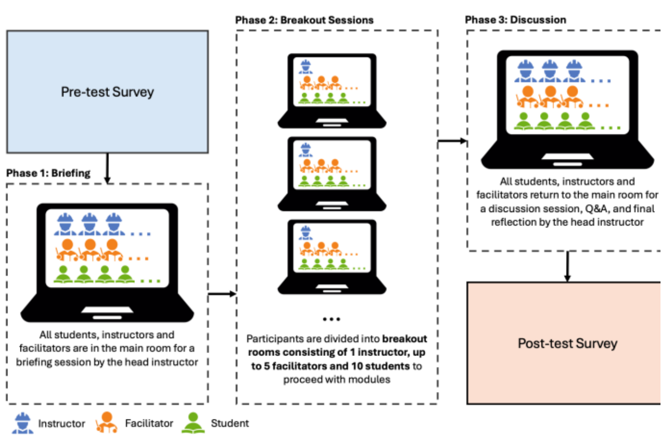

Fig. 1. Overview of the EYE program structure and study phases.

Fig. 2 shows the execution of the EYE program via Zoom. Instructors led the module through Zoom, while facilitators assisted students in following the instructors' instructions. Participants used STEM kits to accomplish the modules by following the instructions provided by the instructors.

A. Instrument

The data collection tool employed in this study was a questionnaire adapted from previous related studies, as shown in Table I. Minor modifications were made to customize it to achieve the research's specific objectives. This instrument was used to gather data to assess the program's impact on STEM literacy by conducting pre and post-surveys before and after the program. The questionnaire comprised two main sections: the first focused on gathering demographic information about the respondents, and the second focused on the study's core constructs. These constructs related to STEM skills were categorized.

Fig. 2. Execution of the EYE program via ZOOM (own sources).

TABLE I. Questionnaire Items on 21st-Century Skills, Scientific Process Skills, and Scientific Creativity

Construct	Items	Item Source
21st-century skill	I will be optimistic about completing a given activity through Zoom.	[55]
	I always think of different methods from different perspectives in solving a problem.	[56]
	I always come up with something new when studying science.	[55]
	I am always optimistic about performing tasks using Zoom.	[57]
	I always think critically and rationally to complete tasks.	[56]
Scientific process skill	Before starting an activity, I must plan, make hypotheses and identify problems.	[58]
	I get information from the facilitator and the internet to carry out activities	[59]
	I will record all work steps and processes, and evaluate the activities I produce	[58]
	I keep all data, calculations, and activity sketches as evidence of the work.	[58]
	I present and show the results of my activities to the facilitators and friends through Zoom	[59]
Scientific creativity	I like to give views and suggestions to facilitators and friends about the activities carried out through Zoom	[60]
	I like to discuss the design of my activities with other friends through Zoom	[61]
	I always think about the effects and consequences of the activities that will be carried out	[61]
	I like associating the activities with the latest elements of science and technology.	[56]
	I like to follow the example of activities given by the facilitator through Zoom	[60]

B. Analysis

In this study, gender and region are the dependent variables, while 21st-century skills, scientific process skills, and scientific creativity are independent variables. The objective is to evaluate the ExxonMobil Young Engineers (EYE) program's impact on these skills and to explore how gender and regional factors influence skill development. Data were collected through pre- and post-test surveys administered to secondary school students in Malaysia, using a 5-point Likert scale. SPSS software was used for analysis, including descriptive statistics to summarize mean values and standard deviations. Multivariate Analysis of Variance (MANOVA) tested the significance of skill differences between pre-and post-test scores and examined the effects of gender and region. One-way ANOVA assessed the significance of differences by gender and region for each skill, with Partial Eta Squared measuring the effect size. Levene's test was performed to assess the assumption of homogeneity of variances across groups. Levene's test results were insignificant ($p > 0.05$), suggesting that the variances are approximately equal across the groups for the dependent variables. This indicates that the assumption of homogeneity of variances is met, supporting the validity of proceeding with the MANOVA. Therefore, the MANOVA was conducted assuming that the equal variances condition is satisfied." Stratified random sampling was employed to select students from both rural and urban areas.

