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STUDENTS' METACOGNITION PHENOMENON IN PEER TEACHING PROGRAMME 2016 AT STKIP PGRI JOMBANG

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Abstract

All students have strength and weakness but in metacognition, it is believed that the students must be able to solve their own weakness because they have the power of knowledge.That is the main aim of this research. I wanted to know know how well their metacognition to solve their own weakness in their teaching practice. I only investigated the level of their metacognition in the process of learning to learn or thinking to think namely: metacognitive knowledge and metacognitive regulation. This research carried out using descriptive research design. Students who took real teaching course in the seventh semester were the subject of my research. I wanted to get the real description of phenomenon of metacognitive awareness from the student teacher (candidate of teacher). The research was conducted in one group of peer teaching (group 11). This group consisted of 11 students. I chose this group because I myself who became the facilitator chosen by the developing education centre of STKIP PGRI Jombang. I neither did control nor treatment so I only described the characteristics and phenomenon by using the psychometric properties of MAI adapted from Schraw & Dennison. The findings were: the students were included in excellent level in procedural knowledge and debugging strategies, they were in good level in conditional knowledge, they were in enough level in declarative knowledge, planning, information management strategies, comprehension monitoring.

Key Words: Phenomenon, Metacognition, Peer Teaching, Knowledge, Regulation

Abstrak

Semua mahasiswa mempunyai kelebihan dan kekurangan terkecuali di metakognisi, disini diyakini bahwa mahasiswa harus bisa mengatasi kelemahannya sendiri karena mereka memiliki power dari pengetahuan. Itulah inti dari tujuan penelitian ini. Saya ingin tahu seberapa baik metakognisi mereka untuk mengatasi kelemahan mereka didalam praktek mengajar. Saya hanya mencari tahu level dari kognisi mereka dalam proses belajar untuk belajar atau berfikir untuk berfikir yaitu dengan metacognitive knowledge and metacognitive regulation. Penelitian ini menggunakan desain penelitian kualitatif. Mahasiswa yang mengambil mata kuliah peer teaching di semester 7 menjadi subyek penelitian saya. Saya ingin mendapatkan gambaran nyata dari fenomena kesadaran metakognitif mahasiswa calon guru. Penelitian ini dilakukan di kelompok 11 yang terdiri dari 11 orang mahasiswa. Saya memilih kelompok ini karena saya menjadi dosen pembimbing lapangan yang ditunjuk oleh Pusbangdik STKIP PGRI Jombang. Saya tidak melakukan kontrol ataupun perlakuan, saya hanya mendeskripsikan karakteristik dan fenomena menggunakan the psychometric properties of MAI yang saya adaptasi dari Schraw & Dennison. Temuan penelitian ini adalah: mahasiswa berada di level sangat baik untuk procedural knowledge and debugging strategies, mahasiswa berada di level baik untuk conditional knowledge, mahasiswa berada di level cukup untuk declarative knowledge, planning, information management strategies, comprehension monitoring.

Kata Kunci: Fenomena, Metakognisi, Peer Teaching, Pengetahuan, Aturan

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Students' Metacognition in Peer Teaching Programme 2016 at STKIP PGRI Jombang

Introduction

I often listen to my friends who talk about metacognition in their teaching mathematics. I am sure it has also benefit in teaching English. I am so curious to know further about it. I read many metacognitive journals and articles. After reading a lot, I get the point of metacognition. A teacher or a lecturer should lead students in "thinking to think" or "learning to learn". All students have strength and weakness but in metacognition, it is believed that the students must be able to solve their own weakness because they have the power of knowledge. The metacognitive strategy is so fantastic. The journals about metacognition which have inspired me are Steven V. Shannon (2008) who had conducted the research on using metacognitive strategies and learning styles to create self-directed learners, Raoofi et al (2014) who had conducted the research on metacognition in second/foreign language learning, Jayapraba (2013) who conducted research on metacognitive instruction and cooperative learning strategies for promoting insightful learning in science, Yoong (2002) who conducted the research on helping students to become metacognitive in mathematics. That is why I wanted to conduct research which had differences in subject and the aspect. Because I teach in education field especially in English Department, I took my students who were taking peer teaching in the seventh semester (group 11) to become my research subject in the aspect of metacognition in real teaching to know how well their metacognition to solve their own weakness in their teaching practice. I only investigated the level of their metacognition in the process of learning to learn or thinking to think.

