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Review Studies Related to Metacognition of Teachers: Awareness, Skills, Understanding and Practices

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ABSTRACT

Teachers are among the most important school-based resources for determining students' long-term academic success and outcomes. The ultimate objective of improving professional change of teachers is to gain higher achievement levels of students. Professional development of teachers has become an important issue in transforming school education for the 21st century according to research conducted by National Education Commission, Sri Lanka. There should be new thinking on how the professionalism of teachers should be improved for the future development of teaching and learning. Therefore, the psychological concept "metacognition" defined as knowledge and regulation of one's thinking processes can be incorporated into teaching. Through metacognitive ability, teachers can observe, regulate, and control their thinking processes to become excellent. There are many studies at the international level related to the metacognition of teachers concerning their performances. However, Sri Lankan context, there are only 11 published studies related to that. The study's goal was to review studies related to the metacognition of teachers: awareness, skills, understanding, and practices and to make conclusions for future educational goals. Data were gathered by a documentary survey searching Google Scholar and Research Gate. Qualitative data analysis was used. The overall findings revealed that the metacognition of teachers positively influences their teaching performances. The metacognitive awareness level of teachers was good, while their skills were relatively low. Many pre-service teachers didn't understand what metacognition is and how to empower it. Hence, familiarizing and practicing "metacognition" can be recommended for the improvement of quality teaching in Sri Lanka.

Keywords: Metacognition, Awareness, Skills,

INTRODUCTION

The ultimate goal would be for students to learn properly with the help of effective teachers. Changing ways of thinking is one of the 21stcentury skills needed to achieve future goals: creativity, critical thinking, problem-solving, decision-making, and learning. (Sethunga, et al., 2016). The Sri Lankan government's priority is building a high-quality education system with the demands of the 21st Century. Sri Lanka is a developing country facing a huge economic crisis as a consequence of the long-term prevailing war situation and the heavily affective Corona pandemic. So, it is advisable to look forward to less expensive and more effective ways and means to address the quality of education.

Teachers are the most important school-based asset for students' long-term academic success and outcomes. The professional development of teachers has become an important issue in transforming school education for the 21st century in Sri Lanka (National Education Commission, 2016). Opportunities to participate in Continuing Professional Development (CPD) throughout their careers should empower teachers to update their professional knowledge and skills (Asian Development Bank, 2017). Due to the continuation of the



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colonial era education system, students after education become job seekers and not job creators. In a highspeed society, high-speed learning and appropriate teaching should be organized by the education system. Accordingly, metacognition is a modern psychological concept that affects the effectiveness of the learning and teaching process in the classroom. To overcome the challenges faced by the 21st-century teacher, the teacher must be skilled in its strategy with metacognition, without which it is not possible to contribute to giving birth to a perfect human being. (National Education Commission, 20016) revealed that the percentage of graduate teachers with professional qualifications (22.5% was lower than non-graduate teachers with professional qualifications 58.9%. Many untrained graduate teachers in the school system. As most graduate teachers engage with upper secondary classes, that situation creates an issue regarding meeting students' learning outcome. According to the Teachers' Service Minute (2008), teachers are absorbed into the school system mainly as trained teachers from the National Colleges of Education (NCoE) and graduate teachers in different disciplines after sitting on written competitive examinations. Even though graduate teachers have subject knowledge from which they have specialized, they are not sufficiently equipped with the professional knowledge to engage in a teaching career effectively. That situation will directly affect the teaching-learning process in the classroom to meet the learning outcomes. As a result (Department of Examination, 2021), more than 10% of students have failed all subjects from the examination, which is eligible for university entrance.

