Enhancing Cultural and Religious Tourism Students' Competence through PjBL: Collaborative Learning in MICE (Meeting, Incentive, Convention, and Exhibition)

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ARTICLE INFO	ABSTRACT
	This study aims to analyze the effectiveness of Project-Based Learning (PjBL) in developing 21st-century skills among students of the Cultural and Religious Tourism Study Program at the Tarutung State Christian Institute through the MICE (Meeting, Incentive, Convention, and Exhibition) course. Employing a qualitative case study approach, the research involved 37 sixth-semester students and utilized questionnaires, interviews, and documentation to collect data. The findings show that the implementation of PjBL significantly improves students' critical thinking, creative thinking, communication, and collaboration skills. Real-life project experiences through MICE activities encouraged students to analyze problems, generate innovative ideas, work collaboratively in teams, and communicate effectively with various stakeholders. Students also reported increased motivation, independence, and engagement throughout the learning process. These results underscore the practical relevance of PjBL in preparing students for the dynamic demands of the tourism industry. Future research is recommended to expand the application of PjBL in other tourism-related subjects and to explore its impact on students' digital and leadership competencies. *This is an open access article under the <u>CC BY-NC-SA</u> license.*

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1. INTRODUCTION

The MICE (Meeting, Incentive, Convention and Exhibition) course is a course contained in the curriculum of the Cultural and Religious Tourism Study Program – Tarutung State Christian Institute and is taught to Semester VI students. The course offers project-based classes and lesson plans designed to spark students' creativity in order to develop the critical thinking skills needed to become successful young people, particularly in the field of Cultural Tourism. In achieving the goals of learning these two

courses, efforts are needed from the lecturers who teach the course to determine the right teaching method so that students have the opportunity to be involved in real and meaningful projects. Starting a project with creative ideas and ideas about current issues is often the most difficult part faced by a lecturer, because in addition to ideas and ideas, time and energy also need to be given fully for the realization of project-based learning, which is actually designing   the right assessment draft for the project that students are doing (Krisdiana et al., 2014). Assessment is an equally important part of the learning process, because from the assessments given, students can reflect, receive feedback and have the opportunity to develop in each subsequent project.

For some of these reasons, lecturers are reluctant to apply project-based learning to these two courses, so they prefer to use the old (conventional) method, namely by only providing theories related to the two courses in the classroom without applying them to a real project. In fact, the project-based learning system is not a new learning system in the world of education. There are many references that discuss this learning system and one of the most appropriate ways/methods in supporting this learning system is to apply a method known as PjBL (Project Based Learning) (Apiati et al., 2024; Trimawati et al., 2020).

PjBL is a learning method that provides opportunities for students to carry out an independent project by applying 21st Century knowledge and competencies/skills such as the ability to work in a team (collaboration), critical thinking and problem solving skills, written and verbal communication skills (communication), and initiative or creative thinking (creative thinking) (Alhaddad et al., 2015; Cansoy & Turkoglu, 2017; Djasuli et al., 2017; Dwyer et al., 2017). By applying this method to MICE (Meeting, Incentive, Convention and Exhibition) and Shorship & Bidding courses, students are developing 21st Century skills in achieving learning outcomes so that the quality of students in understanding learning becomes better. Although PjBL is not new in the teaching and learning system and process, through this study, the stages in the PjBL method are designed to be simpler to be easier to apply by both lecturers and students. The PjBL method in this study consists of 5 (five) stages, namely: Problem to be solved, Ideas/ brainstorming, Prior knowledge to guide, Inquiry & Investigation, and Presentation & Feedback.

The project that students will work on in this study is first framed by meaningful problems that will arise in various questions (Problem to be solved). The existing problems will bring students into ideas, thoughts, or ideas for problem solving (Ideas/brainstorming). The creative ideas raised by students will be used as the basis for making project designs based on the knowledge and skills that students have (Prior knowledge) (Boya-Lara et al., 2023; Darwin Witarsa et al., 2024; Kachepa & Jere, 2014). The project design should begin with conducting an investigation first to find answers to each existing problem so that the project can be completed in the right way (Inquiry & Investigation). Everything has been done according to its stages and the project has been executed as it should, so the last stage that needs to be done is Presentation & Feedback (Candiotto et al., 2023; van Garderen et al., 2018). In this stage, students are given the opportunity to reflect on themselves by sharing the things they have gained/learned during the project. This stage makes students realize every weakness and strength they have so that they can make it a meaningful lesson/experience to do something more challenging in the next project. In addition to students reflecting on themselves, lecturers also provide feedback from what they assessed during the project. This is an evaluation stage that will improve the project-based learning system.

As a professional researcher, this article fills the research gap in the study of Project Based Learning (PjBL) which has been more focused on exact fields or technology, while its application in the development of 21st century skills in students in the field of cultural tourism is still relatively limited. Most previous studies have emphasized the cognitive and project completion aspects alone, without highlighting in depth the internalization process of skills such as creativity, collaboration, critical thinking, and communication in highly contextual contexts such as culture and tourism. Therefore, the main scientific contribution of this article is to develop and examine the application of real problem-based PjBL in the cultural tourism environment to shape 21st century skills holistically. This research

also offers differentiation through the integration of more systematic stages of PjBL, starting from the identification of real problems, the exploration of ideas based on students' initial knowledge, the stages of investigation, to presentations and reflections oriented towards formative feedback. This approach emphasizes not only on project outcomes, but also on reflective learning processes and strengthening authentic learning experiences relevant to the world of tourism work. Thus, this article enriches the study of PjBL with a new context as well as a more comprehensive and transformative pedagogical approach to 21st century skills development in tourism vocational education.

Through all these stages, students are taken into account their performance and very well build student mentality to further improve their skills so as to achieve success in every activity carried out. All things needed to improve 21st Century skills are contained in the PjBL (Project Based Learning) Method and this method will be applied to project-based courses and will be proven through research entitled: "Project Based Learning (PjBL) in Developing 21st Century Skills through Mice Courses (Meeting, Incentive, Convention and Exhibition, Case Study: Tourism Students of the Tarutung State Christian Religious Institute).

