Language Learning Strategies in Online CLIL-Oriented Classrooms: Voices from Indonesian Higher Education Students

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Abstract. This research aims to analyze the students' language learning strategies (henceforth LLSs) in online CLIL-oriented classroom and to explore the students' suggestions toward their online learning in relation to their LLSs. Through a mixed-method, this research involved nineteen students who were enrolled in the psychology department's "International Class" at an Indonesian private university. Strategy Inventory for Language Learning (SILL) questionnaire was distributed followed by conducting semi-structured interview. The finding revealed that all of the participants utilized all of LLSs such as memory strategies, cognitive strategies, metacognitive strategies, affective strategies, and social strategies. Cognitive and metacognitive strategies were considered as the most dominant strategies used during online learning, while affective and social strategies were the least preferable strategies. Based on the student' response, this might be due to the fact that students are fully responsible for managing the overall learning process and evaluating their learning more frequently to achieve the learning goals, including content knowledge and academic language learning, when using online learning modes, either synchronous or asynchronous, Thus, some suggestions were addressed in terms of lecturers' scaffolding, structured pre-class activities and collaborative learning. In conclusion, the students adopted high cognitive and metacognitive strategies followed by compensation strategies and other strategies such as social, memory and affective strategies respectively. Yet,CLIL teachers were also suggested to provide online learning activities which also facilitate social strategies as it was deemed by students to have more active participation in online classes. This provides some insight and pedagogical suggestions how EFL teachers or content teachers to facilitate their students to have more effective learning process based on their learning strategies.

Keywords: *Language Learning Strategies; Online CLIL classroom; Students' voices*

INTRODUCTION

Several factors, including internationalization and global competitions, are influencing the continued growth of English as a language of instruction in higher education. As a result, some universities offer English proficiency as an added value to their graduates. The implementation of Content and Language Integrated Learning (CLIL) in language learning practices in higher education is recommended for this purpose (Arham & Akrab, 2018; Chostelidou & Griva, 2014; Fitriani, 2016; S. Lestari & Setiyawan, 2020). CLIL combines the teaching and learning of a specific university's major with a wide range of language skills to prepare students for future careers or to become academic experts. It calls for the integration of language and content in language learning at the tertiary level. In relation to this research, CLIL-oriented classroom refers to a teaching and learning process in which the content courses are delivered in English, so that the students are stimulated to learn both the content and the language (Banegas, 2018; Coyle et al., 2010; Satayev et al., 2022).

Unfortunately, the current pandemic has accelerated the implementation of technologies, forcing teachers to rethink and redesign tasks and activities suitable for the platforms that were available, regardless of both learners' and educators' technological readiness. Many universities needed to implement some form of online learning in order to maintain a high level of education while also ensuring the safety of both the students and the lecturers. CLIL is not easy to implement and takes considerable effort in real practices, especially when it comes to online learning (Kao, 2020). Moreover, the incorporation of ICT into education today calls for the rigorous planning of students' online learning. Teachers are forced to adapt to new learning platforms that neither allow them to physically monitor students' progress, nor ensure that students' learning enhancement are resulted from their own effort.

The most favored educational approach in recent years has been Content and Language Integrated Learning (CLIL) to improve both content learning and language learning. Most of the current research merely focus on the result of CLIL implementation, as it is called as product-oriented research (Baranova, Mokhorov, Kobicheva, & Tokareva, 2021; Costa & pladevall-ballester, 2020; Goris, Denessen, & Verhoeven, 2019; Graaff, Koopman, & Westhoff, 2007; Heras & Lasagabaster, 2015; van Kampen, Meirink, Admiraal, & Berry, 2017). However, there is a need for more process-oriented research (de Zarobe & Smala, 2020; Nikula et al., 2017) to investigate "What is taking place in the CLIL classroom and how can the approach be introduced in the classroom in a more effective way to enhance learning?"(Ruiz de Zarobe & Zenotz, 2018). These questions seem as driving questions for CLIL researcher and practitioner to look into details of the process of CLIL implementation. One of which is by analyzing the students' use of learning strategies in the classroom, and the way they use the learning strategies to foster the learning outcomes. It has been argued that language learning techniques are immensely necessary for the cognitively challenging environment of CLIL classes, which simultaneously emphasize language and content-subject learning (Jaekel, 2020).

