The Analysis of Cognitive Levels of Thai EFL Students[1]

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Abstract

Cognitive skills are commonly considered to be one of the most important sets of skills in academic performance. These skills not only contribute toward understanding new knowledge, but also have an effect on internalizing and generating feedback to certain information. Because cognitive skills are the essential skills for students' learning throughout their years of study, the levels of their cognitive skills might have to be seriously considered. This research aims to investigate Thai university students' cognitive levels by conducting peer evaluation activities. The results of the experiment were analyzed based on the Revised Version of Bloom's Taxonomy and showed that the students' average cognitive levels are remembering and understanding levels, which are comparatively elemental levels. Since cognitive skills are deemed significant in academic performance, our research may foster teachers to improve the students' cognitive skills.

Keywords: Cognitive skills, cognitive level, peer review, Bloom taxonomy, EFL

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บทคัดย่อ

ทักษะทางปัญญา (cognitive skills) เป็นหนึ่งในทักษะที่มีความสำคัญต่อความสามารถทางวิชาการ ทักษะดังกล่าวไม่เพียงแต่ส่งเสริมความเข้าใจในความรู้ใหม่ที่เกิดขึ้น แต่ยังมีส่วนช่วยให้นำคำวิพากษ์วิจารณ์ที่ได้รับ (feedback) มาประมวลผลให้เกิดข้อมูลชุดใหม่ที่แน่ชัด เนื่องด้วยงานวิจัยฉบับนี้ได้เล็งเห็นว่าทักษะทางปัญญา ยังเป็นทักษะที่จำเป็นต่อการศึกษาของผู้เรียนในแต่ละชั้นปี ดังนั้นทักษะที่ว่านี้จึงสมควรได้รับการศึกษาอย่างจริงจัง ด้วยเหตุนี้ งานวิจัยฉบับนี้จึงมีวัตถุประสงค์เพื่อศึกษาระดับทักษะทางปัญญา (cognitive level) ของนักศึกษาไทย ผ่านกิจกรรมการประเมินผลความสามารถโดยผู้ร่วมชั้นเรียน (peer evaluation) อีกทั้งทฤษฎีการเรียนรู้ของบลูม (Bloom Taxonomy) ได้ถูกนำมาใช้เพื่อการวิเคราะห์ผลการศึกษาที่ปรากฏ ผลการศึกษาของวิจัยฉบับนี้ชี้ให้เห็นว่าค่าเฉลี่ยของระดับทักษะทางปัญญาของนักศึกษาเมื่อผ่านการวิเคราะห์โดยทฤษฎีการเรียนรู้ของบลูม (Bloom Taxonomy) แล้ว อยู่ที่ระดับจดจำ (remembering) และเข้าใจ (understanding) ซึ่งถือได้ว่าเป็นระดับพื้นฐาน เนื่องจากทักษะทางปัญญามีความสำคัญต่อความสามารถทางวิชาการของผู้เรียน ดังนั้นงานวิจัยฉบับนี้อาจมีส่วนช่วยให้คณาจารย์นำผลของการศึกษาไปประยุกต์ใช้เพื่อพัฒนาทักษะของผู้เรียนให้ดียิ่งขึ้น

คำสำคัญ: ทักษะทางปัญญา ระดับทักษะทางปัญญา การประเมินผลความสามารถโดยผู้ร่วมชั้นเรียน ทฤษฎีการเรียนรู้ของบลูม ภาษาอังกฤษในฐานะภาษาต่างประเทศ

1. Introduction

Cognitive skills are “the ability to think and learn” and integrate with perception, attention, memory, language, thought and logical reasoning (Pattapol, 2015; Plessis, 2018). As stated by Cattell in 1987, cognitive skills are believed to be the foundation for advancing academic performance (as cited in Peng & Kievit, 2020). Puerta (2015) supported that high cognitive skills are associated with strong academic performance. Due to a mutual relationship between academic performance and cognitive skills, acquiring knowledge and skills can influence students' improvement and the effectiveness of educational practices and policies (Fin, Kraft, West, Leonard, Bisch, Martin, Sheridan, Gabrieli, F. & Gabrieli, D., 2014). Since cognitive skills can reflect an actual performance of a student as well as a teacher’s teaching, many educators and researchers

conduct frameworks and theories, such as Bloom's taxonomy, measuring cognitive levels to trace academic performance.

