

## Enhancing Student Learning in Tourism Program through a Technology-Based Constructive Learning Model: The Case of Universitas Ciputra

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**ABSTRACT:** : In the wake of the Covid-19 pandemic, technology has become extensively utilized in the process of teaching and learning. To enhance the learning experience, support from various aspects is crucial, with the learning model itself being particularly important. This study focuses on the implementation of a virtual face-to-face online learning model called the 4P model, which consists of four stages: opening, deepening, implication, and reflection. The model incorporates technology in teaching and learning activities. The objective of this research is to assess the effectiveness of the 4P learning model and the use of technology in enhancing students' knowledge, skills, and attitudes during the learning process. The research methodology involved limited trials conducted with 130 students, including 77 third-semester students and 53 fifth-semester students, who were enrolled in Risk Management and Sustainable Tourism Management courses. Data collection took place at two different time points with a three-month difference. Descriptive analysis was used for data analysis. The findings of the research revealed an improvement in pre-test and post-test scores for both classes at different times, indicating that the 4P learning model successfully increased student competence and could be implemented across various courses at different times. The 4P learning model benefits students by encouraging their active participation in value creation, particularly during the implication phase. This is advantageous for the Indonesian education system, which previously relied on a one-sided method of learning where educators transferred knowledge to passive students.

**Keywords:** Technology, Learning, Online, Constructive, Tourism

### INTRODUCTION

Since the COVID-19 pandemic began, technology has become widely utilized as a primary tool for learning worldwide. In Indonesia, the Ministry of Communication and Information Technology (2021) reported a remarkable 442 percent increase in the usage of online implications, predominantly for studying, work, and accessing healthcare. The Ministry of Education, Culture, Research, and Technology (2021) revealed that an astounding 68,729,037 students in Indonesia have been engaged in remote learning through platforms like Zoom and Google Meet. Universitas Ciputra has also experienced similar circumstances, conducting all classes online for the past two years, impacting students pursuing studies in

Hotel and Tourism Business. Throughout this period, various challenges have arisen. Additionally, transferring hospitality attitude through online learning presents its own unique set of obstacles. These challenges include the lack of hands-on experience, limited access to industry facilities, difficulty in teaching service-oriented skills, the inability to observe and learn from industry professionals, limited networking and industry connections, challenges in teaching practical subjects, and adaptation to virtual guest service.

In the hospitality program, students must embody a hospitable attitude as a core value. Hospitality is an art and knowledge

encompassing respect and humanistic services for guests (Hermawan et al., 2018). On the other hand, attitude represents one's behavior in response to social objects, revealing a person's true nature. Each individual differs based on various factors such as interests, talents, experiences, knowledge, and the environmental situations they encounter (Suharyat, 2009). To effectively learn hospitality, it is essential to have experts who can transmit knowledge, attitudes, and skills (Untari et al., 2018). However, transferring attitudes through online learning presents a challenge, as it requires experiencing situations in which students can respond and engage, necessitating detailed elaboration and improvement within the online learning context.

In addressing these challenges, it is crucial to integrate practical elements into online learning through innovative solutions. However, equally important is the active participation of students throughout the learning process. Encouraging their engagement in discussions, group projects, and problem-solving activities fosters a collaborative and interactive environment. This involvement allows students to apply theoretical knowledge to real-world scenarios, improving their understanding of hospitality concepts and developing critical thinking skills. Additionally, providing opportunities for students to contribute their ideas and experiences empowers them to shape their learning journey, leading to deeper engagement and motivation and a more meaningful learning experience.

Real-time engagement and interaction are essential in online learning and hybrid classes, which can be enhanced with an effective learning model to improve student knowledge, skills, and especially hospitality

attitude. The learning model is a pattern or plan designed in such a way and used to develop a curriculum, arrangement of learning materials, and instructions in learning (Nadlir, 2016). Researchers proposed an online learning model consisting of 4P: opening, deepening, implication, and reflection, which are inseparable steps of teaching and learning methods. Technology would be the center of this online learning model, as the model is a proposed solution for online learning. This study explores the effectiveness of the 4P learning model in encountering the challenges faced in online learning methods to increase student's knowledge, skills, and attitudes.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