According to Oxford (1990), learning strategies are steps taken by students to enhance their learning. To be more specific, learning strategies compromise specific actions taken by learners to make their learning easier, faster, more enjoyable, more self-directed and more effective as well as to deal with new situations and to achieve the targeted outcomes (Oxford, 1990, 2016, 2018; Pawlak & Oxford, 2018). In Oxford's well-established classification of language learning strategies (henceforth LLSs), called the Strategy Inventory for Language Learning (SILL), the learning strategies are basically divided into two major classes, direct strategies and indirect strategies. Direct strategies aim for dealing with new language, working with the language itself in a variety of specific tasks and situations. Meanwhile, indirect strategies are for general management of learning. Further, direct strategies consist of memory, cognitive, compensation, while indirect strategies include metacognitive, affective, and social. Those learning strategies are crucial for language learners as plentiful research has been reported to prove that language learning strategies are also as one of best predictors of learners' language achievements (Bruen, 2017; Habók et al., 2022; Keezhatta, 2020; Nazari & Warty, 2018; Park & Kim, 2017; Ranjan et al., 2021; Suwanarak, 2019).

In Indonesia, there has been an enormous number of studies concerning the successful implementation of CLIL in higher education (Arham & Akrab, 2018; Izzah et al., 2018; Sarip, 2019; Simbolon, 2016; Wijirahayu, 2019). Take an example, Simbolon (2020) investigating students' perceptions of CLIL practice in their Maritime English class. The findings of this study revealed that students had a better understanding of vocabulary in the field of Maritime. Students also expressed their satisfaction with the CLIL class. Furthermore, students articulated some additional experiences to have, such as authentic learning materials such as a fishing vessel and more visual materials. In the same vein, Sumartana et al. (2019) through their experimental studies, proved that CLIL has been successfully to improve the students' performance of presentation. The participants, the Mechanical Engineering students, also deliver positive perception on CLIL implementation. Nonetheless, research regarding the students' perceptions towards their learning strategies, especially in online CLIL-oriented classrooms, is still limited. Indeed, to fill this void, this research aims to discover the language learning strategies used by the students in online CLIL-oriented classrooms as well as to explore the students' voices toward their suggestions for their online classes. The research remained different from the previous studies due to several reasons including (1) the focus of study was the language learning strategies in CLIL setting so that teachers gained some insight on how to provide learning activities in accordance with the students' learning strategies; (2) the CLIL was implemented in online mode, instead of face-to-face instruction; and (3) the researcher also enriched the findings based on the students' perspectives. It is projected that the findings were more comprehensive than previous studies mentioned. Hence, the research questions are formulated as follows: What are language learning strategies used by the students in online CLIL-oriented classrooms? and What do the students suggest toward their online learning in relation to their LLSs? The result of this study also aims to fill the gap in literature regarding the process-based research. Additionally, as the implications,

this study is projected to give preliminary data for further improvement in online CLIL practices.

RESEARCH METHOD

The study used a mixed-method approach, which includes both quantitative and qualitative data collecting methods in order to reveal the research data from diverse aspects and triangulating data collected from different methods (Creswell, 2013; Creswell & Clark, 2018). Hence, it was expected that the research produces a bigger overall outcome and a better grasp of the research problems than either of each method alone.

Participants

Nineteen students who enrolled in the "International Class" of Psychology Department in one of the private universities participated in this study. In this context, the lecturers of International Class are projected to implement a CLIL-oriented classroom in which all of the content subjects are delivered in English. Further, the lecturers are attempting to implement the CLIL approach, since the main learning objectives are both content learning and language learning. Due to the current situation, all of the classes were facilitated online using LMS (learning management system), zoom meeting and other online platforms.