There should be new thinking on how to prepare the next generation of teachers to exhibit standards to overcome global trends and qualities expected of professionals. One of the 21st-century skills to meet future goals is changing ways of thinking (Sethunga et al, 2016). An essential component of education is the incorporation of the psychological concept known as "metacognition," which can be defined as the knowledge and regulation of one's thought processes. When this occurs, teachers can monitor, regulate, and control their thought processes as well as their professional route. The results of (Jiang et al, 2016) suggest that metacognitive intervention has the potential to improve teachers' teaching competency. In recent years, the educational systems of Shanghai, Hong Kong, Singapore, and Finland have made efforts to place a larger emphasis on the development of metacognitive skills. According to (Ferguson, 2020), teachers need to be provided with adequate assistance in the form of resources, tools, and chances for professional growth for them to become metacognitive professionals and better support the metacognitive development of their students. Teachers should be excellent and independent learners. To be an excellent teacher, Metacognition is the basic competency needed to be developed (Bozak, 2018). Metacognition plays an important role in communication, reading comprehension, language acquisition, social cognition, attention, self-control, memory, self-instruction, writing, problem-solving, and personality development (Flavell, 1979. Metacognition is the basic competency needed to develop an excellent teacher If teachers intend to teach students to think in a metacognitive way, they must practice that first. And teachers should be aware of their metacognition levels and characteristics. In Sri Lanka. There are eleven published studies related to metacognition in the field of education (Kodituwakku, 2009; Dhanapala, 2010; Silva, 2011; Gafoordeen & Abubakar, 2014; Kumari et. al., 2018; Ratnayake, 2018; Wickramage, 2019; Wijerathna, et al., 2020; Wijethunga, et.al., 2021; Sudusinghe, et al., 2021; Sirisumana, 2022). Due to a lack of studies in the Sri Lankan context, teachers may be even unfamiliar with the concept of metacognition and lack understanding about metacognitive abilities in their teaching. There are many research studies at the international level to experience and adapt them by reviewing. Based on this background, the research was conducted to review studies related to metacognition of teachers: awareness, skills, understanding and practices to examine the research approaches and methodologies that have been applied, to study the findings and reveal suggestions to improve teaching with metacognition in Sri Lanka.

RELATED LITERATURE

John Flavell of Stanford University is considered a pioneer in the field of metacognition. He defined metacognition as any cognitive interaction with the human or nonhuman environment. Flavell highlighted the significant increase in scholarly attention and research efforts of metacognition, including several domains such as oral communication skills, persuasion and understanding abilities, reading and writing



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proficiency, language acquisition processes, memory functions, attentional mechanisms, problem-solving aptitude, social cognition, affective monitoring, and self-instruction strategies. (Flavell, 1979). Metacognition is required for self-directed and self-regulated learning. Metacognition comes in several forms that can be employed in academic learning and daily living (Schraw, 2001). Just say "cognition of cognition" or "knowing about knowing" to describe metacognition. And "thinking about thinking" too. That means cognition and thinking are two sides of the same coin. That means the consciousness of the mind. One can make corrections regarding his/her thought process by monitoring and regulation (Abeypala, 2014). The Sri Lankan government's priority is building a high-quality education system with the demands of the 21st Century. The new psychological concept "metacognition" can be used in education for quality learning for the betterment of Sri Lanka. Through metacognitive ability, learners can observe, regulate, and control their thinking processes (Stewart, et al., 2007). They would become excellent and independent learners.