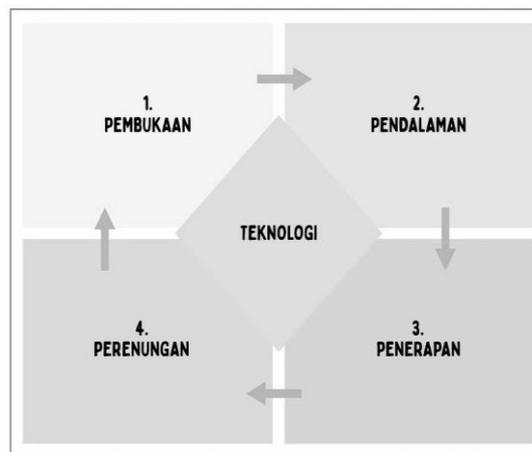
Online learning is a learning process that uses learning principles from information technology and the internet (Hikam, 2020). Online learning is one of the tools that makes the teaching-learning process more innovative, flexible, and student-centered (Dhawan, 2020). Online learning is internet-based learning, which is divided into two forms of implication, namely synchronous and asynchronous learning.

Synchronous learning means that learning is carried out directly / live where teachers and students attend class at the same time and interact directly and end by receiving feedback in it. For example, the teacher provides material using slides and students provide comments and

questions via voice or the comment column (Hikam, 2020). Asynchronous learning is the opposite of synchronous learning, where the learning process is not carried out directly, for example, through materials, assignments, and independent learning students (Dhawan, 2020; Rasmitadila et al., 2020)

Garrison and Vaughan (2008) present a comprehensive framework for blended learning in higher education. Their work emphasizes the integration of face-to-face and online components to create a cohesive learning experience. While the framework provides valuable guidance, it may require further adaptation to address the evolving needs and advancements in online learning. Anderson and Dron (2011) proposed the concept of three generations of distance education pedagogy, highlighting the evolution of online learning. Their framework offers valuable insights into the design and delivery of online courses. However, the study mainly focuses on distance education and may not fully capture the complexities of contemporary online learning environments.

Bates (2015) offers practical guidelines for designing and delivering online courses. The book addresses the unique challenges of teaching in a digital age and emphasizes the importance of pedagogical principles. However, the guidelines may require contextual adaptation based on the specific institutional and disciplinary requirements.



Picture 1: Online Learning Model

Subadi et al. (2022) developed an online learning model to address the limitations observed in previous studies, including the need for advancement, adaptation, and applicability to diverse educational environments, institutions, and disciplinary areas. The proposed Online Learning Model, consists of four stages known as 4P: opening, deepening, implication, and reflection. This model integrates technology into teaching and learning activities to comprehensively support students' course material exploration. Students can delve deeper into the subject matter through case studies and real-life examples by incorporating various multimedia resources such as videos, news articles, and audio from the internet. Chaeruman (2018) emphasizes that the key aspect of online learning is the consistent use of technology to facilitate an optimal learning experience.

In the Online Learning Model proposed by Subadi et al. (2022), each stage is linked as follows:

1. Opening stage: The first phase aims to motivate and engage students in learning. The lecturer facilitates discussions, shows relevant videos, uses mini quizzes or online

games, and explains learning objectives to capture students' interest and encourage their active participation. During this stage, the lecturer can assess the existing knowledge level of each student.

2. Deepening stage: In this stage, students are encouraged to delve deeper into the subject matter through research, critical thinking, collaboration, and communication using technology. The lecturer provides a guide with learning topics, problems to solve, references, and literature. Students collect data through online sources and interviews and present their findings in class.

3. Implication stage: The primary emphasis of this stage is on empowering students to engage in problem-solving and actively apply their newly acquired knowledge. Students are encouraged to create value by effectively utilizing the information they have gained and seek feedback from their peers, lecturers, and other sources. The outcomes of their efforts are captured and documented using a variety of media formats, including videos, photos, audio recordings, and written reports. The lecturer evaluates the students' academic progress and attitudes, offering guidance and support to enhance their learning outcomes if the desired objectives are not achieved.

4. Reflection stage: The final phase involves students reflecting on their learning experiences and interactions. They identify their strengths and weaknesses, consider feedback received, and set new learning targets. The lecturer provides input and opinions through direct interaction or comments via online platforms like E-learn or social media. This reflective process helps students develop self-awareness and adapt their learning strategies accordingly.

