

Application of Flipped Classroom Method for Learning Worksheets Material

Irene Kim Lie*, Rousilita Suhendah
Faculty of Economy and Business, Universitas Tarumanagara, Jakarta, 11440, Indonesia

*Correspondence should be addressed to Irene Kim Lie; irenekimlie12@gmail.com

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Abstract

Based on data from the Central Bureau of Statistics, Indonesia is projected to enjoy a demographic bonus in 2045. This condition must be utilized because this is the first time in the history of the Indonesian nation. The demographic bonus that will occur in 2045 should be utilized properly. One is education that supports the younger generation to be more innovative, intelligent, critical-thinking, and skilled. The skills that a student can possess are in the field of accounting. Besides building skills, accounting can also shape the way of critical thinking and add focus and thoroughness to a student. St. Kristoforus 1 High School, as one of the target schools, has several students still interested in accounting. Due to this enthusiasm, Universitas Tarumanagara was there to provide accounting training, and the method chosen was the flipped classroom method. This paper explains the working paper where the general use is to help the process of making financial statements. Each educator will get the learning material first, so there is a difference between the conventional type of learning that usually occurs when exploring the material. This method was chosen because it is suitable to support the understanding of accounting materials and it can explore the material to be discussed more widely. This training is expected to be used by students to open a business in the future or continue their education at a higher level.

Keywords: *accounting, flipped classroom, worksheet, young generation*

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Introduction

Formal education can encourage the development of the cognitive abilities of the millennial generation. Schools as facilitators can support this development. Based on big data from the Central Bureau of Statistics (Subdirektorat Statistik Demografi, 2018), in 2045, Indonesia has a productive-age population aged 15-64 that is increasing significantly. The younger generation is the main target of the demographic bonus projected to occur in 2045.

A skilled, technologically literate, and creative workforce is the basis for creating an actual demographic bonus. The demographic bonus opportunity opens up incredible economic opportunities if appropriately handled. This can be realized through preparing the younger generation to become the golden generation through quality learning. One way to utilize Indonesia's first demographic bonus throughout the journey of Indonesia's independence until now is to invest in education (Prof. Nizam, 2023). Therefore, all formal education is essential to encourage the growth and development of this country. The role of accounting education is no exception (Daryanto, 2021), that through audit, accounting, and finance training activities at PT HSBC, companies can achieve their goals through accounting. It is interesting to see how accounting can play such a crucial role in helping businesses reach their objectives. By providing financial insights and analysis, accounting can help companies make informed decisions that lead to success.

In daily transactions, it will be straightforward to find accounting. According to Soemarso (2018), the American Accounting Association, accounting starts from identifying, measuring, recording, and reporting information about finance for future assessment and decision-making. Accounting requires focus, thoroughness, and unique skills to be called an art. The specialized skill of accounting requires the readers and preparers of accounting to have the capacity for expertise in accounting.

The learning method usually chosen in implementing accounting learning is the lecture method. This conventional method focuses on the teacher as a presenter to explain the concepts and knowledge information owned by the teacher so that students have limitations in digging deeper into data related to the existing material. Sueni (2019) argues that the lecture method is an old method that has a number of weaknesses because the attention and ability of a student are not well measured.

Because of this, the flipped classroom method is used because it is felt that in addition to keeping up with the times and fostering critical thinking from a student, the flipped classroom method enables interaction between a student and the facilitator, namely the teacher and the surrounding environment. This method begins by providing learning material first to each student to be understood; if there is material that has yet to be understood by each student, then it can be submitted as a question and discussion in class.

Each student can access all information more widely using internet technology and discuss it in class (Mega Wulandari, 2020). This method is believed to foster the activeness of each student in the classroom and is a solution to the problem of less effective and efficient learning methods.

Huong et. al (2018) conducted previous research related to the flipped classroom learning method, titled *The Flipped Classroom: Using Thematic Teaching to Develop Critical Thinking for High School Students*, provides a clear conclusion that learning with this method runs effectively and in harmony with the learning method. The application of this method fosters a positive impact on students and will be applied in accounting learning activities for the worksheets discussed in this paper.

Teaching assistance team from Universitas Tarumanagara took St. Kristoforus 1 High School as a pilot project. This school is a private Catholic school located at Jalan Rahayu No 12, West Jakarta, where the school is under the auspices of the Diannanda Foundation. The school has been established since 1994 and has an A accreditation. Students from this school are interested in accounting subjects. In order to fulfill this enthusiasm, accounting learning training using the flipped classroom method is provided at St. Kristoforus 1 High School every Wednesday and Friday from 14.45 to 16.45, which is attended by students in grades 10, 11, and 12. There are more than 30 participants who registered to join together in this accounting training activity. The activity was conducted for 20 meetings from August 4, 2023, to October 11, 2023. Specifically, this paper will discuss the preparation of ledgers and worksheets with the flipped classroom learning method.