Throughout all stages of Project-Based Learning (PjBL), student performance is taken into account comprehensively so as to form a strong learning mentality to continuously improve their skills in order to achieve success in every activity. All components needed to develop 21st-century skills are reflected in the PjBL method, which is applied contextually in project-based courses. This method is designed to foster students' creativity, collaboration, communication, and critical thinking in facing real problems in the tourism sector, especially in the context of MICE (Meeting, Incentive, Convention, and Exhibition). Therefore, this study aims to analyze the effectiveness of Project-Based Learning (PjBL) in developing students' 21st-century skills through MICE courses in the Tourism Study Program at the Tarutung State Christian Institute.

2. METHODS

This study uses a qualitative approach with a case study design, which aims to analyze the implementation of Project-Based Learning (PjBL) in 21st century skills development from research Namli & Aybek (2022) dan Tang et al. (2019) through MICE (Meeting, Incentive, Convention, and Exhibition) courses for students of the Cultural and Religious Tourism Study Program at the Tarutung State Christian Religious Institute. The research subjects totaled 37 sixth-semester students in the 2022/2023 academic year, who were selected using purposive sampling techniques based on their active involvement in MICE projects.

The types of data collected consist of primary and secondary data (Santoso et al., 2022). Primary data was obtained through questionnaires and interviews, while secondary data was obtained from learning documents, journals, and related literature sources (Morgan et al., 2017). The questionnaire used has been validated by content experts and is designed to measure student satisfaction with the implementation of PjBL and the use of institutional e-learning media. In addition, semi-structured interviews were conducted with five key informants, namely lecturers in charge of the course and students actively involved in the project, with a duration of 30–45 minutes in May 2023. The data analysis technique used is qualitative content analysis which is carried out through the stage of identifying the type of project, classification of content (facts, processes, procedures, principles, and concepts), thematic coding, and interpretation of the meaning of textual data (Nese & Lai, 2012). This analysis is also strengthened by triangulating data through focus group discussions to ensure the validity of findings and explore the patterns of 21st century skill development of students during the project-based learning process.

3. FINDINGS AND DISCUSSION

Findings
Critical Thinking Skills

In the lecture, Project based learning applied to MICE courses also helps students in critical thinking. Students are currently required to have critical thinking skills as a provision to build superior and highly competitive human resources, From the data obtained by the researcher that there are 50.5% of students who can solve problems in event activities, so the results of this research are quite significant because this is the first event for their semester, so the problems they face are still new, However, it can be concluded that this PJBL will later have an impact on their daily lives in finding problem solving in the future. 56.8% of students agree that in Project Based Learning they gain new knowledge, from the data it is concluded that PJBL has a significant impactpositive to provide critical thinking so that they are able to see from a new perspective, considering that students who take part in MICE events have also never practiced outside of theory courses, this new knowledge is able to teach students more varied in the process of critical thinking in the future, 51.4% of students get good grades after studying MICE courses, this data is significant datapositive because it represents a lot of new information and understands a problem well so that they can make wise decisions that they get from Project Based Learning so that it also affects other courses.

Critical thinking is the ability to analyze information in depth, evaluate arguments, and make logical and thoughtful decisions. In the context of project-based learning in MICE courses, these skills are measured through indicators of problem-solving ability, generating solutions, evaluating ideas, and having the courage to express opinions. Quantitatively, it was found that 50.5% of students were able to solve problems that arose in event activities, even though they were carrying out a similar project for the first time. As many as 58.6% of students are also able to provide solutions to various existing challenges, and 53.2% of students are able to come up with new ways that are different from their peers. In addition, 54.1% of students feel motivated to express their opinions in the project planning process. This finding was reinforced by the statement of one of the students: *"At first I was afraid to express my opinion, but after several discussions in the team and with the support of the lecturers, I began to dare to provide my own solution."* This data shows that the PjBL approach is effective in facilitating the growth of critical thinking skills gradually and contextually.

58.6% of students can provide solutions to problems that exist in MICE, this data is quite significant positive for MICE students, considering the complexity of the problems that exist in the practice of Project Based Learning that they do, the solutions they provide are sometimes still far from their main skills, but from the increasing number of Project Based Learning what they do in the future will encourage their curiosity to find the best solution in each Project Based Learning for MICE courses, so that they are able to find their own interests and creativity to evaluate the incoming information so that students get the best solution from each experience. 62.2% of students feel happy when lecturers are involved in MICE activities. Critical thinking makes students able to look at things from various sides so that they seem to want to put more effort into this Based Learning Project, the data above is very significant positive for this Based Learning Project will continue to be in demand by students so that students feel happy when involved by lecturers, so that they are able to influence students to be active directly in thinking critical and also able to encourage students who have a desire to learn to feel involved in this project (Doleck et al., 2017; Widiya & Radia, 2023).

54.1% of students feel motivated to express their opinions on the MICE project formation plan , this data shows that students significantly gain courage in expressing their opinions, this process is very positive in the critical thinking process so that it allows students to be able to evaluate the root of the problem and come up with solutions, not only generating ideas, this process also allows students to evaluate new ideas obtained, select, and modify these ideas with their better ideas in meetings, based on deliberation, so that this Project Based Learning is able to produce students who are more motivated and responsible for the ideas they put forward. 51.4% of students are more motivated to study in groups because it helps solve problems, This data is a significant positive data in critical thinking, the difficulty

of students who do not think critically, they will think more selfishly and expect only their ideas to be heard, so they will be too rigid in thinking and getting opinions or ideas from others (Aizikovitsh-Udi & Radakovic, 2012; Akgun & Duruk, 2016). It makes students inflexible in group work and difficult to find the best solution because it is always contrary to the perception of other students.

53.2% of students were able to produce new ways that were different from other friends, the results of the data were quite significantly positive, in the process of critical thinking requires students to be able to solve problems, analyze risks, analyze data, command friends and become leaders in teamwork, so that Project Based Learning This is said to be able to provide the main step for students in forming leadership in themselves, making themselves different so that they are able to become trendsetters for other friends to do according to their directions. 53.2% of students are able to answer questions by lecturers in class, Project Based Learning is also able to increase students' knowledge in thinking logically, so that students are able to protect yourself from false information and not be easily deceived by hoaxes from the wrong sources.