Metacognition Defined

Metacognition refers to one's knowledge concerning one's own cognitive processes or anything related to them (Flavell, 1976). In other words, metacognition is a way of thinking to think or learning to learn. Metacognition is essential to successful learning because it enables individuals to better manage their cognitive skills and to determine weaknesses that can be corrected by constructing new cognitive skills. Almost anyone who can perform a skill is capable of metacognition. It means that they can think about how they perform that skill. Metacognitively aware learners are more strategic and perform better than unaware learners because they focus on five primary components: preparing and planning for learning, selecting and using learning strategies, monitoring strategy use, orchestrating various strategies, and evaluating strategy use and learning (Anderson, 2002). According to both Flavell (1979) and Kuhn (2000), metacognition is composed of both metacognitive knowledge and metacognitive regulation. Metacognitive knowledge is about cognition corresponds to what students know about themselves, strategies, and conditions under which strategies are most useful. Declarative, procedural , and conditional knowledge can be thought of as the building blocks of conceptual knowledge. Metacognitive regulation corresponds to knowledge about the way students plan, implement strategies, monitor, correct comprehension errors, and evaluate their learning.

Literature Review

I found that there are multiple research projects which have been conducted to investigate the use of metacognition. All the report findings give positive support to the implementation of metacognition. The first journal which I read was from Steven V. Shannon (2008) who conducted research in using metacognitive strategies and learning styles to create self-directed learners. He had done action research project within the three chemistry classes of the 40 students, there were 20 females and 20 males. Based on his findings, teaching students metacognitive strategies is a valuable skill that helps students become more self-directed learners. Before the study, the majority of the students did not give any thought to "how they learn" and what type of learning style they have. But now, these students are interested in developing a "study skills" course. Students were interested in trying the learning styles survey to help them "think about how they think". The second journal was from Husein Oz (2005) who had conducted research about metacognition in foreign/second language learning and teaching. There are 4 findings: (1) metacognition or "thinking about thinking" as referred to in the literature, is

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an internal process that has a direct bearing on students' learning experiences. It is comprised of metacognitive knowledge and metacognitive experiences, (2) learner beliefs are a crucial factor in the learning process as they can either enhance or impede instruction and learning, (3) metacognitive training involves a three-pronged approach. Teachers provide direct instruction and modelling, maintain on-going dialogues regarding metacognitive strategies, and allow students ample opportunity for metacognitive experiences. This manner of teaching deviates from conventional practices in that students become active learners and instructors become tutors, counsellors, or facilitators, (4) teacher education programs should involve the study of metacognitive awareness because pre-service teachers seldom apply their knowledge of metacognition when working with students in their field experiences. This is mainly due to the fact that they are products of traditional instructional methods, meaning that the larger part of their educational experience-elementary, secondary, and possibly university years-was spent developing passive learning skills. Teacher educators are in the position to begin this process, serving as role models and guides for preservice teachers who will then hopefully pass on their knowledge and skills to their students. The third journal was from Farrokhlagha Heidari (2012) who conducted research about the relationship between thinking styles and metacognitive awareness among Iranian EFL learners by using the psychometric properties of TSI and MAI which were administered at 100 Iranian senior undergraduate EFL students at the University of Sistan and Baluchestan and Islamic Azad University of Zahedan. Both teachers and students can benefit from the pedagogical implications derived from the results of this study. Teachers and students have to be aware that human beings possess a profile of thinking styles and utilize their abilities in different ways. The fourth journal was from Saeid Raoofi, et al (2014) who conducted empirical research on the role of metacognition and second/foreign language learning. There are seven findings: first, it is possible to influence learners' language performance through metacognitive intervention; all of the intervention studies demonstrated that metacognitive training helped learners to achieve improvements in their language performance. Second, evidence from intervension studies also indicates that metacognitive instruction can enhance language learners' metacognitive knowledge/ strategy usage though not significantly in most studies with control group. Third, in the correlational studies aimed at investigating whether metacognition predicts language performance, researchers reported that it appears to be a relatively strong predictor of language performance; the more the learners use metacognitive resources in their language learning, the more successful they were at performing language tasks. Fourth, the review convinced us that language proficiency, educational level, learning styles and first language strategy use/ knowledge all affect L2 metacognition. Fifth, in the area of second language learning, questionnaire is the most used measure for metacognitive strategies. Sixth, the questionnaires used for the evaluation of metacognition seemed to cluster into two categories: skill specific and generic language learning. For example Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002) and Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift, 2005, Vandergrift et al., 2006) are skill-specific questionnaire. Researchers have also adapted a questionnaire from a general language learning questionnaire or a general metacognitive instrument such as Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994) and Strategy Inventory for Language Learning (SILL) (Oxford, 1990). Seventh, most of the research on metacognition has focused on reading and listening skills while relatively little research has dealt with the role of metacognition in the development of speaking and writing skills.