The Glossary of Education Reform stated that “Bloom’s taxonomy is a classification system used to define and distinguish different levels of human cognition—i.e., thinking, learning, and understanding” (2014). Bloom’s taxonomy was developed in 1956 by Benjamin Bloom, an educational psychologist, and his colleagues to encourage the formation of thinking in education focusing on cognitive skills (Rasool & Smyth, 2014). Adams (2015) and Adesoji (2018) additionally explained that Bloom’s taxonomy can classify cognitive skills into two levels according to a cognitive domain with the hierarchical arrangement. The first is lower-order skills which require shallow cognitive processing, and the second is high-order skills where cognitive processing is profoundly required. The Figure 1 presents Bloom’s taxonomy.

Figure 1: Cognitive levels’s Bloom’s Taxonomy

Figure 1 illustrates the six stages of cognitive levels, which are knowledge, comprehension, application, analysis, synthesis, and evaluation (Rasool & Smyth, 2014).

In half a decade, Anderson and Krathwohl established the revised version of Bloom’s Taxonomy, which was changed into three broad categories, terminology, emphasis, and structure (Forehands, 2005 as cited in Darwazeh & Branch, 2015). The comparison between the new and the old versions is indicated in Figure 2.

Figure 2: Comparison between Bloom's taxonomy (1956) and the revised version of Bloom's taxonomy (2001)

Figure 2 presents that firstly, the original terminology was changed by Anderson and Krathwohl by shifting Bloom's categories from nouns to verbs (gerund form), and renaming knowledge to remembering, comprehension to understanding and synthesis to creating. Secondly, the revised version considered two dimensions, which are knowledge and cognition instead of one, a product dimension, in the original Bloom's Taxonomy (Darwazeh & Branch, 2015). Lastly, it was described that the first three levels in the cognitive domain, remembering, understanding, and applying could be a criterion for criticizing the cognitive skills regarded as lower-order of thinking while the next three stages, analysing, evaluating, and creating belong to the criterion for higher-order of thinking (Adesoji, 2015). Since the revised version added the focus of cognitive processes and adopted the criteria to judge cognitive skills, the revised taxonomy might be a more suitable measuring tool for cognitive levels.

The revised version of Bloom's taxonomy was popularly adopted to "identify cognitive levels, processing levels of objectives, and assessments irrespective of assessment type (e.g., multiple choice or open-ended response)" (Momsen, Long, Wyse & Ebert-May, 2010, p. 436). Chandio, Pandhiani, & Iqbal (2016) found that 42% of the English examination questions in three high schools in Pakistan were focused on lower cognitive levels, remembering and understanding due to the inefficiency of the paper setter. Momsen, et al., (2013) supported these low cognitive levels of the questions in the courses of Introductory Biology and Introductory calculus-based

Physics. Many previous studies have observed students' cognitive levels through assessments, yet the direct investigation on students' cognitive levels has been limited.

To examine students' cognitive levels, this study found that peer criticism may be employed as an instrument. As suggested by Holt (1999), peer criticism may reflect on a peer's cognitive level in terms of understanding of the work in a collaborative classroom (as cited in Tahir, 2012). Peer criticism aims to evaluate and comment on the advantages and drawbacks of a work in order to advance that work, and enables the learners to reflect on their learning experiences and their abilities to comprehend and criticize the work. Ellman (1975) suggested that peer reviews enhance the critical thinking skills of the peer reviewer and provide in-time feedback to the peer reviewee due to an increase in thinking, comparing, contrasting and communicating time about learning assignments (Topping, 1998 as cited in Lu & Law, 2017). College-level faculty is engaged in monitoring students' in-class learning performance and assessment skills through peer evaluation, which increasingly entrusts students with either their own learning or their peers' learning (Nilson, 2003). Thus, peer criticism is commonly implemented on students in college-level educational institutions to monitor their cognitive levels. According to the research of Lam in 2010, when students are assigned to perform peer review in an academic activity, students tend to be more concentrated on each other's performances, and thus, an efficient platform for observing the students' cognitive skill will be created.