Students are able to make better decisions and more easily convince someone through arguments. Through the data above, it can be concluded that Project Based Learning has a significant positive effect on the process of critical thinking in the teaching and learning process, students are able to have the analytical skills they get during project Based Learning, thus helping students in the classroom by analyzing information and drawing more objective conclusions.

Creative Thinking Skills

In Project-Based Learning-based lectures applied to MICE courses, namely through event activities, students are faced with various challenges according to the needs of the times and crowded imaginations. Based on the instruments filled by students, it was obtained that the event made students think creatively. The preparation stage for the student event has been included for the meeting and provided various inputs such as in the formation of the event committee, the event theme, the type of event activity and looking for sponsors and all students gave different opinions and provided ideas that were in accordance with the event activities. Students are also divided into various divisions that are responsible for each division and provide ideas and input on the activities of their respective divisions.

Creative thinking refers to the ability to generate new, imaginative, and innovative ideas that are relevant to the problems at hand. In this study, the indicators of creative thinking include the ability to spark unique ideas, design innovative solutions, and adapt to new challenges. Quantitative results showed that 64.9% of students felt that event activities helped improve their ability to spark creative ideas, while 70.3% agreed that MICE projects made them think outside conventional boundaries. As many as 56.8% feel encouraged to innovate when facing challenges in projects. One of the students stated: *"We were given the freedom to choose the theme of the event and the type of activity, so I felt challenged to come up with a unique concept so that it wasn't like a regular event."* This statement corroborates that the PjBL approach opens up space for the exploration of ideas and encourages students to develop their creative potential directly through real activities.

The following is an explanation of the creative thinking skills that are almost carried out by each student during the Event based on the data obtained. From the students' answers, data was obtained that each student (62.2%) played a role as a performer in MICE events to encourage creative thinking. Every student (64.9%) improves students' ability to generate creative ideas. Every College Student (70.3%) agrees that MICE events can help them think outside conventional boundaries. Every student (56.8%) felt that MICE events encouraged them to look at challenges and innovate in every MICE activity. Students feel that MICE events provide an opportunity for them to collaborate with people with different backgrounds and ideas. Students feel that MICE events can motivate them to develop creative solutions to problems faced in the tourism industry. Student participation in MICE events provides students with the opportunity to apply their knowledge and creative skills in real-world

situations. Students (56.8%) feel that MICE activities can train their ability to find new ideas. Students (59.5%) feel that MICE events provide an effective space to experiment with new and innovative ideas.

So it can be concluded that the event helps students think creatively. Only a few students (5%) gave negative answers about their experience working on the event. And this category of students has the opposite opinion about creative thinking. Creative thinking for them results in difficulty solving problems, slowing down the achievement of goals, obstacles to opportunities to progress, no need to offer solutions (Krathwohl, 2001; Dwi Herdani & Ratu, 2018; Trimawati et al., 2020).

Communication Skills.

Communication skills are one of several important 21st century skills to master. These skills include the ability to speak, listen, write, and read well and effectively. Communication skills also include the ability to communicate persuasively, build good relationships with others, and adapt to a variety of different communication situations (Rafli et al., 2018; Khan et al., 2017). Communication plays a very important role in the success of an event. In the context of an event, communication involves the exchange of information, ideas, and objectives between all parties involved, including organizers, participants, sponsors, partners, and other related parties.

Communication is the ability to convey and receive information effectively, both verbally and in writing, in a variety of contexts. Measured indicators include the ability to speak in public, convey ideas, receive feedback, and establish relationships with others. Quantitatively, 83.8% of students are well aware of the importance of communication skills in today's era, and 70.3% stated that MICE courses help them improve *their public speaking* skills. In addition, 67.6% felt helped in preparing for the world of work, and 62.2% stated that PjBL encouraged them to learn contextual communication. One of the student quotes stated: *"During the presentation of the event, I learned how to convey ideas confidently and deal with questions from the audience calmly."* These findings suggest that learning through real projects provides an authentic experience that strengthens students' communication competencies.

First of all, effective communication allows event organizers to communicate their vision and goals to all parties involved. This ensures that all stakeholders have a clear understanding of what the event is trying to achieve. Open and transparent communication also allows organizers to receive input and feedback from other parties, which can help improve event planning and execution. In addition, effective communication plays an important role in promoting events to potential attendees. By using various communication channels, such as social media, websites, emails, and promotional materials, organizers can convey information about the event, invite people to participate, and build enthusiasm around the event.

Timely and targeted communication ensures that attendees have access to the latest information about the schedule, venue, speakers, and activities that will take place during the event. During the event, effective communication is essential to maintain a smooth flow of communication between the organizers, participants, and other parties involved (Choi et al., 2017; D. R. Saxena et al., 2022). This includes delivering instructions and guidance to participants, resolving questions or issues that arise, and coordinating and synchronizing all activities that occur during the event. Effective communication also allows organizers to provide important information in real-time, such as schedule changes, location changes, or other important announcements that may affect attendees.

Finally, effective communication is also important after the event is over. In an effort to build sustainable relationships with participants and other stakeholders, organizers should communicate their appreciation for the participation and support provided. Feedback from participants can also be collected through surveys or interviews, which can then be used to improve the planning and execution of future events. Overall, effective communication is indispensable in an event. At every stage, from planning to implementation and follow-up, good communication facilitates understanding, cooperation, and overall event success. From the data we obtained in the form of a questionnaire that has been distributed to our informants, namely IAKN Tarutung students in the 6th semester with the form of a likert scale who in their assessment strongly agree is a value of 5, agree is worth 4, neutral is

worth 3, disagree is worth 2, and strongly disagree is worth 1. It can be concluded that the average answer from students shows that the PjBL Method in MICE courses is able to improve their communication skills. 83.8% of students strongly agree that in today's era, communication skills are very much needed, good communication skills help students in interacting well with lecturers, classmates, and other parties involved in the academic environment. In addition, strong communication skills also allow students to clearly and persuasively convey their ideas in presentations, group discussions, or written reports. In an increasingly competitive world of work, students with good communication skills have an advantage in building effective working relationships, leading teams, and influencing others in a positive way (Azizah et al., 2025). Therefore, students are well aware of the importance of developing strong communication skills to achieve success in the future. From the data, it is concluded that PJBL is one of the methods or forums in developing communication skills.