IV. Findings and Discussion

The table shows the demographic characteristics of the study's participants, giving information about their gender and where they live. The data shows that 196 participants were male, making up 37.7%. The majority, 324 participants, were female, making up 63.2%. 192 participants were from urban areas, accounting for 37.0%. A larger portion, 328 participants, were from rural areas, making up 63.0% of the total. This breakdown of participants by gender and location helps understand the study's sample, which can affect the generalizability of the research findings and any potential impacts of demographics on the study's results. Table II shows the demographic information of the study.

Table III shows the mean score values of the pre-test and post-test for 21st-century skills, scientific process skills, and scientific creativity. The data indicated increased scores in all three skill areas: 21st-century skills improved from a pre-test mean of 4.3304 to a post-test of 4.4423, scientific process skills from 4.2322 to 4.3495, and scientific creativity from 4.0635 to 4.2858. Statistical analyses confirmed these improvements, with significant p-values ($p < 0.05$) indicating the program's effectiveness.

TABLE II. Demographic Information

Demographic Characteristics	Number of Participants
Gender	
Male	196 (37.7%)
Female	324 (63.2%)
Region	
Urban areas	192 (37.0%)
Rural Areas	328 (63.0%)

These results suggest that the ExxonMobil Young Engineers (EYE) program significantly enhances students' STEM-related skills. The improvements in post-test scores across all three areas indicate that virtual collaboration tools, such as the Zoom application used in the EYE program, can effectively support skill development. Zoom's use as a virtual collaboration tool has several advantages that contribute to these positive outcomes. Zoom allows for interactive sessions, where students can engage in real-time discussions, collaborative projects, and hands-on activities, which are crucial for developing 21st-century and scientific process skills. The platform's features, such as breakout rooms, screen sharing, and real-time feedback, facilitate a dynamic and engaging learning environment that can adapt to different teaching styles and learning needs.

While the findings are promising, several limitations must be considered. The sample size, though adequate, may not represent the entire population of secondary school students in Malaysia. Potential biases could arise from self-reported data and using a single program for analysis. The assumptions of the statistical tests, such as the normality of data distribution, were checked but could still affect the results. Comparing these findings with previous research, it is evident that virtual collaboration tools are becoming increasingly important in STEM education. The greater improvement in scientific creativity among female students observed in this study highlights the potential for virtual collaboration tools like Zoom to provide an inclusive learning environment that supports all students. This requires further investigation to understand the underlying factors better and tailor the program to benefit both genders equally.

TABLE III. Mean Score Value of The Pre-Test and Post-Test For 21st Century Skills, Scientific Process Skills, and Scientific Creativity

Construct	Mean Value	
	Pre-test	**Post-test**
21st century skills	4.3304	4.4423
Scientific process skills	4.2322	4.3495
Scientific creativity	4.0635	4.2858

A. 21st Century Skills

The analysis presented in Table IV demonstrates significant improvements in 21st-century skills post-intervention, with Wilks' lambda = 0.982, F = 9.181, p = 0.003, and partial eta squared = 0.018. These results highlight the effectiveness of the ExxonMobil Young Engineers (EYE) program, which uses virtual collaboration tools, such as Zoom, to enhance students' competencies. The higher post-test scores indicate that integrating virtual collaboration tools effectively improves students' 21st-century skills, including critical thinking, problem-solving, collaboration, and digital literacy.

The analysis also found significant gender differences, with female students showing greater improvement in their 21st-century skills compared to male students (Wilks' lambda = 0.992, F = 3.883, p = 0.049, partial eta squared = 0.008). This suggests that virtual collaboration tools like Zoom may be particularly effective for female students, potentially due to the inclusive and flexible nature of virtual environments. These platforms can accommodate different learning styles and preferences, which might help female students engage and excel more effectively. Further research should investigate the reasons behind these gender differences to tailor the EYE program more effectively for both genders.