According to the literature review, most of the discussion reveals a positive expectation towards implementing peer evaluation on students because of the mutual benefits between them. However, the effectiveness of conducting peer evaluation seems to need more precise exploration as students may not be professional enough to well-grasp a work, and give valid feedback (Lam, 2010). To probe at what level the students could understand a peer's work and make constructive reflection, an experiment of reviewing and analyzing the students' peer evaluation sheets was conducted.

The purpose of this study is to analyze cognitive levels of the fourth-year EFL students studying in English major of the school of Liberal Arts at Mae Fah Luang University. Throughout four years of study, many courses such as Foundation of College English, English Reading and Writing, Comparative Study of English and Thai, Public Speaking, etc. require the students to remember and understand contexts, apply theories, analyse and evaluate tasks, and create new products or materials which means the participants have already familiarized themselves with all six cognitive levels of Bloom's taxonomy. Various kinds of assessments have been designed, challenging students to apply their cognitive skills. Peer evaluation forms are an assessment tool allowing students to utilize their cognitive skills when giving feedback on peer performance. Cognitive skills are required when examining the quality of the peer reviewee's performance by using reasoning to support their arguments. However, the validity and credibility of feedback may need further exploration as the peer reviewers may not be professional enough. Hence, using cognitive level to investigate at which level students can grasp other's work and generate credible comments can reflect on the peer reviewers' cognitive competence since comments produced on a higher cognitive level will reasonably be more effective.

This study aims to answer the question: what are the cognitive levels of the fourth year EFL students studying English Major in the School of Liberal Arts at Mae Fah Luang University?

2. Methodology

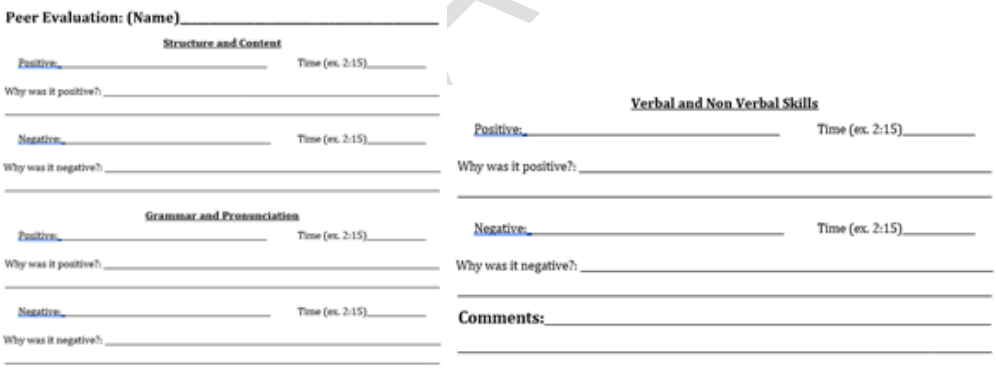
Participant

The thirty-one EFL fourth-year students majoring in English and taking the course titled Public Speaking were the observed participants of the current study. This subject was taught in the first semester of 2020 at Mae Fah Luang University and required every student to perform a peer evaluation after delivering a speech performance. During four years of university education, the participants had experienced evaluating their peer's academic performances via a paper form, distributed in various courses, e.g., Foundation of College English, English Reading and Writing, Presentation, and Academic Writing. However, they had not been strictly trained by their instructors,

for doing the peer evaluation was purposely conducted as an assessment for encouraging them to exploit their critical thinking to assist their peer's performance development in the classrooms.