62.2% of students strongly agree that PjBL is an effective learning method in improving communication skills, PjBL involves students in real-life projects (creating events) that encourage teamwork, problem solving, and presentation of work results. In this process, students must actively communicate with team members, collaborate, and communicate their ideas clearly to their intended audience. Through PjBL, students learn to communicate effectively in a real context, which involves sharing ideas, exchanging information, and presenting solutions to relevant stakeholders (Howland & Good, 2015). By practicing in a similar situation to the world of work, students develop strong oral and written communication skills, the ability to craft structured arguments, and the confidence to deliver convincing presentations. Students' awareness of the effectiveness of PjBL in improving communication skills is a reflection of their recognition of the importance of such skills to succeed in their personal and professional lives in the future. 70.3% of students strongly agree that MICE Courses help students in developing public speaking skills, in the context of MICE, students will learn about planning, executing, and managing events that involve a wide audience. In the process, they are taught effective communication techniques to speak in public and deliver compelling presentations. Students will be given the opportunity to design and deliver presentations, whether in the form of speeches, slide presentations, or practical presentations, which require public speaking skills. They will learn about sound regulation, proper intonation, attention-grabbing body movements, and how to convey messages clearly and convincingly.

In addition, in the MICE Course, students will also learn persuasive techniques, strategies for interaction with the audience, and how to deal with anxiety or tension when speaking in public. They will be given the opportunity to practice in simulated situations and get constructive feedback from lecturers and fellow students. MICE courses assist students in acquiring public speaking skills that are important in many aspects of life, including the professional world. This ability will be useful for them in conducting lecture hall presentations, group discussions, and in their future careers when they must communicate with diverse audiences. By going through the MICE Course, students have the opportunity to develop confidence and public speaking proficiency which will be a valuable asset in their academic and professional journey. 67.6% of students strongly agree that through MICE courses students feel helped in preparing themselves to work in the MICE industry, this course provides an in-depth understanding of the MICE industry, including planning, management, and execution of events involving meetings, incentives, conferences, and exhibitions. In the MICE course, students will learn about various aspects related to the industry, including the process of planning and organizing events, budget management, negotiations with suppliers and clients, and event marketing and promotion. They will be taught how to identify client needs and goals, design creative event programs, and manage logistical aspects, such as venues, transportation, and accommodation. In addition, students will gain knowledge about the latest developments in the MICE industry, trends, and technologies used in the implementation of events. They will also learn about sustainability and social responsibility factors in MICE events. MICE courses also provide opportunities for students to participate in practical projects or internships in the MICE industry.

This allows them to gain hands-on experience in organizing events, working with teams, and interacting with clients and event attendees. Thus, MICE Courses help students to acquire the knowledge, skills, and perspectives necessary to succeed in the MICE industry. They will be able to apply the theoretical and practical understanding they gain during these courses in an actual work environment. This course provides a strong foundation for students who dream of working in the MICE industry, preparing them with a comprehensive understanding and relevant skills in facing future challenges and opportunities. 64.9% of students strongly agree that MICE Courses help students in developing effective communication skills in teams, In the MICE industry, teamwork is key in planning and executing successful events. In the MICE Course, students will learn about teamwork dynamics, collaboration, and effective communication between team members. They will be given the opportunity to work in simulation teams or real projects involving MICE event planning. Students will learn how to communicate effectively with team members, share ideas, resolve conflicts, and make decisions together. They will learn to use communication tools such as email, instant messaging, and online collaboration platforms to communicate and share information with teams.

In addition, in the MICE Course, students will also be taught strong presentation skills to convey ideas and reports to the team. They will learn persuasive communication techniques, how to structure structured presentations, and tactics to defend their opinions with strong arguments. Through the MICE Course, students will experience communication challenges that often occur in the context of teamwork, such as differences of opinion, effective dissemination of information, and conflict management. This will help them develop effective communication skills, interpersonal sensitivity, and the ability to work with diverse individuals in a team environment. Thus, MICE Courses provide opportunities for students to hone their communication skills in the context of specific teamwork in the MICE industry. These skills are essential in building good working relationships, increasing team productivity, and achieving success in event planning and execution.

70.3% of students strongly agree that MICE courses help students in developing skills in building good relationships with clients or business partners/other people, In the MICE industry, good relationships with clients and partners are key to achieving the success of the event. In the MICE Course, students will learn effective communication strategies and interpersonal skills in interacting with clients or business partners. They will learn about customer relationship management, negotiation, and good expectation management (Bao, 2020; Kholid et al., 2020). Students will be taught how to listen with empathy, understand the needs of clients or business partners, and convey messages clearly and persuasively. They will also learn how to build trust and maintain long-term relationships with clients or business partners through effective communication. In addition, students will be given the opportunity to participate in simulations or case studies that involve the role of event managers or company representatives in interacting with clients. It assists them in honing presentation, negotiation, and problem-solving skills to meet the needs of clients or business partners. Through the MICE Course, students will learn how to build mutually beneficial relationships and build strong networks with clients, business partners, and others involved in the MICE industry. These skills will help students in facing challenges in the world of work, expanding career opportunities, and achieving success in interacting with people in a business environment. 62.2% of students strongly agree that PjBL makes students more motivated to learn about communication skills, In PjBL, students engage in real projects that encourage them to learn and develop communication skills in relevant contexts. In PjBL, students have the opportunity to apply communication skills practically in situations similar to the real world. They engage in collaboration with team members, communicate with stakeholders, and deliver presentations or reports on their work. Through PjBL, students realize that good communication skills play a crucial role in the success of their projects. They realize that the ability to communicate ideas clearly, listen effectively, and collaborate with team members is an important factor in achieving project goals.

