



## LITERACY FINANCIAL TECHNOLOGY THROUGH THE USE OF MICROSOFT EXCEL

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### Abstract

*The purpose of this community service in the form of financial literacy training through Microsoft Excel integration is to improve understanding of financial management priorities and apply Microsoft Excel features to manage finances for Sekolah Indonesia Bangkok junior and senior high school students. Each participant received a training kit, in the form of practical worksheets and goodie bags containing stationery and guidance modules. Worksheets and guide modules are sustainable, so that students can apply them in life outside the training session. The learning methods used in the training are project-based learning and interactive discussions. First, learners get an understanding of the concept of financial management priorities, then proceed with Microsoft Excel practice. The final evaluation is done through the final worksheet results and question and answer activities that cover the cognitive, psychomotor, and affective aspects of the learners. The result of this training is that students understand the concept of financial management priorities in theory, apply Microsoft Excel features, and integrate financial management with Microsoft Excel features.*

**Keywords:** *Financial Literacy, Financial Management, Microsoft Excel, and High School*

### INTRODUCTION

Education in the development process of a country occupies a vital role, considering that education is the backbone of the country's growth progress (Jahantab, 2021). As an Indonesian citizen, getting access to proper education is the right of every citizen guaranteed in Article 31 Paragraph 1 of the 1945 Constitution. One of the levels of education in Indonesia according to Law Number 20 of 2003 is secondary school, both junior high school (SMP) and senior high school (SMA). The era of the industrial revolution 4.0 demands a change in the learning mechanism of secondary schools in Indonesia. The curriculum requires learning to integrate with technology mastery. This is in line with the need for *hard skills* in the era of the industrial revolution 4.0, namely basic computer skills (Asian Development Bank, 2021).

In addition, financial literacy is also a key *life skill* in preparing Indonesia's young generation for the future. By understanding financial literacy, one can plan finances wisely and improve financial well-being without being affected by trends (Lusuardi & Messy, 2023). Furthermore, an understanding of financial literacy can influence financial behavior, especially to avoid the *fear of missing out* (Prasetio, 2022). Therefore, providing financial literacy education integrated with computer mastery can help the survival of prosperous high school students in the future. Sekolah Indonesia Bangkok (SIB) is one of the Indonesian Overseas Schools (SILN) located in Thailand, precisely in Bangkok. This school provides educational services for Indonesian citizens in Thailand from kindergarten, elementary, junior high and high school levels. Although located in Bangkok, the learning curriculum used is the Merdeka Curriculum. With the Merdeka Curriculum, educators have the flexibility to create learning methods for students (Mahmudah, 2023). The '*Financial Technology Literacy through the Use of Microsoft Excel*' training supports the characteristics of Merdeka Curriculum, namely project-based learning to improve students' soft skills in the form of financial management *skills* and *hard skills* in the form of using Microsoft Excel software. The problem that occurs is that there is no learning focused on financial management, both in a structured curriculum and socialization of financial literacy education to

junior and senior high school students at the Indonesian School Bangkok. Microsoft Excel learning is still at the basic level, so the application of Microsoft Excel features in everyday life still needs to be improved.

This training aims to improve the knowledge and skills of Sekolah Indonesia Bangkok junior and senior high school students in understanding financial literacy and applying financial prioritization practices in Microsoft Excel. With this training, Sekolah Indonesia Bangkok junior and senior high school students will gain a full understanding of financial literacy and hone their Microsoft Excel skills in real life.

This training implements SDGs point 4, namely quality education and SDGs point 17, namely partnerships to achieve goals. The output of this training is expected to improve the quality of education of Sekolah Indonesia Bangkok students, especially in technology-based financial literacy. In addition, this training can be a bridge for sustainable cooperation between Sekolah Indonesia Bangkok and the University of North Sumatra's S1 Development Economics Study Program in the future.