From the four previous research, all of them have not investigated about the metacognitive process used by student teacher (candidate of teacher) who conduct peer teaching or micro teaching. All of them talk about students' metacognition and I make a difference to know how well the metacognitive process is done by the students in their teaching practice in real teaching course. This research let me know the level of readiness to practise in teaching and their process in learning to learn.

Design

This research carried out using descriptive research design. Students who took real teaching course in the seventh semester were the subjects of my research. I wanted to get the real description of phenomenon of metacognitive awareness from the student teacher (candidate of teacher). The research

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was conducted in one group of peer teaching (group 11). This group consisted of 11 students. I chose this group because I myself who became the facilitator chosen by the developing education centre of STKIP PGRI Jombang. I neither did control nor treatment so I only described the characteristics and phenomenon by using the psychometric properties of MAI which was adapted from Schraw & Dennison, 1994. The level of metacognitive awareness followed the scoring rubric at STKIP PGRI Jombang:

No	Criteria	Interval Score	Level
1.	Excellent	80-100	A
2.	Good	65-79	B
3.	Enough	55-64	C
4.	Less	45-54	D
5.	Fail	<45	E

To make sure that the data which were got are valid and reliable, I consulted the questionnaire with senior lecturers of STKIP PGRI Jombang and compared the result of the research with the students' peer teaching score got from observers.

FINDINGS

1. Declarative Knowledge

For statement 5 (I understand my intellectual strengths and weaknesses), there were 11 students who answered "yes". It meant that 100% of the students understood their own intellectual strengths and weaknesses. For statement 10 (I know what kind of information is the most important to learn in teaching), there were 11 students who answered "yes". It meant that 100% of the students knew what kind of information was the most important to learn in teaching. For statement 12 (I am good at organizing information), there were 3 students who answered "yes". It meant that 27% of the students found themselves good at organizing information. For statement 16 (I know what the lecturer expects me to learn), there were 6 students who answered "yes". It meant that 55% of the students knew what the lecturer's expectation. For statement 17 (I am good at remembering information), there were 2 students who answered "yes". It meant that 18% of the students were good at remembering information. For statement 20 (I have control over how well I learn), there were 5 students who answered "yes". It meant that 45% of the students had control over how well they learnt. For statement 32 (I am a good judge of how well I understand something), there were 7 students who answered "yes". It meant that 64% of the students thought that they were a good judge of how well they understood something. For statement 46 (I learn more when I am interested in the topic), there were 8 students who answered "yes". It meant that 73% of the students learnt more when they were interested in the topic.

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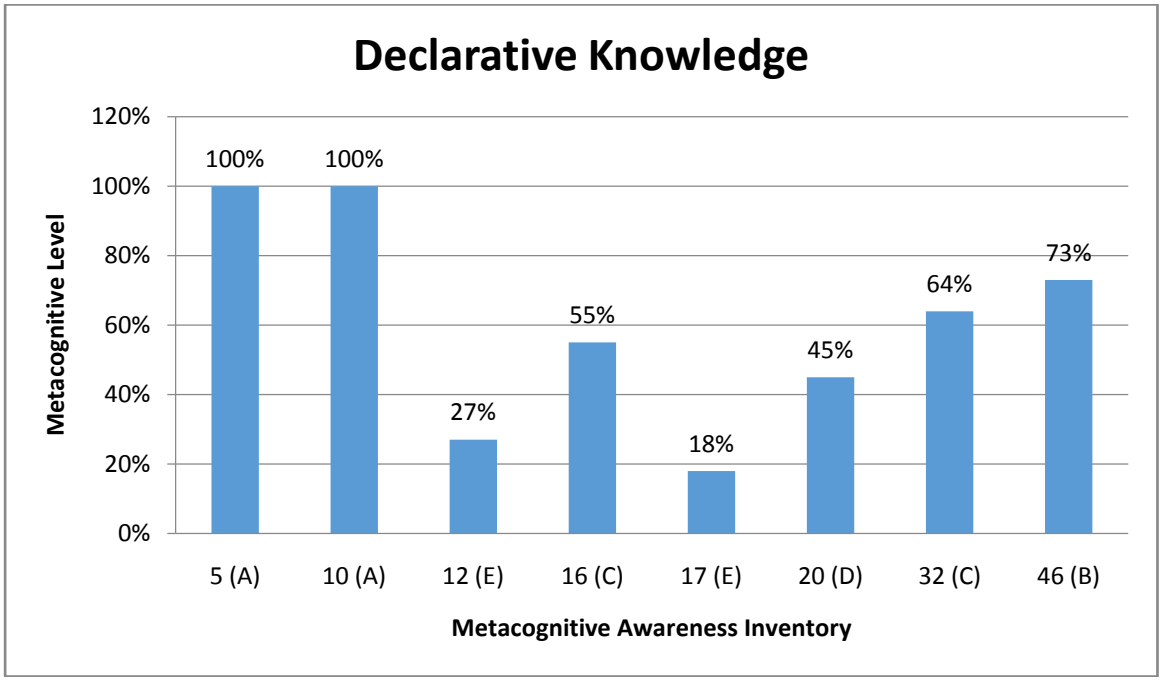