These stages form a cyclical process, each building upon the previous one and informing the subsequent stage. By implementing this model, students are actively engaged in the learning process, supported by technology and guidance from the lecturer, leading to a more comprehensive and meaningful learning experience.

Knowledge transfer is a process of moving knowledge into groups or individuals influenced by the personal characteristics involved in the process (Szulanski, 1996). Online learning is transferring knowledge from lecturers to students through online media, such as Zoom, Google Meet, Instagram, etc. The influencing factor is organizational culture, where if you adhere to a family system which means you feel valued, then the maximum transfer will occur (Noya et al, 2017). Another factor depends on the response of the first party, if the first party participated more actively it will allow the knowledge to transfer optimally (Choiro & Rasyad, 2018).

## **RESEARCH METHODOLOGY**

The research method was carried out through limited trials of class experiments in the Risk Management and Sustainable Tourism Management classes by adapting the constructive online learning model by Subadi et al. (2022). The research focused on implementing a virtual face-to-face online learning model and involved limited trials conducted with 130 students. The participants included 77 third-semester students and 53 fifth-semester students

enrolled in Risk Management and Sustainable Tourism Management courses.

Data collection took place at two different time points, with a three-month difference between them. The research used a pre-test and post-test design to measure student learning outcomes. The average pre-test and post-test scores were calculated for each group of students. To analyze the data, a dependent samples t-test was employed to compare the average scores before and after implementing the 4P learning model. Descriptive analysis was also employed to summarize the data and examine the changes in scores from the pre-test to the post-test.

## **RESULT AND DISCUSSION**

This Research method adapted Classroom Action Research (PTK) which was conducted in 2 courses; Risk Management and Sustainable Tourism Management. Researchers and teaching team tried to solve the obstacles during online class by using the 4P learning method and supported by the use of technology in teaching and learning activities.

### **Risk Management Course**

From the learning process of the Risk Management subject, students are expected to be able to compile risk analysis reports and steps to minimize risks that can be followed up by practitioners or management from real companies.

At the opening stage (pembukaan) of the Risk Management course, the teaching team invites students to discuss (brainstorm) what

kind of risks can make a business fail to perform and provide examples of risks that can occur in such a business. After the brainstorming process, the teaching team also explained a problem from the construction project of a 3-star hotel in Surabaya which was affected by the Covid-19 pandemic. Students analyze business risks that can occur if there is a delay in the construction of the hotel project.

In the deepening stage, the teaching team gives a project to students. The project is about analyzing the risks of a hotel that can happen during the construction stage. The teacher applies the role-play learning method, where students play a role in charge of the hotel construction and establishment process, including owners, consultants, contractors, and operators. By carrying out these roles, students are divided into groups of 4-5 people with their respective duties and functions.

The next stage is implementation, where the students are prepared to understand the role and job description of each role play. Each group was tasked with analyzing the business risks of each role played and linking the risk analysis with the learning materials that had been taught in class.

The teacher provides face-to-face mentoring on Zoom by dividing the class into several breakout rooms. Each instructor facilitates some groups and invites students to discuss.

The last stage is reflection, at this stage the teaching team encourages students to think about what has been

learned during the whole process, and what can be improved. Students make live presentations via Instagram, at the end of the presentation session students get feedback from other groups. The feedback is used to improve the report tasks that they have done.

### **Sustainable Tourism Management Course**

The Sustainable Tourism Management course gives the student learning and overview about industrial and business operational analysis in the hospitality sector based on the Sustainable Development Goals concept. The learning process in this course uses problem-project-based learning methods. As the output, students are expected to be able to create a comprehensive report after analyzing the operational process of the hospitality industry based on the Sustainable Development Goals (SDG) concept.

A student's learning process includes understanding SDG standards, analyzing operations of a business, developing innovative ideas, and the last one is creating comprehensive reports. Another aspect that is taught from this course is the attitude of caring for others by prioritizing human values, the ability to collaborate and cooperate in a multicultural environment and being able to communicate well to present recommendations that have been made.

In the opening stage (pembukaan), the teaching team introduces students about the concept of Sustainable tourism, the 3P concept (people, planet, profit), and the 5S concept (reduce, reuse, recycle, repair,

replace). These introductions aim to give the students basic knowledge about sustainability in the hospitality industry. The students are also invited to brainstorm on how to make a good Instagram live, Carousel, and Reels.