Peer Evaluation Form

The peer evaluation form was used as an instrument since the form provided questions encouraging students to use their cognitive skills. Figure 3 indicates the form, which is divided into three sections, structure and content, grammar and pronunciation, and verbal and non-verbal skills. These three sections could be used to measure the participants' cognitive levels since they had to apply this schema to interpret and to analyze the questions. This process is associated with cognition. To illustrate, the form provided questions such as: "what and why was it positive and negative?" The WH-questions invite the participants to think and write about their peers' performance, and to identify the positive and negative attributes of their peers by using reason and logic to support their claims, and thereby, processing and applying their cognitive skills. As supported by Plessis (2018), "Cognitive skills include perception, attention, memory and logical reasoning."


Peer Evaluation: (Name)_____

Structure and Content

Positive:_____ Time (ex. 2:15)_____

Why was it positive?: _____

Negative:_____ Time (ex. 2:15)_____

Why was it negative?: _____

Grammar and Pronunciation

Positive:_____ Time (ex. 2:15)_____

Why was it positive?: _____

Negative:_____ Time (ex. 2:15)_____

Why was it negative?: _____

Verbal and Non Verbal Skills

Positive:_____ Time (ex. 2:15)_____

Why was it positive?: _____

Negative:_____ Time (ex. 2:15)_____

Why was it negative?: _____

Comments:_____

Figure 3: Peer evaluation form

3. Data Collection

Data collection was conducted in the Public Speaking course, which consisted of thirty-one participants. The data collection process was divided into two sessions: the peer evaluation for an informal speech titled "An interesting story", and an informative speech. Each session of data

collection was conducted after an in-class graded speech activity, a regular event in the course schedule. After the in-class speech, the students would be assigned to complete a peer evaluation form, designed to help students identify the advantages and disadvantages of their peers' speech performances. The data collection process is shown in Figure 4. The students were expected to provide their opinions regarding their peers' performances by writing.

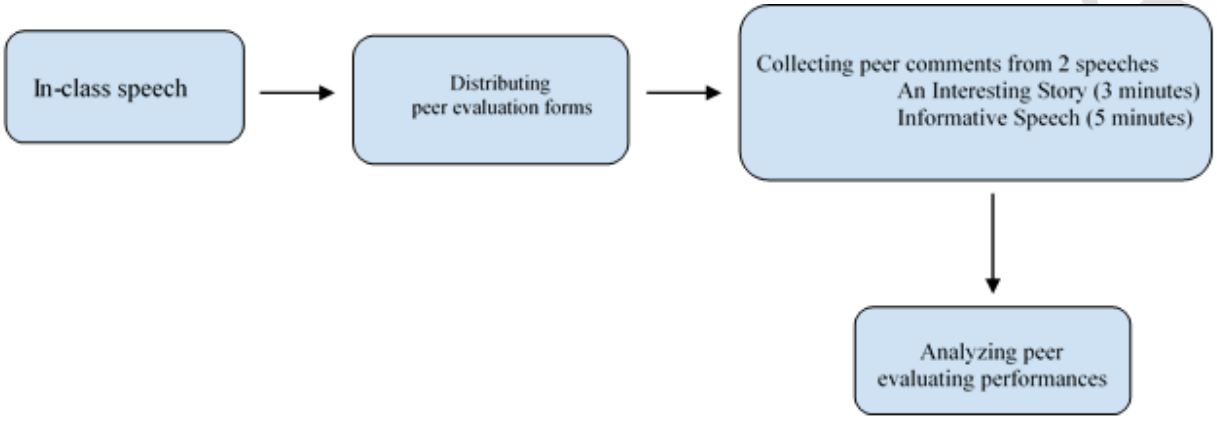


Figure 4: The process of data collection

In this data collection, the two observed speech performances were different in terms of speech type and length. The first observed speech was an informal speech with a time limitation of 3 minutes; on the other hand, the second observed speech was an informative speech with a time limitation of 5 minutes. In each peer reviewing activity, thirty-one peer evaluation forms would be collected; therefore, a total amount of sixty-two peer evaluation forms would be obtained. The collected data would be further categorized and analyzed to explore students' cognitive levels.