2. Procedural knowledge

For statement 3 (I try to use teaching strategies that have worked in the past (teyl,tefl,curriculum development), there were 10 students who answered "yes". It meant that 91% of the students applied the teaching strategies that had worked in the past. For statement 14 (I have a specific purpose for each teaching strategy I use), there were 10 students who answered "yes". It meant that 91% of the students had a specific purpose for each teaching strategy they used. For statement 27 (I am aware of what strategies I use when I study to practise teaching), there were 10 students who answered "yes". It meant that 91% of the students were aware of what strategies they used when they studied to practise teaching). For statement 33 (I find myself using helpful teaching strategies automatically), there were 6 students who answered "yes". It meant that 55% of the students found themselves using helpful teaching strategies automatically.

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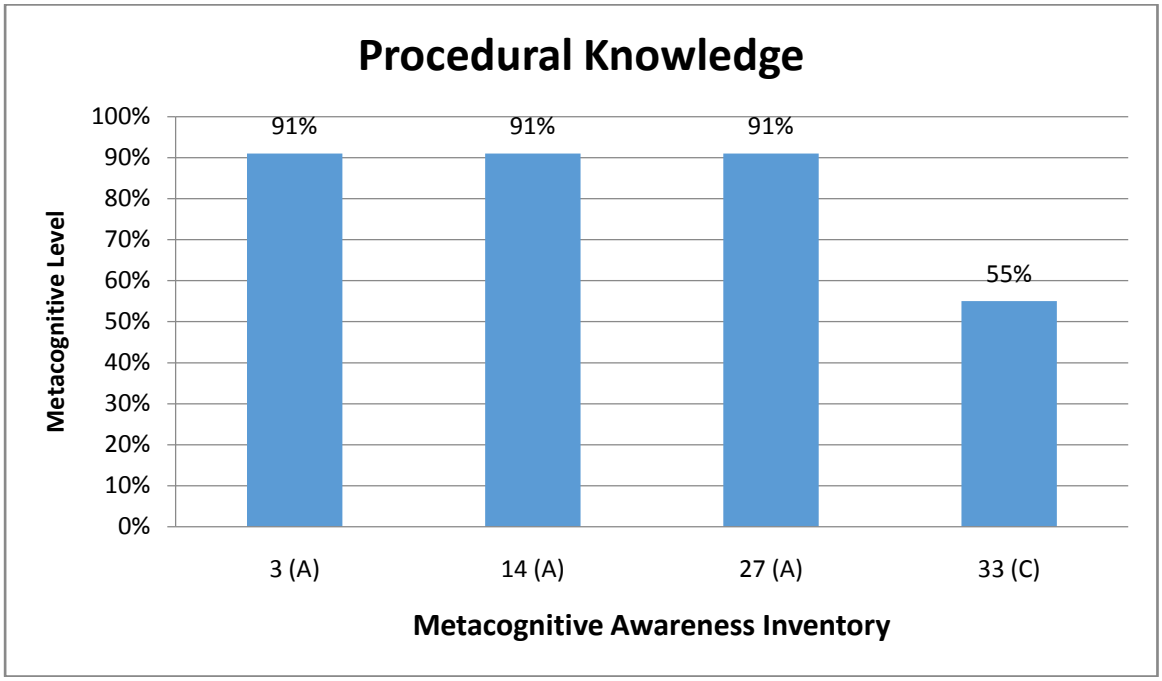

3. Conditional Knowledge

For statement 15 (I teach best when I know something about the topic), there were 11 students who answered "yes". It meant that 100% of the students taught best when they knew something about the topic. For statement 18 (I use different teaching strategies depending on the situation), there were 10 students who answered "yes". It meant that 91% of the students used different teaching strategies depending on the situation. For statement 26 (I can motivate myself to learn), there were 10 students who answered "yes". It meant that 91% of the students could motivate themselves to learn. For statement 29 (I used my intellectual strengths to compensate for my weaknesses), there were 9 students who answered "yes". It meant that 82% of them used their intellectual strengths to compensate for their weaknesses. For statement 35 (I know when each strategy I use will be most effective), there were 5 students who answered "yes". It meant that 45% of the students knew when each strategy they used would be the most effective.