Regional factors did not significantly affect skill development (Wilks' lambda = 0.999, F = 0.753, p = 0.386, partial eta squared = 0.001), indicating that the EYE program's effectiveness is consistent across different regions. This consistency suggests that virtual collaboration tools like the Zoom application can deliver high-quality education regardless of regional disparities [38]. The broad applicability of the EYE program across various geographical locations underscores the potential of virtual collaboration tools to provide equitable learning opportunities to students from diverse backgrounds.

The significant improvement in 21st-century skills emphasizes the potential of virtual collaboration tools as effective mediums for developing essential student competencies. Virtual collaboration tools like Zoom offer several advantages, including accessibility, flexibility, engagement, and collaboration [42]. These collaboration tools allow students to stay engaged with interactive content and real-time feedback and work together with peers and instructors through virtual platforms [40].

TABLE IV. MULTIVARIATE ANALYSIS OF 21ST CENTURY SKILLS, GENDER, AND REGION USING WILK'S LAMBDA

Effects	Wilks' Lambda Value	F	df1	df2	P	Partial Eta Squared
21st Century Skill	0.982	9.181b	1	504	0.003*	0.018
Gender	0.992	3.883b	1	504	0.049*	0.008
Region	0.999	.753b	1	504	0.386	0.001

B. Scientific Process Skills

The analysis in Table V shows a significant improvement in scientific process skills post-intervention, with Wilks' lambda = 0.964, F = 18.916, p = 0.000, and partial eta squared = 0.036. This indicates that the ExxonMobil Young Engineers (EYE) program, which uses virtual collaboration tools like the Zoom application, effectively enhanced students' scientific process skills. The significant increase in scores underscores the impact of virtual collaboration tools in providing a robust educational experience.

Gender differences were found to be insignificant (Wilks' lambda = 0.999, F = 0.273, p = 0.602, partial eta squared = 0.001), suggesting that both male and female students benefited equally from the program. This finding is important as it highlights the inclusive nature of virtual collaboration tools like Zoom, which can cater to diverse groups of students without gender bias. Zoom's flexibility and interactive features may create an equitable learning environment where all students can thrive [36].

However, regional differences significantly affected scientific process skills (Wilks' lambda = 0.992, F = 4.067, p = 0.044, partial eta squared = 0.008). This indicates that the program's effectiveness varied slightly across different regions. These regional variations suggest that while virtual collaboration tools like Zoom are generally effective, there may be differences in how they are implemented or accessed in various areas [49]. Some schools involved in the EYE program have issues with technology infrastructure that affect the program's flow. Other factors such as internet connectivity, availability of digital devices, and local educational practices, could also influence the effectiveness of the EYE program across regions [51].

These findings highlight the potential of virtual collaboration tools, such as Zoom, to enhance scientific process skills among secondary school students. The effectiveness of the EYE program across gender lines suggests that it is a valuable tool for promoting STEM education for all students. The regional differences indicate a need for tailored approaches to address specific challenges that may arise in different areas. Ensuring consistent access to resources and support across regions can help maximize the benefits of virtual collaboration tools.

TABLE V. MULTIVARIATE ANALYSIS OF SCIENTIFIC PROCESS SKILLS, GENDER, AND REGION USING WILK'S LAMBDA

Effects	Wilks' Lambda Value	F	df1	df2	P	Partial Eta Squared
Scientific Process Skill	0.964	18.916b	1	504	0.000*	0.036
Gender	0.999	0.273b b	1	504	0.602	0.001
Region	0.992	4.067b	1	504	0.044*	0.008

C. Scientific Creativity

The analysis in Table VI shows a significant improvement in scientific creativity post-intervention, with Wilks' lambda = 0.905, F = 52.836, p = 0.000, and partial eta squared = 0.095. This substantial effect size indicates that the ExxonMobil Young Engineers (EYE) program, which utilizes virtual collaboration tools such as Zoom, effectively enhances students' scientific creativity. The large improvement in scores underscores the impact of virtual collaboration tools in providing an engaging and stimulating educational experience.