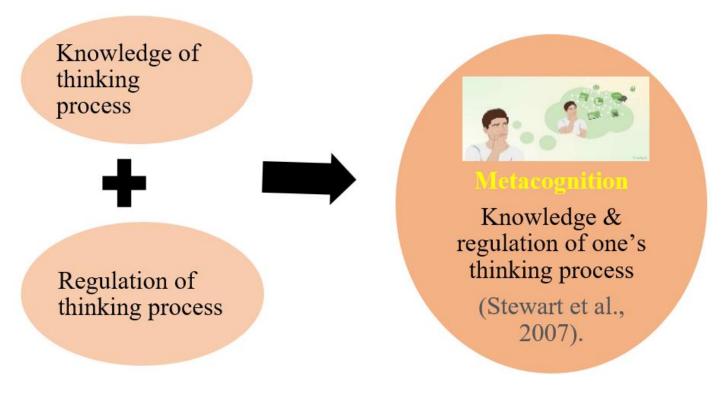


Figure 1 Concept of Metacognition

2500 years ago, Lord Buddha explained the metacognitive ability of humans. Metacognition is comprised of four components: metacognition about the physical body, sensitivity, mind and phenomena. The greatest achievement of metacognition is self-understanding of oneself. Socrates explained metacognition as higher knowledge of oneself that helps to understand one's living pattern critically. Abraham Maslow also explained metacognition as a transcendence need. Multiple intelligence introduced by Howard Gardner explained similar concepts related to metacognition as intra-personal and existence intelligence competencies. It was J. H. Flavell who connected the concept of metacognition to the field of education and learning. According to him, metacognition is the self-knowledge of cognition. Knowing one's cognition and learning experiences correctly, they can regulate. manage and develop the learners' learning. For instance, when you feel, now the brain is tired, feel sleepy, what you are learning is not absorbing. You can stop the learning and go to the rest or have a short nap. (Abeypala, 2014). Metacognitive knowledge includes knowing oneself as a learner and what might affect learners' performance. It also requires understanding techniques and when, how, and why to employ them. The process of keeping track of your thought process is known as metacognitive regulation. It includes planning activities, knowing how well you understand and do a task, and judging how well your monitoring processes and strategies work (Lai, 2011). Examples of metacognitive sub-components under the knowledge of metacognition include declarative knowledge, procedural knowledge, and conditional knowledge, while examples of metacognitive sub-components under the regulation of metacognition include planning, monitoring, and evaluating. (Schraw, 2001; Schraw & Dennison, 1994).



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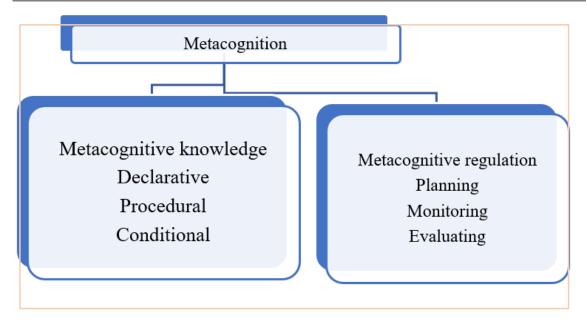


Figure 2 Sub components of metacognition

Declarative knowledge is an understanding of a person's cognitive methods, talents, and abilities. A person who has declarative knowledge understands what influences their own and others' learning, as well as what they know and do not know. A person who possesses declarative knowledge is aware of ways to boost task completion performance (Schraw, 2001). A person's grasp of applying methods and approaches to increase performance and complete cognitive tasks is referred to as procedural knowledge. A person who understands procedures will complete assignments by following well-known steps. The term conditional knowledge relates to a person's understanding of when and why to use task completion strategies. (Schraw, 2001). Planning is how a person uses planning strategies, sets goals, and uses resources to get things done. A person's cognition and strategy effectiveness are evaluated during monitoring. Teachers use monitoring to determine their effectiveness by assessing students' thinking through verbal and non-verbal feedback (Schraw, 2001). Performance and strategy effectiveness analysis is an evaluation component (Pucheu, 2008).

METHOD

A documentary survey research method and qualitative research approach were used for this study. Data-collecting instruments are local and international documents from web pages, journals and books in Research Gate and Google Scholar. Thematic analysis was used.