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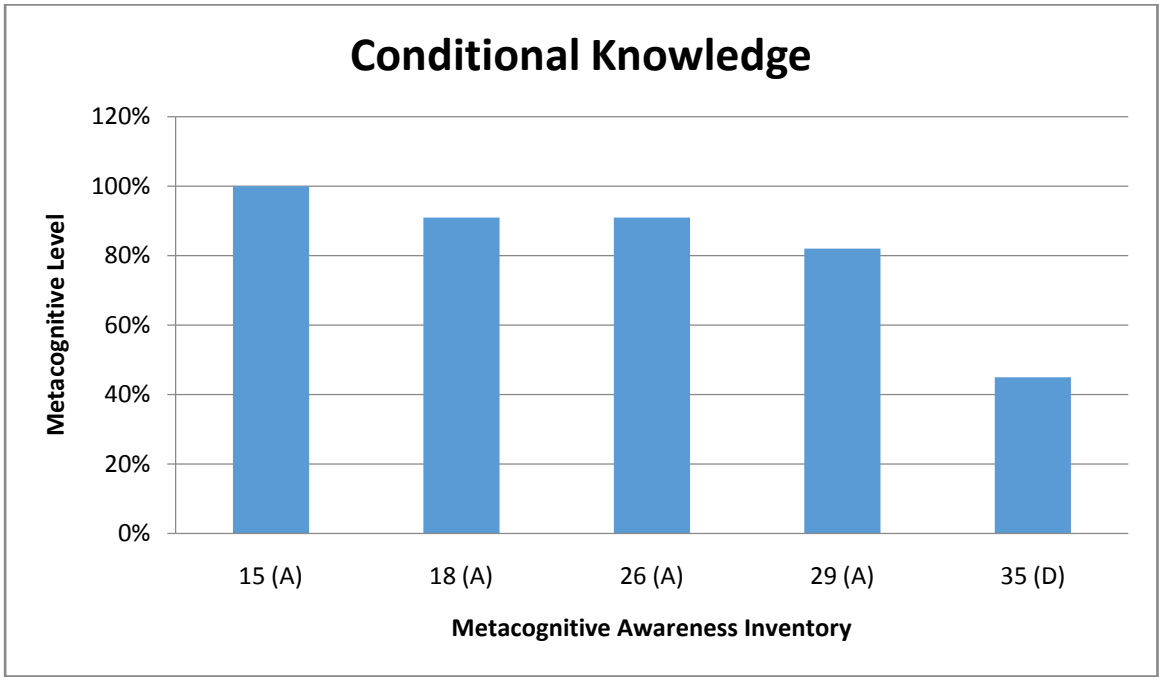
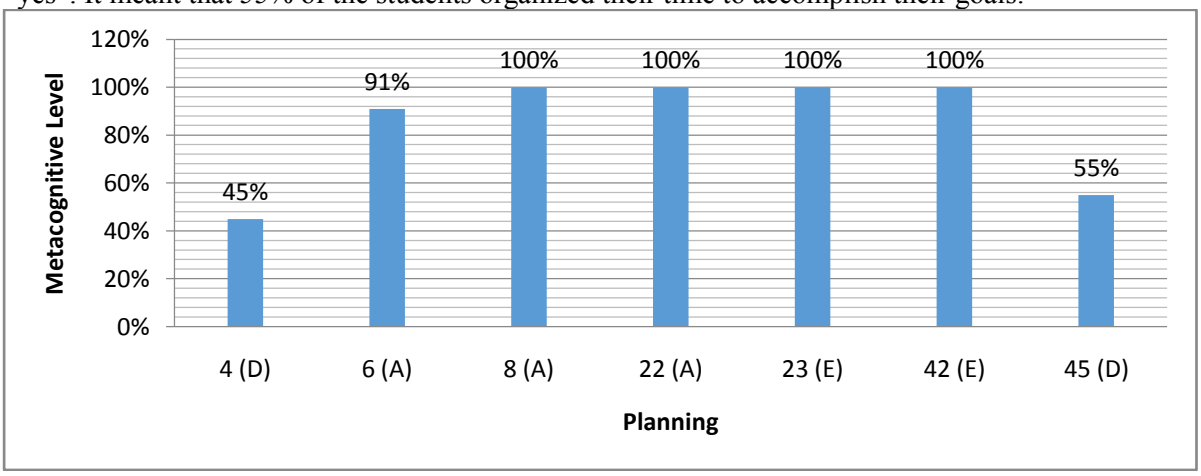