Gender differences were found to be insignificant (Wilks' lambda = 0.992, F = 4.067, p = 0.804, partial eta squared = 0.000), suggesting that both male and female students benefited equally from the program. This finding is important as it highlights the inclusive nature of virtual collaboration tools like Zoom, which can cater to diverse groups of students without gender bias. The interactive features of Zoom, such as breakout rooms, real-time collaboration, and multimedia integration, may contribute to creating an equitable learning environment [38] where all students can develop their scientific creativity.

Regional differences also showed no significant effect on scientific creativity (Wilks' lambda = 0.999, F = 0.512, p = 0.474, partial eta squared = 0.001). This suggests that the EYE program's effectiveness in enhancing scientific creativity is consistent across different regions. The consistency of the program's impact across various geographical locations highlights the potential of virtual collaboration tools like Zoom to deliver high-quality education regardless of regional factors. This result indicates that the program can be broadly applied and adaptable to various regional contexts, providing learning opportunities to students from diverse backgrounds.

The significant improvement in scientific creativity shows that virtual collaboration tools effectively develop important skills in students. Virtual tools like Zoom offer accessibility, flexibility, engagement, and collaboration. They allow students to access resources from any location, learn at their own pace, stay engaged with interactive content, and collaborate with peers and instructors, which is important in STEM education [35]. The EYE program effectively enhances scientific creativity using Zoom, demonstrating its potential to provide inclusive, high-quality education. These findings highlight the importance of integrating virtual collaboration tools in educational programs to prepare students for future challenges in a rapidly evolving digital world.

TABLE VI. MULTIVARIATE ANALYSIS OF SCIENTIFIC CREATIVITY, GENDER, AND REGION USING WILK'S LAMBDA

Effects	Wilks' Lambda Value	F	df1	df2	P	Partial Eta Squared
Scientific Creativity	0.905	52.836b	1	504	0.000*	0.095
Gender	0.992	4.067b	1	504	0.804	0.000
Region	0.999	0.512 b	1	504	0.474	0.001

V. CONCLUSION AND FUTURE IMPROVEMENT

The ExxonMobil Young Engineers (EYE) program has shown great promise in improving students' 21st-century skills, scientific process skills, and scientific creativity through virtual collaboration tools like Zoom. The program's structured approach, which includes interactive sessions, group projects, and real-time feedback, has effectively engaged students and helped them develop these skills. The overall improvements in all three skill areas highlight the program's success. Enhancing 21st-century skills shows virtual collaboration tools can improve critical thinking, problem-solving, collaboration, and digital literacy. Gender differences were noted, with female students showing greater improvement in their 21st-century skills than male students. This suggests that the inclusive and flexible nature of virtual environments, like those facilitated by Zoom, may be particularly effective for female students. Scientific process skills also showed significant improvement after the intervention. Both male and female students benefited equally, indicating that virtual collaboration tools can provide a fair learning experience. However, regional differences did affect scientific process skills, suggesting some variation in program effectiveness across different areas. The most improvement was in scientific creativity, with both male and female students benefiting equally, and the program's effectiveness was consistent across different regions. This indicates that virtual collaboration tools like Zoom have a broad and consistent impact on improving students' creative thinking and innovation skills. These findings highlight the importance of integrating virtual collaboration tools in educational programs to prepare students for the challenges of the modern workforce. The EYE program's success across gender and regional lines suggests that such initiatives can be scaled and adapted for broader educational contexts, providing high-quality, inclusive education.

While the EYE program has shown considerable success, several areas need enhancement to maximize its impact and ensure all students benefit equally. The regional differences observed in scientific process skills suggest a need for tailored approaches to address specific challenges in different areas. Ensuring consistent access to resources, such as reliable internet connectivity and digital devices, can help bridge these gaps. Additionally, training local educators to use virtual collaboration tools effectively can enhance the program's impact across all regions. The greater improvement observed among female students in 21st-century skills requires further investigation. Understanding the underlying factors contributing to these differences can help tailor the program to support both genders equally. Future research could also explore the elements of virtual collaboration environments suitable for female students to adapt to the program accordingly. Integrating more advanced technologies, such as augmented reality (AR) and virtual reality (VR), could also further enhance the learning experience. These technologies can provide immersive and interactive learning environments that stimulate students' creativity and critical thinking skills.

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