4. Data Analysis

The study employed a content analysis method using Bloom's Taxonomy revised version (Anderson & Krathwohl, 2001) as the criteria to analyze the cognitive levels of the participants. Content analysis method is research method used to determine the existence of certain terms, patterns, or ideas in certain qualitative results i.e., text (Columbia Mailman School of Public Health). Therefore, this research will only focus the analysis on the comments in peer evaluation form.

In Bloom's taxonomy revised version (Anderson & Krathwohl, 2001), there are six levels of cognitive skills, which are remembering, understanding, applying, analyzing, evaluating and creating. According to *Bloom's taxonomy* (Armstrong, 2016), the meaning and the key- action verbs of Bloom's taxonomy revised version (Anderson & Krathwohl, 2001) have been provided for identifying the cognitive levels of information, as indicated in the Table 1.

Table 1: Definition of cognitive levels and action verbs of Bloom's Taxonomy revised version (Anderson & Krathwohl, 2001)

Cognitive Levels	Student can be able to	Action Verbs
1.Remembering	To exhibit of memory previously studied information by recalling facts, words, simple concepts, and responses	Choose, define, find, label, list, match, name, omit, recall, relate, select, show, spell, tell
2.Understanding	To illustrate comprehension of facts and ideas by arranging, comparing, translating, interpreting, providing explanations, and stating key concepts	Classify, compare, contrast, demonstrate, explain, extend, illustrate, infer, interpret, outline, relate, rephrase, show, summarize, translate
3. Applying	To solve difficulties to new scenarios by adapting accumulated information, facts, strategies and rules in a different way	apply, build, choose, construct, develop, experiment with, identify, interview, make use of, model, organize, plan, select, solve, utilize
4. Analyzing	To examine and split data into components by determining motives or causes and to endorse generalizations by drawing inferences and finding proof	Analyze, assume, categorize, classify, compare, conclusion, contrast, discover, dissect, distinguish, divide, examine, function, inference, inspect, list, simplify, survey, take part in, test for

Cognitive Levels	Student can be able to	Action Verbs
5. Evaluating	To resent and defend viewpoints based on a set of criteria by making judgments about information, the value of concepts, or the quality of work	Agree, appreciate, assess, award, choose, compare, conclude, criteria, criticize, decide, deduct, defend, determine, disprove, estimate, evaluate, explain, influence, interpret, judge, justify, mark, measure, perceive, proritude, prove, rate, recommend, rule on, select, support, value
6. Creating	To compile knowledge in a different way by merging components or suggesting alternate ideas in a new pattern	Adapt, build, change, choose, combine, compile, compose, construct, create, delete, design, develop, discuss, elaborate, estimate, formulate, happen, imagine, improve, invent, maje up with, maximize, minimize, modify, original, originate, plan, predict, propose, solution, solve, suppose, test

This study only chose the action verbs as a guidance to analyze cognitive level for data analysis because according to Bloom's Taxonomy of Measurable Verbs (Modesto Junior College, 2006), this taxonomy of quantifiable action words was created to assist, define, and identify observable knowledge, skills, attitudes, behaviors and abilities. This theory is derived from the notion of observable actions' levels that show something is happening in the brain (cognitive activity). From Table 1, these verbs are the key-action verbs indicating the concept of each

cognitive level, yet they do not have to explicitly appear in sentences. To clarify, the meaning of each sentence is interpreted to match with the action verbs.

The data analysis process is presented in Figure 5; every sentence from peer evaluation will be classified into which cognitive level it belongs to.