4. Planning

For statement 4 (I pace myself while learning in order to have enough time), there were 5 students who answered " yes". It meant that 45% of the students paced themselves while learning in order to have enough time. For statement 6 (I think about what I really need to learn before I begin a task to practise teaching), there were 10 students who answered "yes". It meant that 91% of the students thought about what they relly needed to learn before they began a task to practise teaching. For statement 8 (I set specific goals before I begin to practise teaching), there were 11 students who answered "yes". It meant that 100% of the students set specific goals before beginning to practise teaching. For statement 22 (I ask myself questions about the material before I begin), there were 11 students who answered "yes". It meant that 100% of the students asked themselves questions about the material before they began. For statement 23 (I think of several ways to solve a problem and choose the best one), there were 11 students who answered "yes". It meant that all of them thought of several ways to solve a problem and chose the best one. For statement 42 (I tell the instructions carefully before I begin to give the task to the students), there were 11 students who answered "yes". It meant that 100% of them told the instructions carefully before they beain to give the task to the students. For statement 45 (I organize my time to best accomplish my goals), there were 6 students who answered "yes". It meant that 55% of the students organized their time to accomplish their goals.



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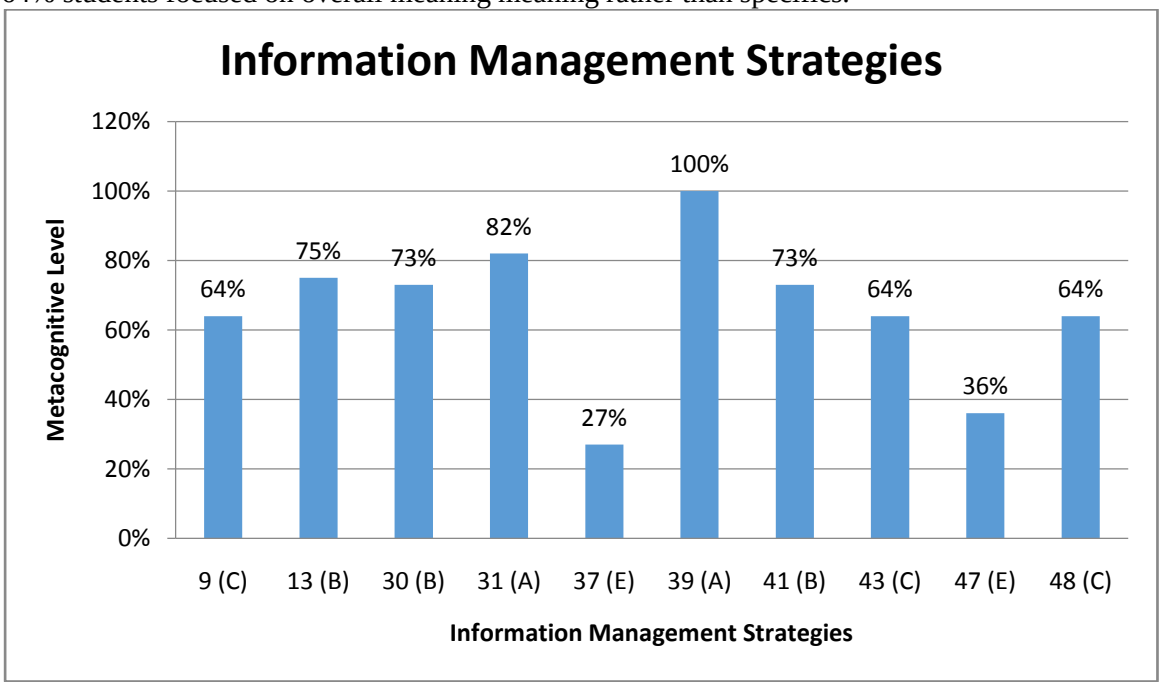
5. Information Management Strategies