In addition, PjBL provides relevant context and clear goals for students in developing communication skills. They see the immediate value and benefits of strong communication skills in

achieving project success and solving problems well. With high motivation, students feel encouraged to hone their communication skills and engage in learning activities that focus on communication aspects (Abbas et al., 2023; Ryan & Deci, 2020). They become more proactive in looking for opportunities to practice public speaking, discuss in groups, or improve their writing skills. Overall, PjBL provides a meaningful and motivating learning context for students to focus on developing communication skills. They see the immediate value of the skill in the context of a real project, and this encourages them to become more involved and motivated in learning communication skills. 62.2% of students strongly agree that MICE helps students in developing the skills to lead productive discussions and meetings, In the MICE environment, students are taught how to effectively lead discussions and meetings to achieve their desired goals. In the MICE Course, students will learn strategies for leading inclusive discussions, managing time, and facilitating the active participation of team members or meeting participants. They will be taught how to steer discussions to stay focused, encourage collaboration, and reach a satisfying agreement. In addition, students will also learn meeting management techniques, such as setting an effective agenda, leading decisively, and ensuring that decisions and actions taken are well recorded. They will learn about active listening skills, ask relevant questions, and handle conflicts or differences of opinion that may arise in discussions or meetings.

MICE gives students the opportunity to practice leading discussions and meetings through simulations or practical projects. In this context, they can apply their leadership skills, identify meeting needs and goals, and create an environment that supports collaboration and problem-solving. Through practical experience and knowledge gained from MICE Courses, students become more confident in leading discussions and meetings. They develop strong verbal and nonverbal communication skills, the ability to convey messages clearly, as well as skills in reading and managing group dynamics. Overall, MICE assists students in developing the skills to lead productive discussions and meetings. In the context of the MICE industry, these skills are invaluable in ensuring smooth communication, achieving good decisions, and achieving set goals. 56.8% of students strongly agree that MICE helps students develop skills in adapting to different audiences, In the MICE industry, students will learn how to communicate effectively with different types of audiences including clients, event attendees, stakeholders, and business partners. In the MICE Course, students will learn communication strategies and techniques that suit diverse audiences. They will be taught to identify the needs and preferences of the audience, as well as understand the cultural, social, or industry context in communicating with them. Students will learn how to adapt their communication styles, both verbal and written, to suit different audiences. They will learn the proper use of language, the appropriate level of formality, and how to convey the message in a way that can be understood by a diverse audience. In addition, through projects and simulations in the MICE Course, students will be given the opportunity to practice communicating with different types of audiences.

This helps them develop adaptability and flexibility in communicating, as well as increase their sensitivity to the needs and expectations of different audiences. By mastering the skills of adapting to different audiences, students will become more effective and skilled communicators (Ball & Vincent, 2020). They will be able to interact with people from different backgrounds, build good relationships, and deliver messages with greater impact. Overall, MICE helps students develop skills in adapting to different audiences. These skills are key in achieving effective communication in the context of the MICE industry involving diverse stakeholders and audiences. 54.1% of college students strongly agree with the statement I can develop communication skills to give and receive feedback well, They recognize the importance of effective communication skills and the ability to give and receive feedback well. Students recognize that developing good communication skills allows them to convey a clear, persuasive, and structured message to others. They realize that good communication skills help in various aspects of life, including in academic, professional, and social settings.

In addition, students also agree that the ability to provide constructive feedback and receive feedback well is an important skill in personal growth and development. By receiving feedback openly, they can identify areas of self-development, correct weaknesses, and reinforce strengths in their

communication. Students also realize that giving good feedback to others is an effective way to strengthen relationships and improve collaboration. By providing clear, constructive, and empathetic feedback, they can assist others in developing their own communication skills. Students' awareness and acceptance of the importance of developing communication skills and the ability to give and receive feedback well reflects their commitment to improving themselves personally and academically (AR, 2021). They realize that these skills not only affect their interactions with others, but also impact their success in their careers and overall lives.

Through the data above, it can be concluded that through real projects in MICE, students are given the opportunity to interact with team members, event participants, and other stakeholders. In this context, they learn to communicate effectively, both verbally and in writing, in a variety of situations. PjBL allows students to hone their communication skills in collaborating with teams, presenting to audiences, and interacting with clients or business partners. They learn to convey ideas clearly, listen with empathy, and communicate well in situations similar to the real world. In addition, PjBL in MICE also encourages students to receive and provide feedback. Through reflection and project evaluation, they learn to provide constructive feedback to fellow teams or event participants. It helps in developing better communication skills. MICE courses with the PjBL method provide an engaged and contextual learning experience for students (Chen et al., 2015; Jang et al., 2020). Through projects that demand active communication and interaction with various related parties, students can develop their communication skills thoroughly. Thus, MICE through the PjBL method plays an important role in developing students' communication skills. They can hone effective communication skills, collaborate with teams, and interact with various related parties in the context of a real MICE industry.

Collaboration Capabilities

In every process of working on the Event, students are often faced with various problems. From the students' answers, data was obtained that the event made students have collaboration skills. Because from the preparation stage to the implementation of the Event, students spend more time communicating with their divisional teams working together to share ideas, knowledge, and skills/expertise with other students to solve various problems faced. The following is an explanation of the collaboration skills that almost every student has during the Event based on the data obtained.

From the students' answers, data was obtained that each student (54.1%) participated through sharing ideas, offering suggestions, and helping with existing work. Each student (51.4%) also agreed to listen to others and keep an open mind to ideas and suggestions, with the goal of achieving group goals. Every student (54.1%) helps build ideas and make them better by asking questions, solving problems, and working together. Every student (56.8%) also admitted that all ideas can be improved and that constructive criticism is about the idea and not about the person who suggested it.

Collaboration refers to the ability to work together in a team to achieve a common goal by respecting the ideas and contributions of other members. Indicators of these skills include sharing ideas, listening to others, providing constructive feedback, and building ideas together. Quantitative data shows that 54.1% of students are actively involved in sharing ideas and helping with teamwork, 51.4% listen to their friends' opinions and are open-minded, and 56.8% state that they are used to improving ideas with constructive criticism. One informant said: *"We often had different opinions, but I learned that other people's ideas can also strengthen my own if they are developed together."* These findings confirm that the collaboration formed in the PjBL project not only increases the effectiveness of teamwork, but also strengthens students' interpersonal skills in facing real work challenges.

Discussion

The main findings in this study show that the application of Project-Based Learning (PjBL) in the context of MICE courses has a significant impact on improving students' various 21st century skills, especially in terms of communication, collaboration, critical thinking, problem-solving, creativity, and independence. The improvement of communication and collaboration skills, for example, is not only

because students work in groups, but because they are directly involved in the dynamics of planning and executing real projects that require task sharing, intensive discussions, negotiations, and conflict resolution. In MICE projects such as the implementation of the event at Sopo Partungkoan, students not only run simulation scenarios, but face authentic challenges, such as coordination with external parties and limited resources, which naturally demand more mature interpersonal communication skills.

