



# Integrated Learning: An Effective Model for Food Division Learning in Polytechnic

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## Abstrak

Proses pembelajaran praktik terpadu belum dilaksanakan secara komprehensif di jurusan pariwisata. Oleh karena itu, dirasa perlu untuk meningkatkan metode pembelajaran. Penelitian ini bertujuan untuk menganalisis keefektifan pembelajaran terpadu pada pembelajaran Food Division. Metode pembelajaran yang akan dilaksanakan adalah model pembelajaran praktik terpadu dimana empat mata kuliah yaitu Food Production Operation, Restaurant and Bar Operation, Cost Control dan English for Food Division disnergikan dengan topik yang sama. Jenis penelitian ini menerapkan pendekatan eksperimen kelas tindakan pembelajaran student center. Penelitian ini menerapkan pendekatan eksperimen kelas tindakan di mana dua kelompok sampel diberi perlakuan yang berbeda. Uji-T digunakan untuk menguji apakah prestasi belajar. Hasil analisis tes menunjukkan bahwa penerapan proses pembelajaran praktik terpadu memberikan kontribusi yang signifikan terhadap percepatan pencapaian kompetensi siswa divisi makanan. Oleh karena itu, proses pembelajaran terpadu sangat efektif diterapkan di lembaga vokasi. Hasil uji statistik menunjukkan bahwa kompetensi yang dicapai siswa dengan proses pembelajaran praktik terpadu berbeda nyata dengan yang dicapai siswa dengan proses pembelajaran praktik parsial. Oleh karena itu, disarankan kepada pimpinan Jurusan Pariwisata untuk memotivasi dan memfasilitasi tenaga pengajar khususnya yang mengajar mata kuliah inti untuk menerapkan model pembelajaran praktik terpadu guna mempercepat pencapaian kompetensi materi pembelajaran yang diajarkan kepada mahasiswa.

**Kata kunci:** Belajar, Terpadu, Efektif, Food Division, Politeknik

## Abstract

The integrated practical learning process has not been comprehensively implemented in the Tourism Department yet. Therefore, it is considered necessary to improve the learning method. The study aims to analyse the effectiveness of integrated learning in the Food Division learning. The learning method which will be implemented action class experiment approach in which four courses, namely Food Production Operation, Restaurant and Bar Operation, Cost Control and English for Food Division are synergized under the same topic. The type of the research is classroom action research with student center learning approach. This current study applied the action class experiment approach in which two groups of samples were differently treated. The t-test, was used to test whether the learning achievement. The result of the test analysis showed that the implementation of the integrated practical learning process significantly contributed to accelerate the achievement of the competency of the students of the food division. Therefore, the integrated learning process is a highly effective one to be implemented in the vocational institution. The result of the statistical test showed that the competence achieved by the students with the integrated practical learning process was significantly different from that achieved by the students with the partial practical learning process. Therefore, it's suggested to the management of the Tourism Department to motivate and facilitate the teaching staff especially those teaching the core courses to implement the integrated practical learning model to accelerate the achievement of competence in the learning materials taught to the students.

**Keywords:** Integrated, Learning, Effective, Food Division, Polytechnic

### History:

Received : April 07, 2022

Revised : April 10, 2022

Accepted : June 28, 2022

Published : July 25, 2022

**Publisher:** Undiksha Press

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## 1. INTRODUCTION

Polytechnic is a vocational education institution that provides diploma education. Polytechnics have characteristics that prioritize the application of practical aspects that are

supported by the right theory (Ayyakkannu, 2018; Kanah et al., 2019). Blended learning can be applied at the Polytechnic, but a scheme is needed to formulate the correct learning model. The different characteristics and orientations between vocational and academic education required the design of different learning processes and curricula. In vocational education, learning was conducted with small number learners with average 28 students in a class. The ultimate success of vocational education was not only measured by learning achievement, but also on performance that was in line with the real world of work (Abie, 2014; Finch, 1992). Vocational education graduates must have relevant skills supported by the foundations of science, service motives, and able to apply their abilities in various variations of circumstances, and have ethics, morals and values. Policies in promoting inclusive education can be seen from the procedures of student admissions that are flexible and non-discriminatory, and the efforts of the school to conduct accessibility of facilities and infrastructure for the children with special needs, regular teacher-special assistant teachers collaboration, as well as the flexibility of curriculum implementation for children with special needs (Budiarti & Sugito, 2018; Zakiah et al., 2021).