For statement 9 (I slow down when I encounter important information), there were 7 students who answered "yes". It meant that 64% of the students slowed down when they encountered important information. For statement 13 (I consciously focus my attention on important information), there were 8 students who answered "yes". It meant that 73% of the students consciously focused their attention on important information. For statement 30 (I focus on the meaning and significance of new information), there were 8 students who answered "yes". It meant that 73% of the students focused on the meaning and significance of new information. For statement 31 (I create my own examples to make information more meaningful), there were 9 students who answered "yes". It meant that 82% of the students created their own examples to make information more meaningful. For statement 37 (I draw pictures or diagrams to help me understand while learning), there were 3 students who answered "yes". It meant that 27% of the students draw pictures or diagrams to help them understand while learning. For statement 39 (I try to translate new information into my own words), there were 11 students who answered "yes". It meant that 100% of the students tried to translate information into their own words. For statement 41 (I use the organizational structure of the text to help me learn), there were 8 students who answered "yes". It meant that 73% of the students used the organizational structure of the text. For statement 43 (I ask myself if what I'm teaching is related to what I already know), there were 7 students who answered "yes". It meant that 64% students asked themselves if what they were teaching was related to what they had already known. For statement 47 (I try to break studying down into smaller steps), there were 4 students who answered "yes". It meant that 36% of the students tried to break studying down into smaller steps. For statement 48 (I focus on overall meaning rather than specifics), there were 7 students who answered "yes". It meant that there were 64% students focused on overall meaning meaning rather than specifics.



6. Comprehension Monitoring

For statement 1 (I ask periodically if I am meeting my goals), there were 8 students who answered "yes". It meant that 73% of the students asked themselves periodically if they were meeting their goals. For statement 2 (I consider several optional teaching strategies before I practise teaching), there were 11 students who answered "yes". It meant that 100% of the students considered several optional teaching strategies before they practised teaching. For statement 11 (I ask myself if I have considered all options when solving a problem in teaching process), there were 10 students who answered "yes". It meant that 91% of the students asked themselves if they had considered all options when solving a

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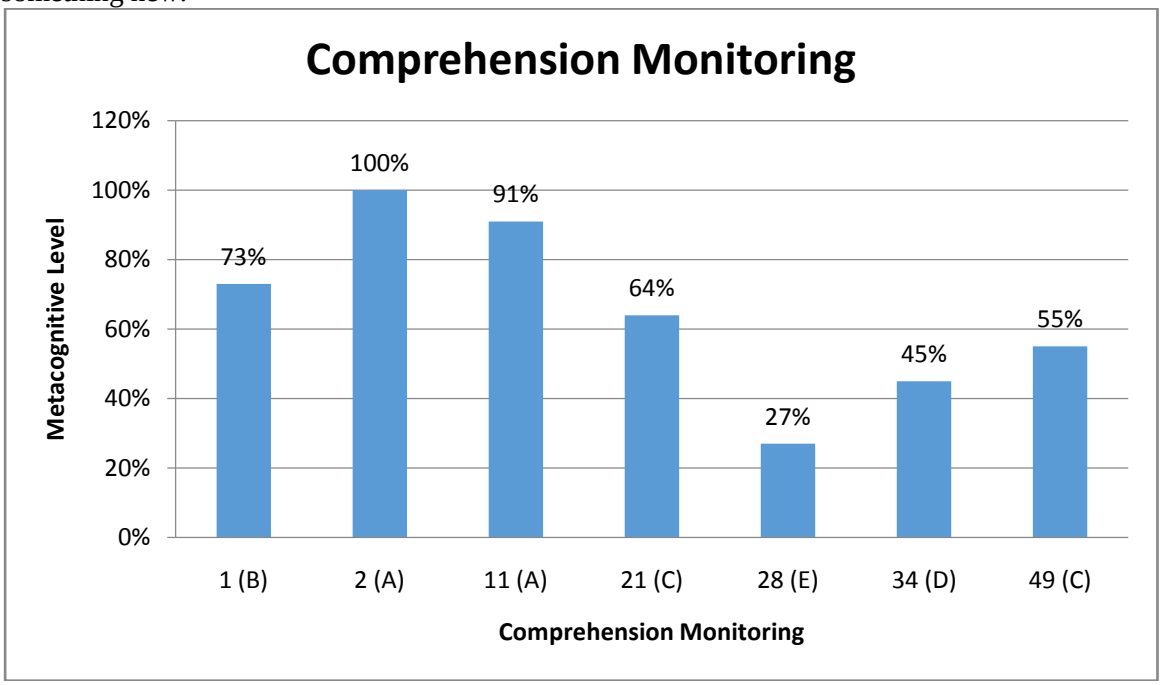
problem in teaching process. For statement 21 (I periodically review to help me understand important relationships), there were 7 students who answered "yes". It meant that 64% of the students periodically reviewed to help them understand important relationships. For statement 28 (I find myself analyzing the usefulness of strategies while I teach), there were 3 students who answered "yes". It meant that 27% of the students found themselves analyzing the usefulness of strategies while they taught. For statement 34 (I find myself pausing regularly to check my comprehension), there were 5 students who answered "yes". It meant that 45% of the students found themselves pausing regularly to check their comprehension. For statement 49 (I ask myself questions about how well I am doing while I am learning something new), there were 6 students who answered "yes". It meant that 55% of the students asked themselves questions about how well they were doing while they were learning something new.