Research instruments

Two different research instruments were used including questionnaire and interview. The questionnaire consists of three parts. The first part aims to collect the participants demographic data, while the second part is 50 close-ended questions of Strategy Inventory for Language Learning (SILL) adapted from (Oxford, 1990). The researcher did not make any changes to the instruments as it is considered as standardized instrument with high level of validity. It was proven and adopted in various research around the world as well (Danko & Dečman, 2019; de Zarobe & Smala, 2020; M. Lestari & Wahyudin, 2020; Nesrine Aoudjit, 2018; Park & Kim, 2017; Ranjan et al., 2021; Saks & Leijen, 2016; Stander, 2020). SILL is a self-reporting questionnaire using 5 Likert scale to assess the learners' language learning strategies consisting of six main categories such as memory, cognitive, compensation, metacognitive, affective, and social strategies. The questionnaire consists of 50 items (9 items for memory strategies, 14 items for cognitive strategies, 6 items for compensation strategies, 9 items for metacognitive strategies, 6 items for affective strategies, and 6 items for social strategies). Further, the last partis open-ended question to explore the students' suggestion for their online learning. Additionally, to have further explanation, semi-structured interview was employed to selected participants.

Data collection and analysis

In order to collect the data, the questionnaire was distributed online. After administering the questionnaire, the result of the questionnaire was analyzed statistically and descriptively. The statistical analysis was conducted using JASP. To answer the first research question, descriptive statistics was conducted to figure

out the means, standard deviation and the frequency of use for the learning strategies employed by the participants. To classify the level of the frequency of use, each response was tabulated under five categories as it was adopted from Ariffin, Halim, & Darus (2021). The details are shown as follows:

Table 1. Five Categories Of Responses Based on The Mean Score

Total of mean score	Categories
1.00 – 1.80	very low
1.81 – 2.60	Low
2.61 – 3.40	Medium
3.41 – 4.20	High
4.21 – 5.00	very high

Meanwhile, to answer the second research question, to explore the students' suggestion toward their online learning activities in relation to their LLSs, a semi-structured interview was administered online through a zoom meeting for several participants in accordance with their responses on the questionnaire. Thus, the result of the interview was treated qualitatively using thematic analysis.

RESULT AND DISCUSSION

Language Learning Strategies Used by Students in Online CLIL-Oriented Classrooms

In this research, the language learning strategies were formulated in accordance with Oxford (1990). Two major classifications consist of direct strategies (memory, cognitive and compensation strategies) and indirect strategies (metacognitive, affective and social strategies). Based on the data collected, the following table illustrates the mean scores and the level of use of the six English language learning strategies by the students in online CLIL-oriented classrooms.

Table 2. The Overall Result Of Language Learning Strategies Employed by The Students

Descriptive Statistics

	Memory strategies	Cognitive strategies	Compensation strategies	Metacognitive strategies	Affective strategies	Social strategies
Valid	19	19	19	19	19	19
Missing	0	0	0	0	0	0
Mean	3.071	3.619	3.422	3.590	2.896	3.272
Std. Deviation	0.486	0.522	0.548	0.605	0.782	0.634
Minimum	2.000	2.710	2.170	2.330	1.170	2.330
Maximum	4.000	4.640	4.500	4.890	4.200	4.830
Level of use	medium	high	high	high	medium	medium
Ranked	5	1	3	2	6	4

Based on the data from Table 2, the students basically employed all of the six strategies including memory strategies, cognitive strategies, metacognitive strategies, affective strategies, and social strategies. Additionally, during online learning, the students mostly used cognitive strategies, compensation strategies and metacognitive strategies as it was shown in high level of frequency of use, followed by memory strategies, affective strategies and social strategies with medium level. Further, based on the overall mean scores, cognitive strategies (M= 3.619) were ranked as the most dominant language learning strategies used by the students, followed by metacognitive strategies (M=3.590) and compensation strategies (3.422) respectively. Meanwhile, affective strategies (M=2.896) were considered as the least popular strategies used during online learning.