Methods

The flipped classroom learning method starts by providing materials to students before class. This is so that each student understands each material to be learned on that day. On the previous day, there is a distribution of learning materials that will be carried out in the classroom. Each material is sent to the WhatsApp group formed on the previous day and meeting, which is given to 11 grade 10 students and 29 grade 11 and 12 students. Each student will actively read, study, and find related information from the accounting material discussed the next day. The flipped classroom method gives students the freedom to find information related to the material to be discussed at this meeting through the help of the internet or other technology so that all the material presented will be more targeted to each student who studies worksheets accounting material.

If there is material that has yet to be understood by each student, it can be questioned in class. When the course starts, it will be opened with a discussion method related to the material given previously. Each question will be answered through a demonstration method that will be discussed in the prepared training questions so that students can better understand the accurate picture that occurs in everyday life. In addition, explanations are also added using an approach that is easier for students to understand.

Implementing accounting learning occurs face-to-face, precisely in the XII IPA 2 classroom, for ten weeks, starting on Friday, August 4, 2023, and ending on Wednesday, September 18, 2023. This class was attended by students from St. Kristoforus 1 High School, which was attended by around 30 participants with two face-to-face hours starting from 14.45 to 16.45. The module focused on accounting for service and trading companies consists of introduction to accounting, journaling system for service companies, ledger recording system for service company, adjustment journal paragraph for service company, prepare financial statements for service company, special transactions for trading company, journaling system for trading company, ledger recording system for trading company, adjustment journal paragraph for trading company, and prepare financial statements for trading company. But it would then be focused with adjustment journal and worksheets for the service company. All question in training activities were carried out face-to-face because, based on observations, activities with this system are more effective because they can conduct direct question-and-answer interactions after previously reading the material that has been sent through the WhatsApp

group that has been formed since the beginning of this training. The distribution of materials before the class starts by the flipped learning method aims to provide an overview of the material that would be discussed at the training meeting.

The whole activity took place very interactively by every student of St. Kristoforus 1. The students were very enthusiastic in trying to answer every question. A discussion situation emerged, which made the class atmosphere feel more alive because of the two-way interaction. Explanations were made to provide an understanding of the writing of ledgers and working papers, starting from the Balance Sheet section to the Adjusted Balance Sheet, and there were five columns with a total of 10 columns presented (Figure 1). In the next part, a joint discussion was held through questions and answers (Figure 2).



Fig. 1. Photo during the explanation of the exercise on ledgers and worksheets



Fig. 2. Photos during class discussion

Results and Discussions

The great enthusiasm of the students of St. Kristoforus 1 High School was one of the factors for implementing accounting training method at the school. The method chosen to conduct teaching was a flipped classroom because most of the students already understand accounting. Meanwhile, the material chosen to be discussed in this paper is the creation of worksheets.

Table 1. Wilcoxon test for pre-test and post-test data

		Ranks		
		N	Mean Rank	Sum of Ranks
Post Test - Pre Test	Negative Ranks	1 ^a	2.50	2.50
	Positive Ranks	18 ^b	10.42	187.50
	Ties	2 ^c		
	Total	21		

a. Post Test < Pre Test

b. Post Test > Pre Test

c. Post Test = Pre Test

To measure the success of the activities, a questionnaire was attached. At the same time, the data used in the following tests were processed using SPSS with the Wilcoxon Test because the processed data were not normally distributed. Through 21 respondents in this questionnaire, there was a slight decrease from the pre-test phase to the post-test degree. Still, the decline that occurred can be insignificant when compared to the amount of increase experienced in the positive rank, namely the post-test to pre-test phase. The transition after the activity was carried out averaged 10.42, so this activity affected the knowledge of students who attended the meeting.

Table 2. Test statistics for pre-test and post-test data

Test Statistics ^a	
Post Test - Pre Test	
Z	-3.733 ^b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

The implementation of the activities carried out has a hypothesis of its activities, namely regarding the usefulness of accounting class, especially for learning this working paper material with the flipped classroom method. The results of the statistical test table show that a significant increase occurs because the effects of Z are worth < 0.05 or have a consequence of -3.733. It can be concluded that the hypothesis related to activities that take place for learning can be accepted.

Flipped classroom is a learning method where students learn the material first. Afterwards, they will be given a discussion of practice questions so that students can explore more about the existing material. (Lydia, 2019) This learning method is one of the learning methods influenced by the digital revolution because it makes students explore the material that has been provided before entering the material to be studied. Students/educator facilitators will provide brief learning in the form of videos, materials or e-learning. This approach does not change the initial concept of a learner but will open up insights so that it will be more active in training.

The Flipped Classroom method is a method that is influenced by the development of today's technology (Fauzan et al., 2021). This method is well-known and popular, especially since the COVID-19 pandemic, by combining offline and online modes at the same time. The independence of students are also needed for this method. An overview of the realization of the way is first, students will get a short learning module through online media to be able to understand the material better before the material is explained in front of the class. Next, there will be training on accounting problems in class to discuss in more detail about the material.

Before entering numbers in working papers, students were asked to understand the ledger, which contains account names, account numbers, and debit and credit transactions, which will later be entered into the ledger that was discussed in the previous meeting. The ledger after the adjustment journal will be made as a step before making working papers after the adjustment journal.