7. Debugging Strategies

For statement 25 (I ask others for help when I don't understand something), there were 9 students who answered "yes". It meant that 82% of the students asked others for help when they didn't understand something. For statement 40 (I change strategies when I fail to make my class active), there were 9 students who answered "yes". It meant that 82% of the students changed strategies when they failed to make their class active. For statement 44 (I re-evaluate my assumptions when I get confused), there were 6 students who answered "yes". It meant that 55% of the students re-evaluated their assumptions when they got confused. For statement 51 (I stop and go back over new information or material that is not clear), there were 9 students who answered "yes". It meant that 82% of the students stopped and went back over new information or material that was not clear. For statement 52 (I stop and reread when I get confused), there were 11 students who answered "yes". It meant that 100% of the students stopped and reread when they got confused.

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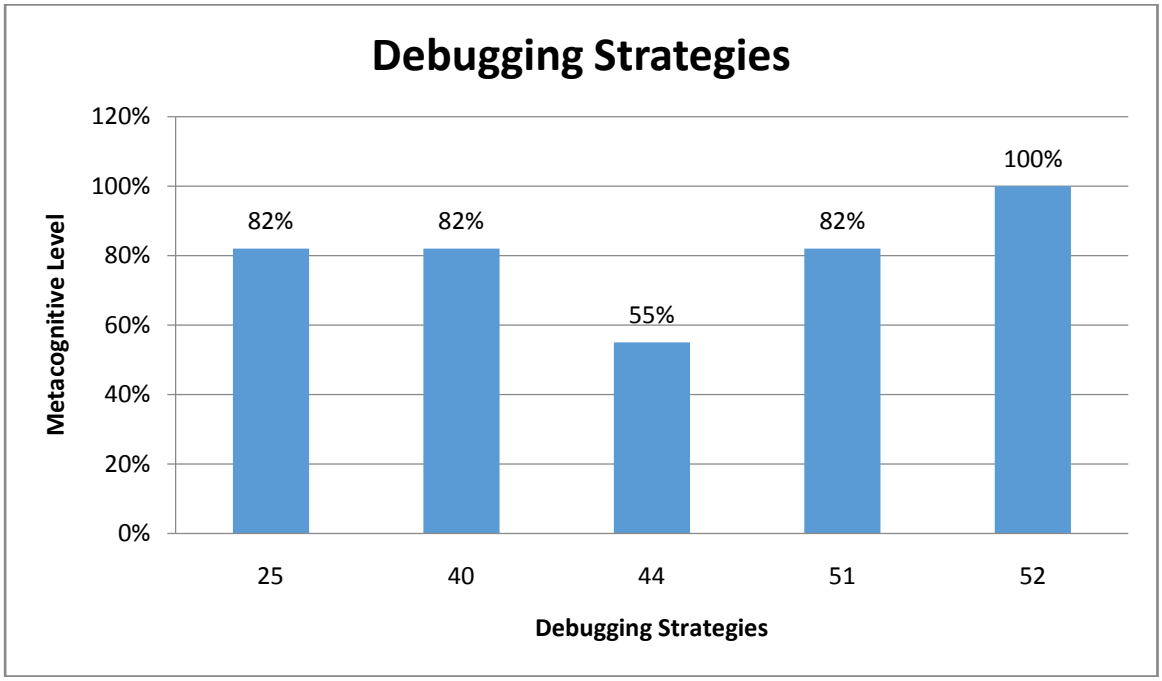

CONCLUSION AND SUGGESTION

Based on the findings and the discussion from the questionnaires, I could make conclusion as the following:

1) The students were included in enough level in declarative knowledge.
2) The students were included in excellent level in procedural knowledge.
3) The students were included in good level in conditional knowledge.
4) The students were included in enough level in planning.
5) The students were included in enough level in information management strategies
6) The students were included in enough level in comprehension monitoring
7) The students were included in excellent level in debugging strategies

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