## **MATERIALS AND METHODS**

Before carrying out the activity, preparations were made, such as conducting a needs survey, literature study, making Excel *worksheets*, and making a guide module that is easy for students to understand. The *worksheet* used is sustainable, so that students can use it in managing their daily finances. This activity is in collaboration with the Indonesian School Bangkok to determine the time and place of implementation of the activity. The implementation of Microsoft Excel-based financial literacy training activities was carried out on Wednesday, October 18, 2023 at 09.00 to 12.00 Thai time. Participants who attended this training amounted to 35 students at the junior and senior high school levels of Sekolah Indonesia Bangkok. The activity began with the distribution of practice kits containing stationery and guiding modules, delivery of material through powerpoint slides accompanied by *live class* practice working on *worksheets* that were already available.

The learning methods in this training are *project-based learning* and interactive discussions. *Project-based learning* is a teaching model that emphasizes giving assignments, especially in the form of projects that can lead students to experience the inquiry process (Hamidah et al., 2020). This method is expected to develop learners' skills, understanding, and attitudes during the practical sessions. Then through interactive discussions, secondary school students are expected to generate critical thinking skills, increase interest in learning new knowledge, and be motivated to solve problems together (Kutbiddinova et al, 2016). Finally, an evaluation was conducted through a question and answer session with prizes for 7 students who could answer questions quickly and accurately.

## **RESULTS AND DISCUSSION**

The activity began with distributing *practice kits* to students in the form of stationery and guide modules. This activity was divided into two sessions, namely financial literacy material sessions and Microsoft Office Excel practice sessions.



**Figure 1.** The Guidance Module is packaged in the form of attractive illustrations for easy understanding.

In the material session, students were given material on financial literacy, including the urgency of managing finances, the concept of financial management, and priorities for managing finances. This material was explained through a two-way interactive discussion method with the initial aim of knowing the initial description of consumption activities that have been carried out by Sekolah Indonesia Bangkok junior and senior high school students. Then, stimulus material was given so that students know how to take the right steps in managing finances.



**Figure 2.** Each learner receives a guide module



**Figure 3.** Interactive discussion with students to find out about consumption activities that have been carried out.





**Figure 4. Delivery of stimulus material on financial literacy to students.**

After the delivery of the material, the activity continued with a Microsoft Excel practice session integrated with financial management *worksheets*. The instructor will do a demonstration first, then followed directly by students through their Microsoft Excel. Students are given the opportunity to ask directly if they experience problems during the practice process. Practical learning is carried out through Microsoft Excel *worksheet* files that have been distributed to participants via Google Drive links. In order for the output of this training to be measurable and focused on the expected competency output, the '*Financial Technology Literacy through the Use of Microsoft Excel*' training *worksheet* is organized with five sub-chapters. Each sub chapter has competencies that learners must achieve. The five sub-chapters and the competencies taught through *live teaching* practices are as follows:

**1. What is the Maximum Fund Allocation this month?**

Competencies mastered:

- a. Able to apply multiplication calculation operations in Microsoft Excel; and
- b. Able to design monthly fund allocation.

**2. Items I've Purchased This Month**

Competencies mastered:

- a. Able to apply multiplication calculation operations in Microsoft Excel;
- b. Able to apply SUM formula;
- c. Able to apply the auto numbering feature; and
- d. Able to record consumption expenses in a neat and structured manner.

**3. Total consumption by category**

**4. Competencies mastered:**

- a. Able to apply the Pivot Table feature;
- b. Able to sort data in a Pivot Table;
- c. Able to create 3D graphics with additional Data Callout; and
- d. Able to apply Slicer.

**5. Items I Will Buy Next Month**

Competencies mastered:

- a. Able to apply multiplication calculation operations in Microsoft Excel; and
- b. Able to set simple *financial goals* for a period of one month.

**6. Monthly Summary**

Competencies mastered:

- Able to apply multiplication and division calculation operations in Microsoft Excel;
- Able to apply Cell Reference for automation; and
- Able to evaluate monthly personal finance independently and in a structured manner.