In more detailed explanation, identifying closely to cognitive strategies (see Table 3), three dominant strategies used were 'I watch English language TV shows spoken in English or go to movies spoken in English' (M=4.37), 'I practice the sounds of English' (M=4.16) and 'I try to talk like native English speakers' (4.05). Meanwhile, for metacognitive strategies (see Table 4), three dominant strategies used were 'I pay attention when someone is speaking English' (Mean=4.16), 'I try to find as many ways as I can to use my English' (Mean=4.00), and 'I notice my English mistakes and use that information to help me do better' (Mean=3.79).

Table 3. The Frequency of Use "Cognitive Strategies" Based on the Mean Score

Statement	Mean	SD	Strategy
I say or write new English words several times.	3.42	1.12	high
I try to talk like native English speakers.	4.05	0.91	high
I practice the sounds of English.	4.16	0.83	high
I use the English words I know in different ways.	3.63	0.95	high
I start conversations in English.	3.47	1.02	high
I watch English language TV shows spoken in English or go to movies spoken in English.	4.37	0.83	high
I read for pleasure in English.	3.63	1.12	high
I write notes, messages, letters, or reports in English.	3.58	0.96	high
I first skim an English passage (read over the passage quickly) then go back and read carefully.	3.74	0.93	high
I look for words in my own language that are similar to new words in English.	3.47	0.96	high
I try to find patterns in English.	3.21	0.85	medium
I find the meaning of an English word by dividing it into parts that I understand.	3.26	1.10	medium
I try not to translate word-for-word.	3.74	1.05	high
I make summaries of information that I hear or read in English.	2.95	1.03	medium

Table 4. The Frequency of Use "Metacognitive Strategies" Based on the Mean Score

Statement	Mean	SD	Strategy
I try to find as many ways as I can to use my English.	4.00	0.82	high
I notice my English mistakes and use that information to help me do better.	3.79	0.79	high
I pay attention when someone is speaking English.	4.16	0.76	high
I try to find out how to be a better learner of English.	3.74	0.99	high
I plan my schedule so I will have enough time to study English	2.58	1.07	medium
I look for people I can talk to in English.	3.58	0.96	high
I look for opportunities to read as much as possible in English	3.68	1.06	high
I have clear goals for improving my English skills.	3.32	1.29	medium
I think about my progress in learning English.	3.47	1.02	high

The Students' Suggestions Toward Their Online Learning in CLIL-Oriented Classrooms in Relation to Their LIss

In the interview section, the participants were asked to deliver suggestions toward the teaching and learning activities in online classes. Their suggestion was in relation to their learning activities that were suitable with their LLSs. Further, the suggestions were not specified into specific language learning strategies since the students possibly used several LLSs simultaneously. Thus, the data coming from interviews were coded and analyzed into the following themes: (1) more scaffolding from teachers; (2) more structured individual pre-class tasks; and (3) more group work and collaborative learning activities. Each of the themes was discussed as follows.

Increased Scaffolding from Teachers

Based on the result of the interview, one of the students stipulated the difficulties in understanding certain courses because he gained (and the rest of students in online classrooms) limited time to ask the teacher due to time allotment. He stated that on certain topics, the teacher did not really help the students to understand materials. Even so, the student felt that the language instruction was not really clear. In more detail, it is shown in the following excerpt.

Extract 1:
Because I think the materials of the courses are basically difficult to understand and we have only a few times to have lecture sessions from our lecturers such as in Applied industrial and organizational psychology…and somehow our lecturer's English was a bit difficult to understand, so it's hard to really digest the materials.
(Student 13, interview transcript)

It is also supported by other students that in certain lessons, they need to use Bahasa Indonesia to ease their understanding and to accomplish complex learning tasks.