DISCUSSION

Metacognition is important in various aspects such as communication, reading comprehension, language acquisition, social cognition, attention, self-control, memory, self-instruction, writing, problem solving, and personality development (Flavell, 1979). A qualitative study was conducted within the educational setting of in-service science teachers' courses. The main finding is that teachers' intuitive (pre-instructional) knowledge of metacognition of thinking skills is unsatisfactory for the purpose of teaching higher order thinking in science classrooms. A discrepancy was found between teachers' procedural knowledge and their metacognitive declarative knowledge of thinking skills (Zohar, 1999). The academic achievement and metacognition of their students are more successfully enhanced by teachers who employ metacognition in their own professional life than by those who do not. Metacognition is required for self-directed and self-regulated learning (Schraw, 2001). The metacognitive approach has been applied to develop lifelong computer learning strategies by personality-relevant goals including skills, attitudes, confidence values, understanding, integration and leadership for the professional development of Information and Communication subject teachers (Phelps et al., 2004). Metacognitive abilities increase dramatically with age





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and years of teaching experience. There was no significant difference in metacognition between male and female participants, as well as among teachers from preschool to post-secondary levels. (Stewart et al., 2007). The results of the study indicated that secondary school core-subject teachers who successfully implement scoring rubrics possess a metacognitive awareness that transcends professional development training. The findings also suggested that teacher-participants who do not implement scoring rubrics either cannot or lack commitment to the innovation (Pucheu, 2008). Teacher training courses, teacher guides and textbooks should have consisted of activities related to training in metacognitive strategies (Kodituwakku, 2009). The teachers who have a rich understanding of metacognition are aware that a complex understanding of both the concept of metacognition and metacognitive thinking strategies are required in teaching students to be metacognitive learners (Wilson &Bai, 2010). The Read-Write Cycle Project provides an effective model of teacher professional development that supports teachers in developing their own metacognition. A range of pedagogical practices can be strategically used in their instruction and to reflect on the effects of their pedagogy on students' learning from cognitive to metacognitive (Curwen et al., 2010). Teachers had not consciously planned their lessons and they never engaged in metacognitive activities with their students. Metacognition Awareness Inventory for teachers (MAIT) can measure teachers' metacognition and help teachers be aware of the level of metacognition in their teaching (Balcikanli, 2011). The study found that the Professional Learning Community (PLC) provided an environment conducive to nurturing teacher metacognition. The teachers' awareness of their own metacognition influenced the nature of their work within the PLC, potentially affecting the learning of others. (Prytula, 2012). Teachers and students can improve their ability to evaluate their cognitive strengths and weaknesses and to learn to use that knowledge strategically. Metacognition is a valuable addition to both teacher professional development and classroom instruction. Teachers need to be supported in their metacognitive development. It is important that both PD facilitators and teachers recognize that metacognition grows gradually; it is a process that requires patience and time. Teachers need to be taught metacognitive strategies, but they also need sufficient time to practice these strategies in PD before they are asked to teach them to their students (Seraphin & Philippoff, 2012). There is dearth of knowledge about metacognitive strategies for use by teachers in schools. Although teachers do not possess a good knowledge of metacognition and metacognitive strategies. They can be trained to do so. Several studies examining the relationship between metacognition and academic achievement showed that students with higher levels of metacognition were more strategic in mind, resulting in better performance than students with lower metacognition levels. A concerted effort should therefore be made to train pre-service and in-service teachers by promoting a general awareness of metacognition that will aid them in modeling metacognitive strategies during classroom instruction. Both pre-service and inservice teachers should be trained on general awareness of metacognition to enhance learners' academic performance (Okoza & Aluede, 2013). Metacognition and self-efficacy both impact academic accomplishment. Metacognition proved to be more efficient (Ghonsooly et al., 2014). The Study: teachers' metacognitive awareness as a predictor of their professional success revealed that the four elements of Metacognitive Awareness Inventory, namely declarative knowledge, planning, evaluation, and management strategies correlated with teachers' pedagogical success (Nahrkhalaji, 2014). Six key resources which influenced the metacognitive development of the teachers: in the courses in this study can be identified as bellows; the course in the study, other courses; the teachers' insight; the teachers' teaching experience; peer suggestions and children's reflections. (Eldar & Miedijensky, 2015). The study examined the metacognitive knowledge of pre-service physics teachers regarding their instructional practices. While their content knowledge was deemed satisfactory, there is room for improvement in their metacognitive knowledge pertaining to instructional methods, students' pre-instructional knowledge, and the task of teaching. (Yerdelen-Damar et al., 2015). The study demonstrated that there is a significant positive relationship between teaching competencies and Metacognition awareness. Teacher can use a variety of strategies to enhance metacognition independent of grade level and subject area. Metacognition refers to awareness of one's own thoughts. It has recently become a popular topic for theorizing and empirical research. Participants are teacher educators and quantitative research approach has been used. Majority of the secondary teacher educators both male and female have average level of competencies in teaching (Choudhury & Chowdhury, 2015). Teacher professional development should be started with what teachers already know about their teaching. Moreover, metacognitive intervention could enhance teachers' teaching