Critical thinking and problem-solving skills increase because students are faced with complex and real situations that do not have a single answer. They must evaluate many alternatives, consider risks, make data-driven decisions and develop innovative solutions as per the needs of the tourism industry. In the context of MICE, the project is designed to be open-ended and contains many variables such as logistics, budget, and visitor experience, thus encouraging students to analyze information in depth and make informed decisions. Meanwhile, creativity grows along with the space and drive to design event concepts that are unique and relevant to the local cultural context, which triggers students to think outside of conventional patterns.

Self-reliance skills develop as students are given full responsibility for their project management. This process requires students to manage time, create schedules, allocate resources, and complete assignments without direct supervision from lecturers. It is an authentic experience that prepares students for the world of work, where decision-making and personal initiative are needed. Overall, these results show that PjBL not only improves students' cognitive and social competence, but also forms a professional mentality that is ready to face real challenges in the tourism industry, especially in the context of MICE management.

Only a few students (5%) responded negatively about their experience working on the event. And this category of students has the opposite opinion about collaboration. Collaboration (teamwork) for them results in quarrels, heartache, lack of equal contribution, and loss of the essence of learning itself. In addition to the data obtained from the questionnaire, data was also obtained from interviews with students. Based on the results of the interviews, information was obtained that students' collaboration and communication skills developed.

As Milka says that:

"Students work in groups to complete projects or assignments Students also communicate effectively and share ideas with other group members. This is what helps improve students' collaboration and communication skills". (Milka/ Individual Interview/ June 2023)

But it's not just that skill,

Students also feel that problem-solving skills are also developing. PJBL often involves solving problems that are fairly complex. Here, students face real challenges that require creative thinking and can make good decisions.

In line with this, David Sinaga argues that:

"The skill that also develops is the critical thinking skill. PJBL encourages students to think critically in completing their assignments. Students learn to evaluate information, analyze data and develop arguments based on evidence of critical thinking skills. This is important in dealing with complex challenges in the tourism industry and in making informed decisions. And the last one is creativity skills. Students are given the opportunity to use their creativity in designing solutions, making presentations and presenting new ideas". (David Sinaga/ Individual Interview/ June 2023)

Students' responses to the use of the PJBL method vary, but one thing that students emphasize is that they are actively involved and have a more meaningful learning experience. As expressed by Lastiarna:

"So these students have the opportunity to be active in looking for information, working on projects or assignments by collaborating with their group friends. Well, this can increase student motivation to learn as well". (Lastiarna/ Individual Interview/ June 2023)

In addition, through the PJBL method, independence is also formed.

The yogi said that:

"This method encourages students to take responsibility for their own learning. They need to manage time managing resources and take the initiative in solving problems. This helps them develop independent skills both in the work they are doing and in their daily lives". (Yogi/ Individual Interview/ June 2023)

All students agree that learning through PJBL is more fun than other components of the curriculum. However, the project that is designed or worked on must be a project that is relevant to the student study program that is working on it. For example, in the Cultural and Religious Tourism study program, the project designed must be able to reflect the real situation in the tourism, cultural and religious industry. That way students will feel more involved and try hard to achieve it. Relevant projects can motivate students to apply their knowledge and skills directly in the field.

As stated by Afnidar:

"Relevant projects will increase the sense of responsibility and willingness to work hard in achieving project goals, one of which is by creating teamwork/collaboration with group friends, and can feel more involved in actively contributing. Thus, students can feel the satisfaction and joy of the experience. This hands-on experience can make learning more enjoyable." (Afnidar/ Individual Interview/ June 2023)

If PJBL is implemented properly, then students will learn and practice in organizing projects, allocating time and other resources such as equipment to complete assignments. Students in this case play the role of project managers, where students need to set the necessary steps to achieve the project goals. Students will be involved in project planning including designing strategies, setting goals, identifying tasks that need to be completed and allocating time for each stage. Students will also learn about budget risk management and the resources needed to complete the project successfully. In addition, students will learn in work team organization, delegating tasks and collaborating with team members in achieving common goals. They will learn the importance of effective communication, negotiation and problem-solving in the context of group work.

From the results of the interviews, students stated that PJBL provides a learning experience that engages students in complex challenges and situations designed to reflect the real world. This method aims to connect learning with real context and prepare students to face tasks and problems that they will encounter in the real world. Students will engage in projects that reflect real and relevant situations or issues within their field of study. They will be faced with complex tasks that require critical thinking, analysis and problem-solving these projects often include practical aspects such as planning, implementation and also evaluation. Through this learning experience, students can develop a deeper understanding of the subject matter and relate it to real situations, which ultimately helps students develop the social and professional skills needed to interact and contribute in the real world (Jang et al., 2020; Ahmad et al., 2021; Akbar & Awalludin, 2020; Maharani et al., 2021).

From each answer, students have shown that PJBL is a method with many benefits. Even with this PJBL, students admitted that they became more critical to analyze the situation and formulate innovative solutions. In solving problems, evaluating information and making the right decisions, students often conduct in-depth analysis in order to obtain problem solving.

Respondents' Responses Regarding the Implementation of MICE Management (Event) at Sopo Partungkoan Tarutung North Tapanuli.

Can be described as follows: Overall, it can be concluded that the implementation of MICE Management is based on management functions, namely planning, organizing, directing and supervision. The total responses given by respondents with a total of 128 responses accumulated. Responses with the category strongly agree amounted to 31 or 24.21%, the category of agree amounted to 78 or 69.37%. The category of disagreement amounted to 12 or 9.37%, the category of disagreement amounted to 1 or 0.78% and strongly disagreed amounted to 0%. So it can be concluded that the implementation of MICE management carried out by the Pangeran Pekanbaru hotel is because of the 8

respondents who have an accumulated number of responses of 128 responses, respondents gave more responses to the agree category compared to the other categories, which reached 78 or 69.37%.