Nowadays a gap is still identified between the competence acquired by the graduates and the competence required by the tourism industry; therefore, it is necessary to search out a solution as an alternative. There is a gap between the competence acquired by the graduates and the competence required in the world of employment. Furthermore, it is stated that several steps should be taken to anticipate the gap (Bahari & Oka, 2014; Muluk et al., 2016; Patriani et al., 2018). The steps include the learning achievement of the study program should be revised; the competence provided should be adjusted to what is required by the world of employment; and the condition of the graduates currently required by the industry should be sought out (Oka, I, M et al., 2021; Perdana et al., 2021; Putra et al., 2018). Attitude, knowledge and skill are the factors which significantly contribute to the competence of the students of hospitality achieved through the learning process (Kanah et al., 2019). Among the three factors, the one which most dominantly contributes to the competence achieved by the students is the skill. Therefore, the learning process should be comprehensively evaluated in order to obtain the output needed by the industry.

In the integrated learning process, the materials are holistically presented and oriented towards competence (Rochman et al., 2019; Wahyudi & Wulandari, 2021). The fact in the field shows that what has been so far implemented is the teacher-cantered learning process, causing the learners' learning experience has not been intact and has not been oriented towards the achievement of competence (Dwyer et al., 2014; Oka, I, M et al., 2020). In addition, the learners have been made to be accustomed to developing the potentials they have, causing many learners not to have touched the affective and psychomotor aspects (Widiana et al., 2018). The integrated learning causes the inter- and intra-concepts of subjects to be connected with one another. The integrated connection among the concepts facilitates the learners to be actively involved in the learning process and motivates them to understand the concepts they learn through direct experience and by connecting them with the real experiences.

The teacher needs to be creative and innovative in order the students are interested in following the teaching process (Widiana et al., 2018). One of the ways is by using an appropriate teaching. The teaching process has to provide meaningful learning to make the students acquire an ability that is needed to solve a problem in such a way that they get an optimum learning achievement (Arsyard, 2005; Boonprasom & Sintanakul, 2020). It's mean the teacher should highly be creative; they should be highly skilled in the good learning methodology; they should be highly self-confident, and they should be brave enough to develop the learning materials comprehensively. If well planned, the integrated learning process can give more useful learning experience to the students. The reason is that what is

learned by the students is in accordance with the context of the real employment in the industry through working simulation.

It is in line with previous research that found the learning program at the PNB when viewed from the components: context is effective, input is effective, process is effective, product is ineffective is, and the relationship between context, input, process, and product is quite effective (Budarma, I & Astuti, I, N, 2017; Gunung & Darma, 2018). It is recommended that an increase in the effectiveness of the implementation of learning programs in PNB can be carried out by increasing the effectiveness of the product component through increasing the effectiveness of context, input, and intensive learning processes. Then previous researcher also shows that blended learning can be a choice for lecturers that can increase student understanding and motivation in learning (Permata, I & Nanda, B, 2021; Rachman, L & Sudiyo., P, 2021). The implementation of this method requires detailed lecture instructions so that students can focus on learning.

Based on the description above, this study analyses the competence achieved by a group of students with the treatment of the integrated practical learning would be significantly different from that achieved by another group of students with the treatment of the partial practical learning. The focus of the problem being studied is whether the integrated learning process is effectively applied in the food division learning at the polytechnic.