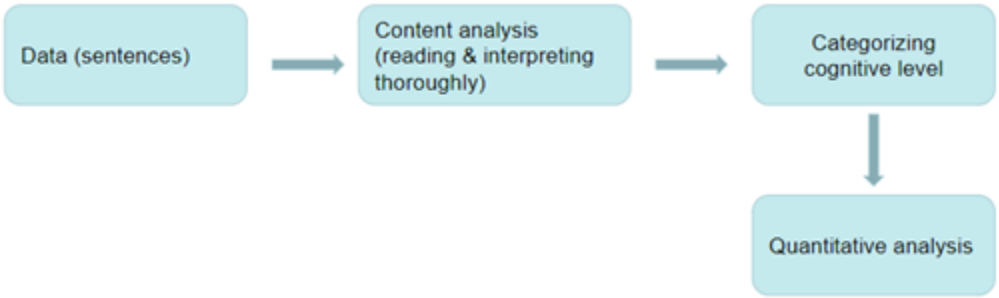


Figure 5: The process of data analysis

In the data analysis, the content analysis method will be employed; each sentence would be read and the overall meaning would be interpreted thoroughly so as to match with the key-action verbs. Then, the sentence will be categorized into the cognitive level it belongs to, based on the guidelines in the second column of Table 1. For example, "The speaker introduced the rising action before leading to the climax quite long." was interpreted as 'remember', a verb which belongs to the cognitive level of remembering since the phrase 'quite long' shows that the peer reviewer remembers that the speaker takes a long time before the climax point. Moreover, this study employed qualitative analysis to present examples of results, classified into cognitive levels. Then, frequency of cognitive level's occurrence of each sentence was counted and calculated in percentage (quantitative) and presented in a pie chart format.

5. Result

The results of this study are presented in two parts, qualitative and quantitative results. The qualitative results are presented to show some examples which were made by the participants. Then, the quantitative results are indicated to show the frequency of cognitive level's occurrences

found in peer evaluation form, and those numbers are counted into percent to emphasize a proportion of the results.

In the data analysis of this current study, most participants only employed the lower cognitive levels which are remembering and understanding according to the revised version of Bloom's Taxonomy for developing their cognition during doing the peer evaluation. However, there is no finding to suggest the use of cognitive skills in the levels of applying, analyzing, evaluating, and creating. The detailed analysis is presented as follows.

Remembering

According to the revised version of Bloom's Taxonomy, the cognitive level of remembering refers to some long-term memories which are recalled and recognized. Some key-action verbs, for example, "recall" and "tell", are to be utilized for classifying the cognitive level under remembering, as indicated in Table 1. Moreover, some sample sentences provided in the peer evaluation, related to the explanation and the two aforementioned sample key-action verbs of the cognitive level of remembering, are demonstrated in example 1-4.

1. Five elements *of story structure* ***was presented*** *(recall)*

2. ***I think*** *he walked too much in his storytel (recall)*

3.Talking about giving the stage to the next speaker ***is negative****. (tell)*

4. In my opinion, the organization of the speech ***is quite great****. (tell)*

The sentences in examples 1 and 2 were classified under the cognitive level of remembering, with the key-action verb, "recall", for the participants recalled simple concepts taught in class as well as facts occurring during the peer's performance, such as story structure and the speaker's

movements respectively. As for the sentences in examples 3 and 4, the verb phrases such as "*...is negative*" and "*...is quite great*" can explicitly exhibit the intention of the participants to state the perspectives on the peers' actions during presentation without a detailed explanation. Hence, it can be concluded that these examples are classified under the cognitive level of remembering, relating to the key-action verb, "tell".

Understanding

The cognitive level of understanding is secondarily found among the sentences in peer evaluation of the participants and more than one forms of explanation are employed to exhibit comprehension (Anderson & Krathwohl, 2001). Some verbs, e.g., explain, summarize, compare, and relate are the key-action verbs which can be utilized for classifying the sentences under the understanding cognitive level, as illustrated in examples 5-8.