Extract 2:

The lecturer's lack of fluency in English hindered me from understanding the materials completely. Maybe, the lecturers can combine the use of English and Bahasa Indonesia. (Student 4, interview transcript)

Extract 3:

Almost all of my courses are delivered in English, but sometimes it's okay for us to use Bahasa Indonesia especially for some courses which require us to have direct contact with many people (e.g. assessment course) or the course that combined with another class (forensic psychology, civics). The courses that are delivered in English are Positive Psychology, Personality Assessment, Intelligence Assessment, KAUP, Aptitude Assessment, and Experimental Psychology. (Student 11, interview transcript)

More Structured Individual Pre-Class Task

Since the students have limited time in online learning such as zoom meetings, they needed more individual learning activities to comprehend the content materials before class. Student 2 suggested that it was better for them to have individual tasks before participating in synchronous learning activities with the lecturer and the whole class. One of the considerations is that they were able to find out various learning sources and media such as reliable internet sources, You-tube, academic journals and many more to elevate their understanding to the new content courses. One of the pieces of evidence is shown as follows:

Extract 4

I always find another material from many platform (e.g. journal, YouTube channel and etc.) to support my knowledge because sometimes relying on the material provided by the lecturer is not easy to understand or not detailed it's all because we've limited time to learn and for me sometimes the condition of my environment while online learning is not too good (hard for me to get my concentration). (Student 2, interview transcript)

Extract 5

I think the lecturers should set up the materials and the learning outcomes in every week through our LMS, so we can manage our learning time... (Student 13, interview transcript)

Extract 6

When the lecturers ask me to read the materials from LMS, for me itself, sometimes I search and watch a video that explains the same topic, it will be helping me understand more deeply because sometimes different people have a different perspective and material delivery. another method i use, searching a lot of journals and another book. (Student 4, interview transcript)

Further, based on the excerpt, it can be inferred that the students are required to have more guided and well-planned learning activities or learning tasks

before they join a synchronous online classroom. The students felt it was more convenient to learn the material individually before class by utilizing several learning sources and media. Thus, the lecturers are suggested to design the materials and learning activities for pre-class activity every week through the LMS (Learning Management System) as well as to determine the learning objective of each material.

More Group Work And Collaborative Learning Activities

Some students also suggested having more group work in online CLIL-oriented classrooms since students believed that they could comprehend the materials with their friends and the learning activities would be more challenging. Such as in the case of student 7, she claimed that most of the online classes were in direct lecture from the lecturers, she deemed to have more variative group work activities. The evidence is shown as follows:

Extract 7:
In many courses, such as applied social psychology, abnormal psychology and other courses, the teachers only gave us direct lectures. Perhaps, in a certain meeting, the teacher asked us to have a presentation as our task. They gave us a handout or materials, and then we had a group presentation. I think we need more group work activities, not only presentations. So, I have more time to learn the materials with my friends and do the task in a team. (Student 9, interview transcript)

Besides, students proposed that the classes should be more student-centered instead of teacher -centered. So that, they could do several collaborative learning in terms of group project, practicum or other form of group task as it was stated by the student 8 and student 5 as follows:

Extract 8:
Online lectures, in my opinion, force students to participate in learning that is genuinely student-centered indirectly [asynchronous] *because it has become a requirement during this pandemic. But for direct online meetings* [asynchronous], *I hope we can be more active in the class.* (Student 13, interview transcript)
Extract 9:
I think the lecturers should provide more activities that require students to be more active in the class, rather than the lecturer, so… we can be more active and have more opportunity to discuss the materials in group projects, practicum perhaps…. (Student 5, interview transcript)