## 2. METHODS

This current study applied the action class experiment approach in which two groups of samples were differently treated. The experiment group (E) was the group of the students used as the experiment in which the integrated practical learning process involving four courses was applied. The courses which were involved were the Food Production Division Operation, the Restaurant and Bar Operation, the Cost Control, and English for Food Division. The Control Group (K) was the group of students in which the partial practical learning process was applied. The population of the study included the semester III students of the Study Program of Management of Tourism Business of PNB for 2018/2019 academic year. The samples were randomly selected from four classes; they were class IIIA, IIIB, IIIC, and IIID. After they were randomly drawn, two classes turned out to be the samples; they were class IIIA and IIIB, meaning that the number of samples could be determined in accordance with the number of the students in each class.

Then, what class would be used as the experiment group and what class would be used as the control with different treatments were determined. One group was treated with the integrated learning process and the other was treated with the partial practical learning process using the random sampling technique. The subjects of the study in each group, were classified based on three categories of the scores obtained through pre-test; they were food, fair and poor. The clarify composition of populations and samples can be seen in Table 1.

The inferential statistical technique, especially the t-test, was used to test whether the learning achievement achieved by the experiment group with the integrated practical learning process was significantly different from that achieved by the control group which did not apply the integrated practical learning process. After it was tested, the group showing the better average score was paid attention to.

**Table 1.** The Composition of Populations and Samples

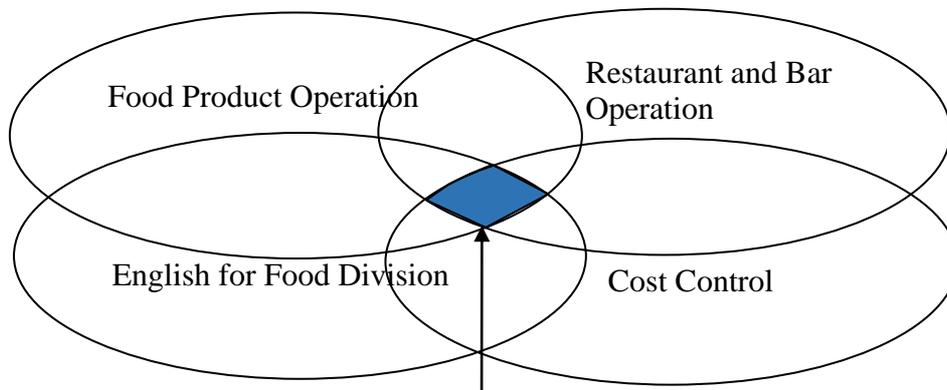
Category	Population		Sample	
	Experiment Group	Control Group	Experiment Group	Control Group
Good	9	10	9	9
Fair	12	11	11	11

Category	Population		Sample	
	Experiment Group	Control Group	Experiment Group	Control Group
Less	7	7	7	7
Amount	28	27	27	27

### 3. RESULTS AND DISCUSSION

#### Result

The integrated learning model is a model in which a number of topics from four different courses are combined; however, the essence is similar to a particular topic. The Food Division Operation, the Restaurant and Bar Operation, the Cost Control Division, and the English for Food Division have the evidence topics. The implementation of the integrated learning practice is intended to make the students able to catch or understand the learning competence which is expected to be achieved more rapidly. A particular topic in the course of the English for Food Division, especially the topic of serving food and beverages at the restaurant can be integrated into one learning item in the course of the Restaurant and Bar Operation. In the course of the Food Division Operation especially into the topic of serving the menu (starting from the appetizer, soup, main course, to the dessert) prepared or produced in the kitchen. By the same token, the course of Cost Control can be made to be connected with the method of calculating the product selling price offered in the list of the menu. In this way, the four courses can be integrated in what is referred to as the integrated practical learning model which can be implemented when the course is conducted in the restaurant. Integrated Learning Food Division Model is show in [Figure 1](#).