The following is an example of the answer to the ledger after the adjustment journal.

Table 3. General ledger

Account Name: Supplies					Account Number: 140	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
3	Payment with cash & credit	J.1	1,200,000		1,200,000	
31	Adjustment	J.2		300,000	900,000	

Account Name: Prepaid Rent					Account Number: 141	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
2	Payment with cash	J.1	12,000,000		12,000,000	
31	Adjustment	J.2		4,000,000	8,000,000	

Account Name: Accumulated Depreciation Equipment					Account Number: 204.1	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
31	Adjustment	J.2		210,000	210,000	

Account Name: Utilities Payable					Account Number: 306	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
31	Adjustment	J.2		50,000	50,000	

Account Name: Depreciation Expense Equipment					Account Number: 607	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
31	Adjustment	J.2	210,000		210,000	

Account Name: Supplies Expense					Account Number: 608	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
31	Adjustment	J.2	300,000		300,000	

Account Name: Utilities Expense					Account Number: 608	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
25	Payment with cash	J.1	900,000		900,000	
31	Adjustment	J.2	50,000		950,000	

Account Name: Rent Expense					Account Number: 710	
Date	Description	Ref	Debit	Credit	Balance	
					Debit	Credit
31	Adjustment	J.2	4,000,000		4,000,000	

Working paper (worksheet) is the material discussed in this paper. Making worksheets will facilitate the preparation process for making income statements, statements of changes in capital, and financial statements in the previous section. Worksheets include all transactions in an accounting period, with five columns of 10 consisting of trial balance, adjustments, trial balance after adjustment, profit and loss, and balance sheet. The worksheet, after adjustment, will be used for the preparation of financial statements; the profit/loss section will affect the

profit/loss statement of a company, and the balance sheet section of the worksheet will be used in the financial statements.

The worksheets, after adjustment, will produce the balance of the profit and loss account and depict the ending capital of the statement of changes in capital. Worksheets will directly illustrate the condition of the profit/loss balance in a company. If the location of the overview in the profit/loss column is on the debit side, it will illustrate the profit balance of a condition in the company; this applies vice versa. Making worksheets after adjustments can minimize the possibility of miscalculations in the income statement, statement of changes in capital, and financial statements. Here is an example of a worksheet.

Salon Ibu Sasa
Worksheet
Maret 2023

Account Number	Account Name	Balance Sheets		Adjustment		Balance Sheets Adjustment		Income Statement		Financial Position	
		Debit	Credit	Debit	Kredit	Debit	Kredit	Debit	Kredit	Debit	Kredit
100	Cash	37,400,000	-			37,400,000					37,400,000
120	Account Receivable	2,000,000	-			2,000,000					2,000,000
140	Supplies	1,200,000	-		300,000	900,000					900,000
141	Prepaid Rent	12,000,000	-		4,000,000	8,000,000					8,000,000
202	Vehicle	25,000,000	-			25,000,000					25,000,000
204	Equipment	7,000,000	-			7,000,000					7,000,000
220	Unearned Revenue	-	200,000				200,000				200,000
300	Account Payable	-	4,000,000				4,000,000				4,000,000
400	Bank Loan	-	50,000,000				50,000,000				50,000,000
409	Drawing	1,200,000	-			1,200,000				1,200,000	
410	Paid Up Capital	-	25,000,000				25,000,000				25,000,000
500	Revenue	-	12,500,000				12,500,000		12,500,000		
600	Salaries Expense	5,000,000	-			5,000,000		5,000,000			
702	Utilities Expense	900,000	-	50,000		950,000		950,000			
	TOTAL	91,700,000	91,700,000								
204.1	Accumulated Depreciation Equipment				210,000		210,000				210,000
306	Utilities Payable				50,000		50,000				50,000
607	Depreciation Expense Equipment			210,000		210,000		210,000			
608	Supplies Expense			300,000		300,000		300,000			
710	Rent Expense			4,000,000		4,000,000		4,000,000			
	TOTAL			4,560,000	4,560,000	91,960,000	91,960,000	10,460,000	12,500,000	81,500,000	79,460,000
	Income Summary							2,040,000			2,040,000
	Owner's Capital							12,500,000	12,500,000	81,500,000	81,500,000

Fig. 3. Working paper

Conclusion

The implementation of the flipped classroom method can be effective and efficient. Students understood more efficiently through this method and produced positive final results for students of St. Kristoforus 1 High School. The increase in insight gained can be seen from the enthusiasm of the discussions that occurred during the learning process. Based on direct observation, all students understood the implementation of recording worksheets. The author hopes that this accounting learning activity can be used by students of St. Kristoforus 1 High School to increase their knowledge and skills for those who want to continue their further education in accounting or their business activities.

Implementing this learning has a positive impact and was easy to understand by the accounting trainees. Therefore, the author's suggestion for the future is that St. Kristoforus 1 High School will provide continuous cooperation to carry out similar activities so that more students will understand more about accounting material.

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