4. CONCLUSION

Based on the research findings, it can be synthesized that the implementation of the Project-Based Learning (PjBL) model in the MICE (Meeting, Incentive, Convention, and Exhibition) course has significantly encouraged the development of students' 21st-century skills, especially in the aspects of communication, collaboration, problem-solving, critical thinking, creativity, and independence. Through direct involvement in real projects relevant to the tourism sector, students not only experience a meaningful learning process but also gain contextual experiences that foster managerial skills, teamwork, and self-reflection. The practical implications of these findings indicate that PjBL can be widely adopted in tourism study programs to develop students' readiness to face the challenges of a complex and dynamic world of work. For further research, it is recommended that the PjBL approach be applied to other courses in the tourism field or even across disciplines, and further explore its influence on other soft skills such as empathy, leadership, and digital literacy.

REFERENCES

Abbas, S. A., Kusumawardani, Z. H. N., Suprayitno, N. F., & Jafar, N. (2023). Driving Factors of Motivation and Its Contribution to Enhance Performance. *Innovative: Journal Of Social Science Research*, *3*(2), Article 2.

Ahmad, H., Syamsuddin, Febryanti, & Latif, A. (2021). Development of student worksheets assisted by GeoGebra application in improving higher-order thinking ability in mathematics learning. *Journal of Physics: Conference Series*, *1882*(1), 1–8. https://doi.org/10.1088/1742-6596/1882/1/012048

Aizikovitsh-Udi, E., & Radakovic, N. (2012). Teaching Probability by Using Geogebra Dynamic Tool and Implemanting Critical Thinking Skills. *Procedia - Social and Behavioral Sciences*, *46*(Galotti 1989), 4943–4947. https://doi.org/10.1016/j.sbspro.2012.06.364

Akbar, Z., & Awalludin. (2020). *Motoric Stimulation on Early Childhood Development*. 88–92. https://doi.org/10.2991/assehr.k.201027.019

Akgun, A., & Duruk, U. (2016). The Investigation of Preservice Science Teachers' Critical Thinking Dispositions in the Context of Personal and Social Factors. *Science Education International*, *27*(1), 3–15.

Alhaddad, I., Kusumah, Y. S., Sabandar, J., & Dahlan, J. A. (2015). Enhancing Students' Communication Skills Through. *Journal on Mathematics Education*, *6*(1), 31–39.

Apiati, V., Heryani, Y., Hermanto, R., & Muzdalipah, I. (2024). Pelatihan Pengembangan Perangkat Pembelajaran Berbasis Kurikulum Merdeka melalui Model PjBL pada Guru MGMP SMA se-Kota Tasikmalaya. *Catimore: Jurnal Pengabdian Kepada Masyarakat*, *3*(1), 85–92. https://doi.org/10.56921/cpkm.v3i1.158

AR, M. Y. (2021). STRATEGI KOMUNIKASI POLITIK PASANGAN "SAYANG" (STUDI KASUS PILGUB SULSEL 2007). *OSF Preprints*. https://doi.org/10.31219/osf.io/tpv4x

Azizah, A. R., -, H., & Hidayat, M. W. (2025). ANALISIS IKLAN PINJAMAN ONLINE DALAM MEMPENGARUHI POLA PIKIR KONSUMEN. *Nubuwwah : Journal of Communication and Islamic Broadcasting*, *3*(01), 16–31. https://doi.org/10.21093/nubuwwah.v3i01.8106

Ball, B., & Vincent, V. (2020). Karakteristik Komunikator yang Efektif dalam Komunikasi Antar Pribadi. *Jurnal Komunikasi Islam dan Kehumasan (JKPI)*, *4*(2), 69–95. https://doi.org/10.19109/jkpi.v4i2.7315

Bao, W. (2020). COVID -19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, *2*(2), 113–115. https://doi.org/10.1002/hbe2.191

Boya-Lara, C., Diaz-Solano, D., & Fehrenbach, A. (2023). Educational robotics to enhance knowledge and skills in higher education: A systematic review. *2023 VI Congreso Internacional En Inteligencia Ambiental, Ingeniería de Software y Salud Electrónica y Móvil (AmITIC)*, 1–6. https://doi.org/10.1109/amitic60194.2023.10366359

Candiotto, L. S., De Assis, M. V. O., Schreiner, M. A., Fioravanti, M. L., Barbosa, E. F., & Marcolino, A. S. (2023). A Lightweight Web Tool to Support Feedback in Introductory Programming Practices in Brazilian Undergraduate Disciplines. *2023 IEEE Frontiers in Education Conference (FIE)*, 1–9. https://doi.org/10.1109/fie58773.2023.10343349

Cansoy, R., & Turkoglu, M. E. (2017). Examining the Relationship between Pre-Service Teachers' Critical Thinking Disposition, Problem Solving Skills and Teacher Self-Efficacy. *International Education Studies*, *10*(6), 23. https://doi.org/10.5539/ies.v10n6p23

Chen, K. L., Liu, S. Y., & Chen, P. H. (2015). Assessing multidimensional energy literacy of secondary students using contextualized assessment. *International Journal of Environmental and Science Education*, *10*(2), 201–218. https://doi.org/10.12973/ijese.2015.241a

Choi, J., Lee, Y., & Lee, E. (2017). Puzzle Based Algortihm Learning for Cultivating Computational Thinking. *Wireless Personal Communications*, *93*(1), 131–145. https://doi.org/10.1007/s11277-016-3679-9

D. R. Saxena, N. J. Tupkar, & S. S. Lonkar. (2022). Innovations in Current Teaching Methods: A Review Study. *International Journal of Advanced Research in Science, Communication and Technology*, 152–154. https://doi.org/10.48175/ijarsct-7433

Darwin Witarsa, Sri Karyati, & Ary Wahyudi. (2024). Implementasi Peraturan Daerah (PERDA) Provinsi Nusa Tenggara Barat Nomor 2 Tahun 2016 Tentang Pariwisata Halal Di Destinasi Pariwisata Super Prioritas Kawasan Ekonomi Khusus (KEK) Mandalika. *Unizar Recht Journal (URJ)*, *3*(2), 207–217. https://doi.org/10.36679/urj.v3i2.172

Djasuli, M., Sa, C., Parta, I. N., & Daniel, T. (2017). Students ' Reflective Abstraction in Solving Number Sequence Problems. *International Electronic Journal of Mathematics Education*, *12*(6), 621–632.