Discussion

From the findings, it was indicated that all of the students who participated in online CLIL-oriented classrooms used all of learning strategies, both direct strategies and indirect strategies including memory strategies, cognitive strategies, metacognitive strategies, affective strategies, and social strategies. This is in line

with some previous studies from Iksan (2021), Lado and Wright (2017), Sugiartha, (2021), Sulaiman (2020) and Thekes (2016). Besides, it is also consistent with Oxford's (2018) finding that indirect and direct strategies are related to one another since learners frequently combine them. Regarding the given responses, the university students who joined online CLIL-oriented classrooms adopted cognitive and metacognitive strategies more favorably compared to other strategies. Cognitive strategies were considered as the most frequently used strategy. This can be explained by the fact that throughout the online learning process, students regularly accessed the course in their LMS to study, and this specific online course required students to regularly access learning materials and complete exercises and quizzes in order to get grades. As a result, it actively encouraged cognitive abilities, especially elaboration techniques. Before summarizing, taking notes, and fully understanding many lessons on their own, students had to thoroughly go over the course materials. High cognitive abilities were needed for this task in terms of both content knowledge and language skills as it is also clarified by Kuama (2016). This supports the inherent CLIL approach as 'dual-focus' learning activities, content and language learning (Coyle et al., 2010; Dalton-Puffer, 2011; Mehisto et al., 2008).

Additionally, the findings also revealed that students' use of metacognitive strategies was the second most common strategy. In this term, to manage the overall learning process, the students employed several techniques such as identifying their learning preferences and needs, gathering and organizing learning resources (both online sources or other reliable learning sources), planning for task completion, managing a variety of tasks, assessing their performance, managing and paying attention for errors, and evaluating learning activities. Thus, university students who have previously gained a great deal of experience using specific learning strategies to obtain better results, they can decide what learning plan they will have and evaluate it jointly. The use of cognitive strategies is mutually exclusive towards metacognitive strategies in language learning (Javed & Ali, 2018). Cognitive strategies are believed to successfully improve the learners' L2 proficiency while meta-cognitive strategies are considered as strong predictors to examine the proficiency of L2 learners (Jarosz, 2021; O'Malley & Chamot, 1990). In relation to online CLIL-oriented classroom in this research, it can be inferred that cognitive and metacognitive strategies adopted dominantly by the students were congruent with the findings of Jarosz (2021), Javed and Ali (2018) and O'Malley and Chamot (1990) highlighting that metacognitive strategies might have a positive, consistent, and considerable impact on the use of cognitive strategies and successful completion of any task. As a result, the language learning strategies possessed by the students were expected to achieve the core principle of CLIL classrooms in which content-based language learning methodologies in language classes enhance the development of content knowledge while foreign language improvement is also encouraged in subject classes (Yang, 2015, 2018).

Meanwhile, social and affective strategies were ranked as the least preferred learning strategies in their online CLIL classroom. It is opposing to the work of Shen and Chiu (2019), Taghinezhad, Azizi, Shahmohammadi, Kashanifar, and Azadikhah (2016) and Yunus and Singh (2014) stipulating that by utilizing social

strategies, students learn better when they were working in groups and had more opportunity to practice their skills. In this research, it can be explained that in an online environment, the interaction between students and teachers was limited. The students had limited time to practice their language competence and even discuss with their friends to comprehend the content knowledge. Thus, it was also discouraged students to utilize other affective sub-strategies such as lack of opportunity to practice communication skills.

Additionally, there is a need to explore the students' suggestions in relation to their learning strategies and learning style toward the learning activities in classrooms, especially within online CLIL learning mode (Broadbent & Poon, 2015). Since English language learning strategies are closely related to the learning style, the teaching and learning activities are projected to accommodate their learning style to enhance the learning outcomes. Firstly, the student provoked that they need more scaffolding from lecturers to comprehend the content. The lecturers were suggested to use various scaffolding strategies in CLIL teaching. One of which is by using the students' L1 (Bahasa Indonesia) to help students to make meaning and to increase the students' understanding in several high cognitive complexity of learning tasks (Li & Zhang, 2022; Liu, 2020; Mahan, 2022). This help, called as translanguaging (Kao, 2020; Lin & He, 2017), basically provides pedagogical scaffolding for learning both content knowledge and academic language. Thus, language-supportive scaffolding is likely to help students avoid cognitive overload when they are simultaneously processing both language and content in CLIL situations (Carloni, 2018). Secondly, the students confirmed that they had to have more self-directed learning activities before class. Some of them felt comfortable learning the materials from various learning sources and media such as video, journal articles, reliable websites and many more. In online learning mode, the students should be stimulated to have more autonomous learning so that they are also facilitated to adopt their learning strategies, in this context, metacognitive strategies. By designing a well-planned LMS, which includes learning objectives, learning activities, learning materials and evaluation of learning on the LMS platform, it is hoped that students can have more structured learning before participating in synchronous learning and evaluating their learning achievement as well. In other words, students have ample opportunity to learn the materials better during asynchronous learning activities since online environment is fully autonomous (Khoiriyah, 2021; Wong et al., 2019).