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competency. Metacognition refers to both people's awareness and control, not only of their cognitive process but also of their emotions and motivation. By using Teacher Metacognitive Inventory (TMI) metacognition in teaching and learning can be assessed. The TMI allows teachers to self-evaluate their teaching skills and efficiency. A few TMI elements measure teachers' sensitivity to students' classroom performance. TMI insights can help teachers adjust their teaching techniques quickly and dynamically to improve classroom learning. TMI helps teachers identify their teaching strengths and weaknesses and how sensitive teachers are to students' learning performance in the classroom. Therefore, metacognition plays a pivotal role in teachers' professional development (Jiang et al., 2016). A catalytic relationship between the pedagogies employed by teachers to increase their students' metacognition and the teachers' learning and metacognitive knowledge and skillfulness (Wall & Hall, 2016). The importance of metacognitive awareness, and fostering new knowledge, regulating, and monitoring cognition would help create a supportive environment for academic motivation in teacher education programs. metacognitive training can inspire students to increase their metacognitive knowledge and learning strategies. Participants are prospective English teachers and a quantitative research approach was conducted (Öz, 2016). These results indicate that students' reading comprehension can be enhanced through the improvement of their metacognitive knowledge of reading strategies (Soodla, Jõgi & Kikas, 2016). Teachers' professional growth should center on metacognitive awareness, which means knowing how other people think. One important part of teachers' adaptability is their ability to control their thoughts and knowledge. Regulation of cognition affects teachers' ability to learn, change, and grow over the course of their careers, it should be a focus of PD programs (Hughes, 2017). It highlights the importance of teachers' understanding of metacognition to facilitate students' selfregulation and promote modern learning approaches and lifelong learning (Kallio et al 2017). Results showed that when teachers reflect upon their process, they can improve their teaching practice, which will benefit all the actors of it: teachers, students and the institution. Additionally, findings also reported that metacognitive strategies can be implemented in teachers' performance to improve professional development. it is important to highlight that metacognitive strategies can also be used by teachers, to enhance their teaching performance. Sometimes, teachers take for granted their knowledge and classroom practices, and they forget that a teacher's learning never stops. For this reason, they need to be constantly looking for different and new ways to grow professionally. Hence, metacognitive strategies are a means for teachers to be more aware of their learning and teaching process (Strategies et al., 2017). Teachers have an important and indispensable role in training students to become metacognitive learners rather than passive consumers of knowledge. Professional development can influence teacher attitudes regarding students' metacognitive abilities as well as instructional strategies, which in turn affect students' reading growth. Helping students become more metacognitively aware of their reading can eventually start them on a path of self-regulation of learning, sparking a passion for reading and learning. (Pratt & Martin, 2017). Metacognitive learners have ability to recognize, evaluate and, where needed, reconstruct existing ideas (Fuentes et al., 2018). Resourceful knowledgeable, strategic and goal-directed purposeful and motivated create successful learning and all these processes implies metacognition. According to that metacognition is important for Learning to learn (Kumari et al., 2018). The study on patterns of metacognitive awareness among primary school teachers showed that the levels of metacognitive awareness among teachers are high, at 93%. Individuals use metacognition knowledge and regulatory expertise to govern their cognitive. According to the overall findings, teachers with a higher level of metacognitive awareness can produce pupils with excellent academic accomplishment. (Palantis et al., 2018). The study Greek teachers' metacognitive awareness of reading strategies showed that teachers' metacognitive reading strategies remain implicit (Koulianou & Samartzi, 2018). Findings confirmed that metacognitive awareness and teaching with metacognition were correlated. Future research should take account of improving both teachers' knowledge, competence, practices of metacognition and students' adequacy with metacognition simultaneously. Quentitative research approach and participants are teachers (Ozturk, 2018). Metacognitive study has looked at how teachers think about their own thinking, because some people think that teachers who don't know how they think about their own thinking can't help their students learn it. Teacher professional development (PD) has given some attention as a way to help teachers become more metacognitive. (Hughes, 2019). Metacognition is the basic competency to become an independent learner. The outcomes of the study showed that the level of metacognitive awareness of biology teachers was good, while their skills were relatively low. This study