> 5. *Thirdly, the speaker mispronounced the vowel sound in the final syllable of the word* ***'depression' (3:38)*** *as* /dɪˈpreʃʌn/ *instead of* /dɪˈpreʃən/*; moreover, the speaker also mispronounced the word* ***'inevitable' (5:26)*** *as* /ˌɪnˈevɪ.e.bəl/ *instead of* /ɪˈnevɪ.tə.bəl/ *for British pronunciation or* /ˌɪnˈev.ə.ɾə.bəl/ *in American pronunciation. (explain)*
>
> *6. She told the audience that she was talking about the history of* ***fashion*** *in her speech, and she will focus on the* ***definition***, ***history***, *and the* ***purpose*** *of the fashion during the speech to make the audience know the scope of the speech, and what the information they will receive. (summarize)*
>
> *7. The* ***suggestion*** *is the speaker may give a background that while many Thai people are suffering with the change during pandemic such as*

poverty and famine, King Rama 10 is living in happiness in Germany. (suggestion)

8. I think it could be better if she began to state the question ***relating to promoting peace and security in ASEAN before answering the contrasting idea relating to increasing numbers of people who were forced to disappear.*** *(relate)*

As seen in example 5, the sentence was classified under the level of understanding with the key-action verb, "explain", for it seemed that the participant was able to exactly explain the reasons why these errors occurred. To demonstrate, the errors in terms of mispronunciation of the vowel sound in the final syllable of the word *depression* in *3.38* and the mispronunciation of the word *inevitable* in *5.26* were explained. Also, the explanations of the aforementioned errors were sufficiently provided as indicated by the participant that the word *depression* was pronounced as */dɪˈpreʃʌn/* instead of */dɪˈpreʃən/* and the word *inevitable* was pronounced as */ˌɪnˈevɪ.e.bəl/* instead of */ɪˈnevɪ.tə.bəl/* in British pronunciation and */ˌɪnˈev.ə.ɾə.bəl/* in American pronunciation. For examples 6-8, they were also classified under the level of understanding with the key-action verbs, "summarize", "compare", and "relate" respectively. The participant who wrote the sentence in example 6 can summarize the overall scope of his or her peer's performance regarding *fashion* along with its *definition*, *history*, and *purpose*. In example 7, the participant could provide some information as suggestion to the peer. Obviously, the key-action verb, "relate", was used by the participant, observing that "...*relating to promoting peace and security in ASEAN before answering the contrasting idea relating to increasing numbers of people who were forced to disappear.*" This could show that the participant was able to provide his or her opinion regarding the performance of the peer.

The quantitative data were presented in pie chart style in Figure 6 below, including remembering and understanding levels.

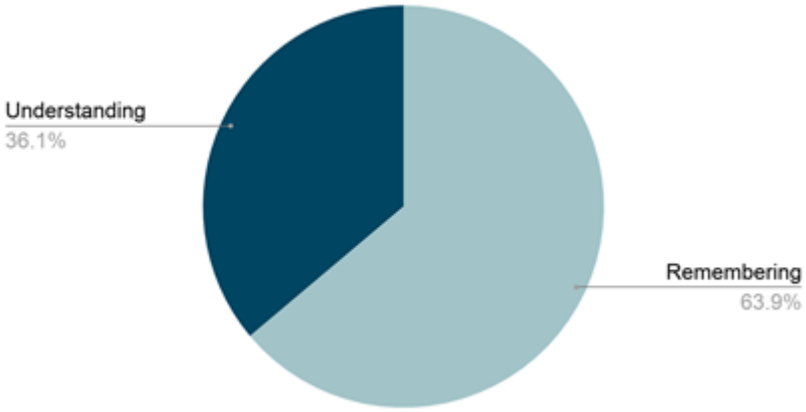


Figure 6: Pie chart of data proportion

From Figure 6, the number of sentences in each level was shown in percentage to precisely indicate the proportion of the participants' cognitive levels. From 100% (620 sentences), it is demonstrated that the cognition in the level of remembering is 63.9 in percent (396 sentences), and the cognition in the level of understanding is 36.1 percent (224 sentences). According to data, it could be noticed that the proportion of the level of remembering is higher than the proportion of the level of understanding.