Additionally, to support academic language development and content learning, having more collaborative learning were deemed by students. The university students believe that speaking with others might help them consistently enhance their language abilities as well as master the content subject. It basically supports the foundational principles of CLIL which emphasis on fostering group work and collaboration among students (Yamano, 2013). Through collaborative learning, the students engaged in meaningful experience learning within a cognitively demanded CLIL-oriented tasks. The students can learn better from one another (Lee & Martin, 2019; van Leeuwen & Janssen, 2019; Yamano, 2013). This might have sped up their academic vocabulary learning as well as the content

comprehension. Besides, it also facilitates students to employ their learning strategies, especially cognitive and social strategies. Lastly, since CLIL was delivered in online mode, students learning autonomy and motivation might play an important role. Motivation, on the other hand, is a potentially influential factor in the selection and use of learning strategies. As a result, it may have an impact on the development of both content comprehension and language skills as well as the learners' autonomy. Thus, CLIL teachers also suggested improving the students' learning motivation.

CONCLUSION

The research might shed some light on the language learning strategies employed by learners in CLIL-oriented classrooms, specifically during online learning. The students basically applied all of the learning strategies both indirect and direct strategies such as memory strategies, cognitive strategies, metacognitive strategies, affective strategies, and social strategies. Indirect and direct techniques are related to one another since learners typically combine them. Further, in detail analysis based on the result of mean scores, different from common EFL face-to-face classes, the finding revealed that the students adopted high cognitive and metacognitive strategies followed by compensation strategies and other strategies such as social, memory and affective strategies respectively. Students employed cognitive and metacognitive strategies in high levels of frequency of use. This might be because the students have an online learning mode, either synchronous or asynchronous, they are fully responsible to manage the overall learning process and evaluate their learning more frequently to achieve the learning goals, both content and academic language learning. Besides, some courses which are provided in online platforms require high cognitive abilities to accomplish the learning task. However, the least preferable learning strategies in their online CLIL classroom were social and affective strategies because they had limited time allotment to have interaction with the teachers as well as their peers, hence they were discouraged to practice their language and even comprehend the content materials with other students.

Further, the result of this current research might provide some useful pedagogical implication for implementing CLIL approach, especially in online learning mode. Learning strategies are crucial to accelerating the acquisition of foreign languages and also digesting the content knowledge; as a result, teachers are advised to assist students in using their learning strategies to succeed academically in online settings. Within the context of this research, from the students' responses, some suggestions are highlighted including providing more scaffolding for students in comprehending academic language and content, encouraging students to have more structured autonomous pre-class learning activities, and initiating more group works and collaborative learning. Additionally, it is immensely important that EFL teachers or content teachers in CLIL classrooms should be well-informed regarding the types of learning strategies that a particular group of students employ. Hence, they are able to decide and emphasize the kinds of learning strategies and learning activities that students are required to do. Finally, although this research compromised a small number of respondents, the

insight and pedagogical implication presented should be helpful for foreign language lecturers and teachers or even content lecturers who want to use the CLIL approach, particularly in the online learning mode. Lastly, further research is projected to examine the correlation between LLSs and learners' academic achievement and to explore other predictors of student's academic achievement in online environments and other CLIL contexts in Indonesian EFL settings.

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