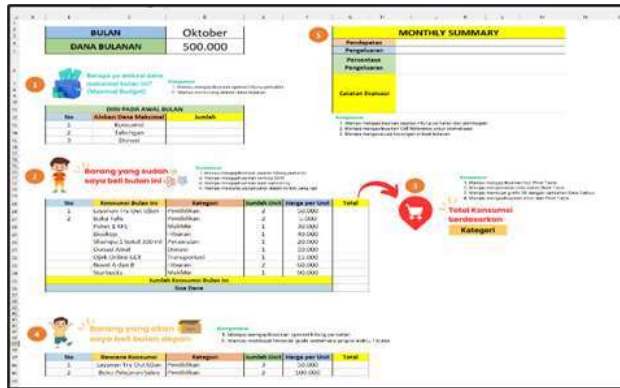


Figure 5. Microsoft Excel worksheets that are used as Project Based Learning-based practice materials for junior and senior high school students



Figure 6. Students practice working on the *worksheet* that has been provided

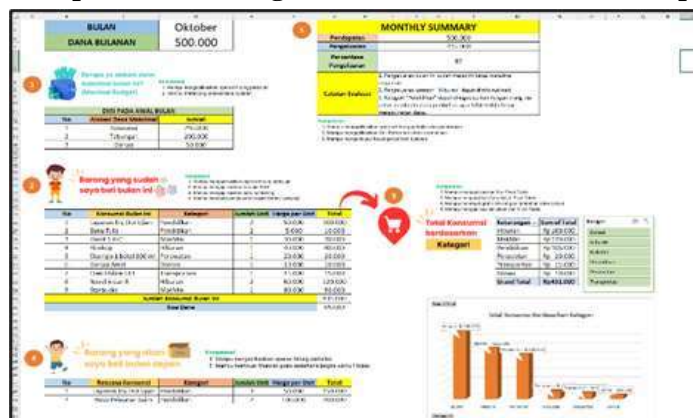


Figure 7. Output of *worksheet* that have been completed by students

During the training, the learners needed a more detailed explanation of Subchapter 3, as the pivot table and graphical features were features that they had never used before.

The output of this activity can be viewed from cognitive, affective, and psychomotor aspects. On the cognitive aspect, learners can understand the theory of Microsoft Excel and the

concept of financial literacy. In the affective aspect, learners can develop a responsible attitude with financial priorities that have been designed independently. On the psychomotor aspect, learners can develop computer skills, especially on Microsoft Excel features.

The final evaluation given to students is in the form of quizzes that are answered quickly and precisely. The final evaluation given is as follows:

1. Using Microsoft Excel, what is the result of 1,350,300 multiplied by 345,678? (Psychomotor).
2. Using Microsoft Excel, what is 29% of 5,543,219? (Psychomotor).
3. What is the function of the SUM formula? (Cognitive).
4. What percentage is allocated for each financial planning priority? (Cognitive).
5. What is the division symbol in Microsoft Excel? (Cognitive)
6. What is the multiplication symbol in Microsoft Excel? (Cognitive)
7. What is the function of a Pivot Table? (Cognitive)

In developing effective aspects, each learner's answer is asked for further explanation. This is to ensure that learners are able to take responsibility for the answers they choose.



**Figure 8. Training with Sekolah Indonesia Bangkok junior and senior high school students**

The results obtained from this study are:

- (1) Bangkok Indonesian School students understand financial management priorities,
- (2) Bangkok Indonesian School students are able to implement Microsoft Excel features, and
- (3) Bangkok Indonesian School students are able to integrate financial priorities that have been prepared with Microsoft Excel features responsibly.

## CLOSING

### Conclusion

The '*Financial Technology Literacy through the Use of Microsoft Excel*' training was conducted using the *Project Based Learning* method to help Indonesian Bangkok School students understand financial literacy integrated with Microsoft Excel software theoretically and practically. The output of this training is expected to develop learners in cognitive, psychomotoric, and affective aspects. The result of this research is that learners understand the priority of financial management and practice integrated with Microsoft Excel.

### Suggestions and Thank you note

#### Suggestions

Students are expected to apply their understanding of financial literacy in their daily lives by committing to adhere to the calculated percentages of financial priorities, which they should



calculate independently and then input regularly into a worksheet. Additionally, teachers are encouraged to continuously motivate students to consistently track their daily finances and enhance learning based on Microsoft Excel.

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