6. Conclusion and Discussion

The cognitive skill levels of the participants were analysed via the peer evaluation form assigned in the Public Speaking Course. It was reported that the participants mostly established the cognitive skill in the level of remembering, followed by understanding according to the evidence in Figure 6. On the other hand, the cognitive skills in the levels of applying, analyzing, evaluating, and creating were absent. According to the findings, it may be concluded that the participants significantly possess the low levels of cognitive skills in doing the peer evaluation as their cognitive levels are only in the remembering and understanding levels.

The results of the current study are similar to the study of Roseli & Umar (2015), where they found that the majority of the participants only used low cognitive levels to evaluate each other; however, the researchers had actually constructed all six cognitive levels. The reason why they alter the application of cognitive levels was due to some influential factors, such as the evaluating questions and the subject of the courses.

To have a deeper exploration on the reasons why the participants possess low cognitive levels in doing peer evaluation, this study randomly interviewed several participants. It was discovered that the peer evaluation form, the teacher, and motivation might be the influential factors. Firstly, one of the interviewees said that doing peer evaluation required only low cognitive skills because the participants only had to identify what was obviously presented in their peers' speech performances, such as the peer's grammatical errors. This might obstruct them from developing new ideas, and also limit them to apply higher cognitive levels. Moreover, another possible factor is the teacher. It was found in the interview that the teacher did not encourage students to write the peer evaluation, yet since the observed course is the Speaking Course, the teacher tended to promote students to evaluate the performances verbally in class. Khorsand (2009) supported that teachers might not expect or demand students to apply higher cognitive skills to evaluate their peers (p. 14). As a result, students are more likely to perform the peer evaluation verbally instead of writing peer evaluation with less intensification. The last factor found in the interview session is the lack of motivation in doing peer evaluation. Willis (2019) defined that "motivation is a desire to learn, try, work and persevere." When students do not have passion, they will not be aware of the significance of doing peer evaluation; therefore, they may not spend much effort on doing peer evaluation. The interviewee added that the score of the peer evaluation activity was not high enough to motivate students to do it intentionally and thoughtfully. Accordingly, the reason that students do not usually apply higher cognitive levels to do the peer evaluation activity possibly relates to the peer evaluation form, teacher, and lack of motivation.

7. Recommendations

The findings of this study may effectively stimulate teachers to enhance the students' cognitive skills in performing peer evaluation. This study found that although the participants are EFL fourth-year students who have done the peer evaluation in many courses, they only reach the lowest two cognitive levels, remembering and understanding. This study believes that peer evaluation can reflect on students' cognitive skills in terms of understanding a peer's performance or work, yet the peer evaluation may not effectively reflect on students' actual cognitive skills. To clarify, when students comment on their peers' performances, the evaluation will probably be invalid because detailed suggestions are not given. Thus, in order to avoid an invalid evaluation, students have to be better equipped to reduce the impact of the aforementioned influential factors, which are the peer evaluation form, teacher, and motivation. Firstly, teachers may have to revise their peer evaluation instructions and teach students how to perform a peer evaluation step by step rather than providing them with the form and telling them to evaluate their peers. Secondly, teachers should instill an awareness towards peer evaluation by teaching students the mutual benefits of using high cognitive skills when writing a peer evaluation. As suggested by Seenak and Adunyarittikun (2019), self- and peer-assessment has contributed towards the improvement of intonation skills acquired through the courses taught (p.1). Lastly, teachers can encourage the students to value peer evaluation activities more by raising the assessment ratio. To conclude, due to the importance of cognitive skills in academic performance, this research may be beneficial for the teachers who would like to incorporate peer evaluation into one of the class's activities.

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