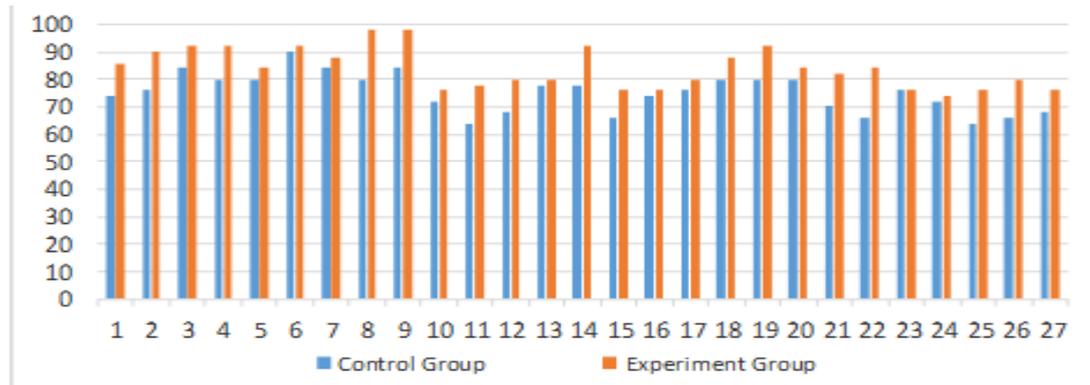


**Figure 1. Integrated Learning Food Division Model**

From [Figure 1](#), what has been observed shows that the practical learning process in the Tourism Department of the Study Program of Management of Tourism Business of Politeknik Negeri Bali is still partially dominated by separate learning targets and still gives more emphasis on the achievement of each competence. Therefore, the current study explored the contribution of the integrated practical learning in which four related courses, namely Food Division Operation, Restaurant and Bar Operation, Cost Control and English for Special Purposes were integrated. It is expected that the application of the integrated practical learning can more easily simulate the students and relate the learning material provided for a learning competence to another learning material for another learning competence as required by the tourism industry which always develops.

The data of the study were obtained from the scores as the learning results of the four integrated courses reflecting the competence acquired by the students to support the employment in the tourism industry. The courses which were integrated were the Course of

Food Division Operation, the Course of Restaurant and Bar Operation, the Course of Cost Control, and the Course of English Professional for Food Division with the topic serving the guests at the restaurant. The data were taken from two groups of the students of the Study Program of Management of Tourism Business, the Department of Tourism of the Politeknik Negeri Bali who were in semester III for the 2017/2018 academic year. The samples used in the current study totalled 54 students divided into two groups. One group was treated as the group with the integrated learning treatment referred to as the experiment group totalling 27 students. The other group was treated without the integrated learning treatment referred to as the control group totalling 27 students. The post test result is show in [Figure 2](#).



**Figure 2** The Post test Result Obtained

Base on [Figure 2](#) showing the learning results obtained by the students, then the data were processed using SPSS with the t test technique of analysis in which two samples were paired. The result of data processing for t score is show in [Table 2](#).

**Table 2.** The Result of Data Processing for t Score Test

	Paired Differences					t	F	Sig. (2-tailed)
	Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Part 1 Experiment Group Control Group	8.889	5.359	1.031	6.769	11.009	8.619	6	0.000

Base on [Table 2](#), the result of the data processing showed that the integrated practical learning highly significantly improved the competence needed by the students to serve food and beverages at the restaurant. The fact that the competence achieved by the experiment group of students was significantly different from that achieved by the control group proved this. The competence achieved by the experiment group was better than that achieved by the control group of the Study Program of Management of Tourism Business, the Department of Tourism of the Politeknik Negeri Bali.