The next step is the deepening stage, where students are encouraged to enrich their knowledge of Sustainable Development Goals by searching for information independently and attending guest lecture sessions. The main activity at this stage is creating a social media campaign in the form of an Instagram carousel post about businesses that have implemented sustainability and identify problems to help implement the concept of sustainability in a tourist destination/tourist village.

The implementation stage in this course guides the students to think critically and implement solutions to overcome problems in tourist destinations/villages. The output of this activity is the same as in the previous stage, creating an Instagram carousel.

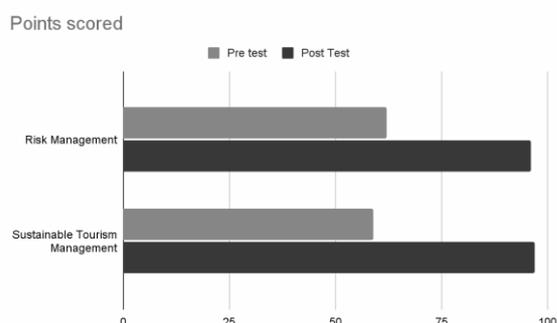
The last stage is reflection, where students present their report regarding the implementation of activities that have been done, through Instagram live media. During the presentation session, other group members, lecturers, and audience members can provide comments that will be used as material for reflection on improvements for their groups

### **Technology Implementation**

Technology plays an important role in facilitating assignments, such as

Elearn media which is used to help the student to read the material asynchronously, the assignment process, and providing feedback from lecturers.

The other technology media that also helps students is Instagram, which takes part as a medium for the students to do live presentations so that they can get feedback from the audience through the chat column. Trello is also used to take notes and coordinate tasks between members, as well as the Miro implication to create mind maps and SOP flowcharts. The use of this technology is very effective and makes it easier for students to coordinate assignments between group members and allows students to work on assignments together in a virtual context.



Picture 2: Diagram of Student Pre-test and Post-test Results.

Based on the student pre-test and post-test results, it can be concluded that there is a significant increase in student understanding in both courses. In the risk management course, the average pre-test score for students is 62, while the post-test result is 96. Meanwhile in the Sustainable Tourism Management course, where the average pre-test score is 59 while the post-test results are 97.

This research was done at two different times and different subjects with more or less the same results, this shows that the 4P learning model has succeeded in increasing student competence and can be applied in various courses at different times.

## CONCLUSION

In conclusion, this study examined the effectiveness of the 4P learning model and technology integration in enhancing students' knowledge, skills, and attitudes during the learning process. The results of the limited trials conducted with 130 students enrolled in Risk Management and Sustainable Tourism Management courses demonstrated a significant improvement in pre-test and post-test scores for both the third semester and fifth-semester students. These findings indicate that the implementation of the 4P learning model effectively increased student competence across various courses and time periods.

One of the key advantages of the 4P learning model is its ability to promote active student participation and value creation, particularly during the implication phase. Incorporating technology in teaching and learning activities encourages students to engage in problem-solving, critical thinking, and collaboration, fostering a more interactive and dynamic learning environment.

These findings have significant implications for the Indonesian education system, which traditionally

relies on a one-sided learning approach. The shift towards the 4P learning model offers a more student-centered and participatory approach, empowering students to take an active role in their own learning and contribute to the creation of knowledge.

In light of the ongoing Covid-19 endemic, the widespread adoption of technology in education has become essential. The 4P learning model provides a valuable framework for educators and policymakers seeking to enhance the quality of online learning experiences. By leveraging the benefits of technology and promoting student engagement, the model holds promise for improving learning outcomes and preparing students for the challenges of the digital era.

Further research and implementation of the 4P learning model are warranted to explore its applicability across different disciplines and educational contexts. Additionally, continued support and professional development for educators will be crucial to implement and optimize the use of the model effectively.

Overall, this study contributes to understanding effective online learning practices and underscores the importance of student-centered approaches in creating meaningful and engaging learning experiences. By embracing innovative models like the 4P learning model, educators can empower students to become active learners and equip them with the necessary skills and competencies for success in the 21st century.

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