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further revealed that many teachers did not understand what metacognition is and how to empower it (Fauzi & Sa'diyah, 2019). The quasi-experimental study found that early-childhood in-service teachers who participated in the metacognitive program had higher metacognitive skills scores for both knowledge of cognition and knowledge of regulation than the other group. Teachers with varied supportive variables, pedagogical attitudes, and self-efficacy would dominate in metacognitive skills in each category. (Thienngam et al., 2020).

Metacognitive skills refer to the capacity to actively monitor and control one's thinking and behaviours using specific learning strategies such as goal setting, progress monitoring, and deliberate reflection One of the concepts of 21st-century learning is the significance of training metacognitive individuals. Metacognition was chosen as a word to incorporate other regularly used terms like self-regulated learning, thinking skills, and learning to learn. In this case, it should be understood that students are geared towards autonomous learning. One of the neglected areas of school policy and practice is teaching with metacognition. Accordingly, Promoting the education of metacognitive individuals has emerged as a critical factor in fostering the development of autonomous learners who think, act, take a stand, and work on judgement based on reasons. The study on exploring metacognitive awareness among teachers suggests that teachers should recognize the relevance of metacognition's functioning role in the language learning process to turn students into more autonomous and self-regulated language learners. Metacognitive awareness and metacognitive reading practices both contribute significantly to second language learning. As a result, the metacognitive method should be integrated into instruction. (Nordin & Yunus, 2020). Effective teacher requires a personal foundation of metacognitive knowledge and skill, as well as the ability to incorporate metacognition into their pedagogy. Education systems must provide ample resources, tools, and opportunities for professional development to enable teachers to become proficient metacognitive and better assist their students in developing metacognitively. (Ferguson, 2020). The framework for teacher metacognition proposed by Tachie (2021) ensures that teachers are aware of the numerous application domains for metacognition. Metacognition plays a crucial role for teachers to plan, implement, reflect on, and monitor their teaching for effective learning. By using metacognitive skills and techniques, teachers can improve their pedagogical knowledge and help students much more than teachers who don't have these skills. (Tachie, 2021). The experienced teachers transformed their professional identities through continual monitoring and restrictions on professional development (Han, 2021). The metacognitive awareness level of the teachers varied according to their professional qualifications, gender, age, and subject studied for their bachelor's degree program, and teachers with strong metacognitive awareness are the ones who make a difference in education (Wijethunga & Wijesundara, 2021). Metacognition is the understanding and regulation of one's cognition, and it has been linked to academic achievement at all levels of education. According to research conducted with undergraduate teachers, only 37.5% were familiar with metacognition, and they often emphasized knowledge of cognition rather than regulation of cognition. (Dennis & Somerville, 2022). This study aimed to examine whether or not reflections can empower Indonesian pre-service English teachers' (PSETs') metacognitive awareness in teaching. Mixed-methods research was conducted. The study reveals that there are positive contributions of reflections in enhancing their metacognitive awareness in teaching. metacognitive awareness in teaching could empower teachers, their teaching, and student learning. It was evident in this research that reflections could be utilized to increase PSETs' metacognitive awareness in teaching. Successful teaching requires teachers' reflections and metacognitive awareness. This research suggests that, while beneficial, enhancing metacognitive awareness in teaching takes time, patience, a strong commitment, and purposeful efforts from teachers and students (Laos Mbato & Triprihatmin, 2022). The study revealed medium and high-level positive relationships between 21st-century learner skills and metacognitive awareness, 21st century learner skills and early teacher identity, and metacognitive awareness and early teacher identity. Additionally, the pre-service teachers' 21st century learner skills and metacognitive awareness significantly predicted their early teacher identity and have a positive effect on their teacher identity (Cengelci & Egmir, 2022). The integration of metacognition strengthens teachers' awareness of their development before, during and after professional development interventions, hence enhancing their thinking of what they teach, how they teach it, why they teach it and how they will adapt it for future teaching-learning endeavors. Qualitative research design was used, teachers, mathematics teachers