**Discussion**

Based on the result of the data, the finding was that the implementation of the integrated practical learning significantly contributed to the improvement of the competence

achieved by the students of the Study Program of Management of Tourism Business, the Department of Tourism of the Politeknik Negeri Bali in tourism especially the competence needed to serve food and beverages. The result of analysis proved that the competence achieved by the group of the students with the treatment of the integrated practical learning process was significantly different from that obtained by the group of the students with the treatment of the partial practical learning process. Therefore, it can be concluded that the integrated practical learning can be effectively implemented in the learning process of tourism in general and in the food and beverage service.

The application of the integrated learning is intended to improve the creativity of the students and motivate them to learn. This can be seen during the learning process. The students will get more motivated, feel more intimate and braver to present their opinions when answering the questions raised as the teaching staff always involves the students in preparing the learning media, causing the learning process to become active, creative, effective and pleasant. Previous study stated that the learning activity could be done through process of actively controlling the work place, causing the students to have more self-confidence through the assignments and motivations given by the teaching staff, and to evaluate themselves; as a result, the expected competence can be acquired (Coll et.al 2002). The same thing was also stated by previous researcher that state the integrated practical learning could effectively improve the achievement of the competence achieved by the students in the ticket reservation, as the concept was learned through direct and real experience, causing the students to be able to understand the concept fully (Oka et al., 2017). What is meant by the direct experience in the current study is the integrated practical learning which is designed in such a way that it is almost identical with the real situation in the industry in which the themes are created based on the fields of employment in the industry.

It is in line with previous study that analyse accounting e-module which is integrated with the character value Sitorus et al. (2019). The result found that the accounting e-module which is integrated with the character value can highly effectively improve the learning result and honesty of students. The implementation of the innovative learning with a modified tour activity can inspire students to improve their learning of concepts or the theory of tourism and its application to the tourist destination. As well other researcher also claimed that the practical learning model integrated with the outside school tour inspires students to be aware of environment, causing them to learn actively (Junaid, 2018; Sujarwo, S & Wibawa, 2018). The principles and practical applications of these most basic psychological skills can be taught in easier ways and probably in a relative short period of time among youth learner (athletes) (Shaari et al., 2019).

The principles of the integrated learning process includes: the hidden curriculum, meaning that a child does not only learn from what is explicitly stated but it is also highly possible that the learning process developed contains any “hidden message” which is highly useful to the child (Permana, 2008). In the integrated learning process a teaching staff member should transform from becoming a provider of information into becoming a facilitator, supervisor, an informant and an organizer (Wilujeng, I., Setiawan. A., 2010). As the role played by the teaching staff changes, the students have wider opportunities to excavate and analyse the issues and problems with more open activities (Gan et al., 2015; Murtini, 2016). The students are more involved in all stages of learning, starting from the planning, assignments, and activities to self-reflection and evaluation. In the framework of improving the learning activities, the content, skill and process are integrated in the curriculum. In this way, the students have the opportunity to be more enthusiastic, evaluate themselves and to acquire knowledge more effectively (Oka, I, M et al., 2020; Oka, I, M & Winia, I, 2011).

It is expected that the integrated practical learning process can identify, collect, evaluate and use the surrounding information meaningfully. That can be acquired not only through the new knowledge given to the students but also through the opportunities which the students have to stabilize and implement it in different new situations which are getting developing in the tourism industry. Through the application of integrated practice seriously, it is able to encourage students to be more creative and innovative in implementing their knowledge to get the specified competencies.

#### 4. CONCLUSION

The integrated practical learning process can effectively give wide opportunities to the students to see and establish the concepts which are related to one another. The implementation of the integrated practical learning significantly accelerated the achievement of the competence of the students of the food division of the Study Program of Management of Tourism Business, the Department of Tourism of the Politeknik Negeri Bali. The result of statistical analysis showed that the learning achievement achieved by the experiment group of the students with the treatment of the integrated practical learning was different from that achieved by the group of the students with the treatment of the partial practical learning. Therefore, it can be stated that the integrated learning model can be effectively applied in vocational school as the Politeknik Negeri Bali.

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