Doleck, T., Bazelais, P., Lemay, D. J., Saxena, A., & Basnet, R. B. (2017). Algorithmic thinking, cooperativity, creativity, critical thinking, and problem solving: Exploring the relationship between computational thinking skills and academic performance. *Journal of Computers in Education*, *4*(4), 355–369. https://doi.org/10.1007/s40692-017-0090-9

Dwi Herdani, P., & Ratu, N. (2018). Analisis Tingkat Kemampuan Berpikir Kreatif Matematis Siswa SMP Dalam Menyelesaikan Open – Ended Problem Pada Materi Bangun Datar Segi Empat. *JTAM | Jurnal Teori Dan Aplikasi Matematika*, *2*(1), 9. https://doi.org/10.31764/jtam.v2i1.220

Dwyer, C. P., Hogan, M. J., Harney, O. M., & Kavanagh, C. (2017). Facilitating a student-educator conceptual model of dispositions towards critical thinking through interactive management. *Education Tecnology Research*, *65*, 47–73. https://doi.org/10.1007/s11423-016-9460-7

Howland, K., & Good, J. (2015). Learning to communicate computationally with Flip: A bi-modal programming language for game creation. *Computers and Education*, *80*, 224–240. https://doi.org/10.1016/j.compedu.2014.08.014

Jang, J., Purwanto, A., Purnamasari, D., Ramdan, M., Hutagalung, L., Akuba, S. F., Sulistiyadi, A., Pramono, R., & Bernarto, I. (2020). Pendidikan Vokasi BTEC UK di Indonesia: Studi Fenomenologi Esensi Pengalaman Peserta Didik. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, *6*(1), 1. https://doi.org/10.33394/jk.v6i1.2319

Kachepa, A., & Jere, N. (2014). Implementation of Mobile Games for Mathematics Learning: A Case of Namibian Schools. *International Journal of Scientific Knowledge*, *5*(5). www.ijsk.org/ijsk

Khan, A., Khan, S., Zia-Ul-Islam, S., & Khan, M. (2017). Communication Skills of a Teacher and Its Role in the Development of the Students' Academic Success. *Journal of Education and Practice*, *8*(1), 18–21.

Kholid, M. N., Hamida, P. S., Pradana, L. N., & Maharani, S. (2020). *Students' Critical Thinking Depends On Their Cognitive Style*. *9*(01).

Krathwohl, D. R. (2001). *The Importance of Thinking Critically & Creatively Types of Thinking*. 1–22.

Krisdiana, I., Apriandi, D., & Setiansyah, R. K. (2014). ANALISIS KESULITAN YANG DIHADAPI OLEH GURU DAN PESERTA DIDIK SEKOLAH MENENGAH PERTAMA DALAM IMPLEMENTASI KURIKULUM 2013 PADA MATA PELAJARAN MATEMATIKA (Studi Kasus

Eks-Karesidenan Madiun). *JIPM (Jurnal Ilmiah Pendidikan Matematika)*, *3*(1). https://doi.org/10.25273/jipm.v3i1.492

Maharani, S., Agustina, Z. F., & Kholid, M. N. (2021). Exploring the Prospective Mathematics Teachers Computational Thinking in Solving Pattern Geometry Problem. *Al-Ishlah: Jurnal Pendidikan*, *13*(3), 1756–1767.

Morgan, S. J., Pullon, S. R. H., Macdonald, L. M., McKinlay, E. M., & Gray, B. V. (2017). Case Study Observational Research: A Framework for Conducting Case Study Research Where Observation Data Are the Focus. *Qualitative Health Research*, *27*(7), 1060–1068. https://doi.org/10.1177/1049732316649160

NAMLI, N. A., & AYBEK, B. (2022). A Content Analysis on Computational Thinking Skill. *Cukurova University Faculty of Education Journal*, *51*(2), 920–944. https://doi.org/10.14812/cuefd.943909

Nese, J. F. T., & Lai, C. (2012). Technical Report # 1320 A Primer on Longitudinal Data Analysis In Education University of Oregon University of Oregon • 175 Education 5262 University of Oregon • Eugene , OR 97403-5262. In *Behavioral Research and Teaching*.

Rafli, M. F., Syahputra, E., & Yusnadi, Y. (2018). Influence of Problem Based Learning Model and Early Mathematics Ability to Mathematical Communication Skills and Self-Confidence in Junior High School. *American Journal of Educational Research*, *6*(11), 1539–1545. https://doi.org/10.12691/education-6-11-12

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, *61*, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Santoso, S., Kusnanto, E., & Saputra, M. R. (2022). Perbandingan Metode Pengumpulan Data dalam Penelitian Kualitatif dan Kuantitatif Serta Aplikasinya dalam Penelitian Akuntansi Interpretatif. *OPTIMAL: Jurnal Ekonomi dan Manajemen*, *2*(3).

Tang, K.-Y., Chou, T.-L., & Tsai, C.-C. (2019). A Content Analysis of Computational Thinking Research: An International Publication Trends and Research Typology. *The Asia-Pacific Education Researcher*, *29*(1), 9–19. https://doi.org/10.1007/s40299-019-00442-8

Trimawati, K., Kirana, T., & Raharjo, R. (2020). Pengembangan Instrumen Penilaian IPA Terpadu dalam Pembelajaran Model Project Based Learning (PjBL) untuk Meningkatkan Kemampuan Berpikir Kritis dan Kreatif Siswa SMP. *Quantum: Jurnal Inovasi Pendidikan Sains*, *11*(1), 36. https://doi.org/10.20527/quantum.v11i1.7606

van Garderen, D., Scheuermann, A., Poch, A., & Murray, M. M. (2018). Visual Representation in Mathematics: Special Education Teachers' Knowledge and Emphasis for Instruction. *Teacher Education and Special Education*, *41*(1), 7–23. https://doi.org/10.1177/0888406416665448

Widiya, A. W., & Radia, E. H. (2023). Pengaruh Model Pembelajaran Inkuiri Terbimbing Terhadap Kemampuan Berpikir Kritis dan Hasil Belajar IPS. *Aulad: Journal on Early Childhood*, *6*(2), 127–136. https://doi.org/10.31004/aulad.v6i2.477