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may be improved and sustained in their respective schools, since participants became metacognitively aware of the important role of reflection in their teaching (Potgieter & van der Walt, 2022).

CONCLUSION

Those studies have been conducted by qualitative, quantitative and mixed research approaches with the research methods of surveys, longitudinal research, experimental, and correlational. Quasi-experimental. Metacognition is a valuable addition to both teacher professional development and classroom instruction. Teachers who use metacognition effectively in their professional lives are more successful in enhancing their students' metacognition and academic achievement than teachers who do not. Teachers' professional growth should centre on metacognitive awareness, which is their ability to control their thoughts and knowledge. Four elements of the Metacognitive Awareness Inventory in professional success, namely declarative knowledge, planning, evaluation, and management strategies correlated with teachers' pedagogical success. Metacognitive training can inspire prospective teachers to increase their metacognitive knowledge and learning strategies. Therefore, metacognition plays a pivotal role in teachers' professional development to plan, implement, reflect on and monitor their own teaching for effective learning. Metacognition Awareness Inventory for teachers (MAIT) can measure teachers' metacognition and help teachers be aware of the level of metacognition in their teaching. Teacher Metacognitive Inventory helps teachers identify their teaching strengths, and weaknesses and how sensitive teachers are to students' learning performance in the classroom.

One of the concepts of 21st-century learning is the significance of training metacognitive individuals. One of the neglected areas of school policy and practice is teaching with metacognition. The metacognitive awareness level of teachers was good, while their skills were relatively low. Many pre-service teachers didn't understand what metacognition is and how to empower it. Both pre-service and in-service teachers should be trained on general awareness of metacognition to enhance learners' academic performance. Teacher training courses, teacher guides and textbooks should have consisted of activities related to training in metacognitive strategies. Metacognitive awareness and teaching with metacognition were correlated. Teachers with a higher level of metacognitive awareness can produce pupils with excellent academic accomplishment. Pedagogical knowledge of teachers is developed by incorporating metacognitive skills and strategies which assist learners far better than those who do not have such skills. The metacognitive awareness level of the teachers varied according to their professional qualifications, gender, age, and subject studied for their bachelor's degree program, and teachers with strong metacognitive awareness are the ones who make a difference in education. Education systems must provide ample resources, tools, and opportunities for professional development to enable teachers to become proficient with metacognition. Metacognition has been linked to academic achievement at all levels of education. Metacognitive awareness in teaching needs time, patience, dedication, and conscious efforts by teachers and students. There is a positive relationship between 21st century learner skills and metacognitive awareness. Hence, familiarizing and practicing "metacognition" can be recommended for the improvement of quality teaching in Sri Lanka. Further research needs for professional development of teachers based on metacognition and policy level changes of incorporating metacognitive strategies in school curriculum for quality education in Sri Lankan context.

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