



The Attitude Competencies of Tamil Schoolteachers in Implementing Creativity, Critical Thinking, Collaboration, and Communication Skills in Classroom Learning

Vignesvaran M. Ponnusamy & Zainudin Hassan
University of Technology Malaysia Malaysia

Abstract

The attitude of teachers towards 21st century learning is crucial for the effective implementation of the 4C skills (Critical Thinking, Creativity, Collaboration, and Communication) in the classroom. This research aims to identify the essential attitudes required by Tamil school teachers to implement 4C skills in classroom learning. A Multiple Case Study design was used with nine participants, and data were collected through semi-structured interviews, document analyses, and micro-teaching video analysis. Thematic analysis and triangulation revealed three essential elements of Tamil schoolteachers' attitudes required for efficient implementation of 4C skills: sense of responsibility, teachers' beliefs, and teachers' actions. Acquiring these attitudes will assist teachers in effectively implementing 4C skills among their students, allowing them to compete globally in higher education and employment opportunities.

Keywords: 4C Skills, Teachers' Attitude, 21st Century Learning, Teachers' Action, Teachers' Belief, Teachers' Sense of Responsibility.

Introduction

Teachers' attitudes are a key factor in shaping their students' academic and social development (Kesici & Erdogan, 2020). The positive attitude of teachers towards the implementation of 4C skills is crucial in ensuring the effectiveness of this approach. Asmawi and Kadir (2015) state that 21st century teachers need to equip their students with 21st century skills, including the 4C skills, to prepare them to face challenges and opportunities in the digital era. However, the majority of teachers still use conventional teaching methods due to time constraints, a dense syllabus, and an exam-based education system (Aziz & Rahman, 2018; Hakim & Ikhsan, 2018; Yahaya et al., 2019).

The 21st century skills, also known as the 4C skills, encompass critical thinking, creativity, collaboration, and communication skills (National Education Association (NEA), 2012). These competencies are essential for students' academic and professional success (Alismail & McGuire, 2015; Arbaa et al., 2017; Ewe et al., 2018) and for developing a skilled workforce that can drive political (Centre for Curriculum Redesign (CCR), 2016), economic (Abdullah & Osman, 2010; Ruminar & Gayatri, 2018), and social progress (Alismail & McGuire, 2015).

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

In Malaysia, it is crucial to implement the 4C skills to prepare students for the future, given the changes in the education system. However, teachers may face obstacles in integrating these skills into their teaching practices due to inadequate training and limited courses that may not fully explain the 21st century education system. Furthermore, some Tamil schoolteachers may prefer the previous exam-based education system, which poses a challenge in implementing the 4C skills in the classroom.

Teachers who lack attitude competencies may struggle to effectively facilitate 21st century learning in the classroom. Inadequate preparation and understanding of 21st century learning may also hinder teachers from integrating it into their teaching practices (Aziz & Rahman, 2018; Hassan & Thambu, 2018). Therefore, this study aims to identify the attitude competencies that Tamil schoolteachers require to successfully integrate the 4C skills into their classroom learning. The research was conducted in Tamil schools across all ten districts in the state of Johor, Malaysia.

Literature Review

Attitude refers to an individual's evaluation of people, objects, events, or ideas, which can be positive, negative, or neutral, and it can affect behavior, emotions, and beliefs (Eagly & Chaiken, 1993; Ajzen, 2001). For 21st century teachers, having a positive attitude towards the implementation of 4C skills in the classroom is crucial.

Negative attitudes among teachers can be a barrier to achieving excellence in the teaching profession. Some teachers may possess knowledge and skills but still have weak attitudes (Osman et al., 2019). Teacher attitudes have a significant effect on students' learning experience (Sleeter, 2012). Negative attitudes, such as those linked to burnout or disengagement, can negatively impact student achievement (Day et al., 2010).

The negative attitudes of teachers can impede their professional development and limit their knowledge and skills expansion (Osman et al., 2019). Some teachers hold negative attitudes towards implementing 4C skills in the classroom due to insufficient training, understanding, and resources (Ali, 2018). Although some teachers have a positive attitude towards 4C skills implementation, many have negative attitudes and perceptions that hinder the integration of these skills into classroom learning (Gökdaş & Aydın, 2018). Teacher attitudes are a crucial factor in effectively implementing 21st century learning (Voogt & Roblin, 2012).

Teachers' negative attitudes towards the use of ICT and 21st century learning approaches can become a barrier to integrating ICT into classroom learning (Bingimlas, 2009). Negative attitudes towards ICT may arise due to a lack of training, personal beliefs, and inadequate resources (Almekhlafi & Almeqdadi, 2010). The successful integration of ICT in the classroom depends on teachers' attitudes towards technology; therefore, it is recommended to develop a positive attitude towards technology among teachers (Lim, 2012).

A favorable attitude towards 4C skills is crucial for their effective implementation in the classroom. Teachers who hold a positive outlook towards these skills are more likely to employ them efficiently in their teaching practices and promote the development of these competencies in their students (Gökdaş & Aydın, 2018). Therefore, it is imperative for teachers to cultivate a positive attitude towards 4C skills, which can be accomplished through adequate training and support. Positive teacher attitudes can contribute to better educational outcomes and enhanced teaching methods.

Attitude is an essential factor in the teaching profession, especially when it comes to integrating 4C skills in the classroom. Teachers who hold negative attitudes may impede their

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

professional development and limit the effective implementation of 21st century learning methods. Therefore, it is crucial for educators to foster a positive outlook towards 4C skills in their teaching practices. Such a positive attitude can contribute to creating a learning environment that is more conducive to student achievement and success.

Methods

The aim of the study was to identify the attitude competencies elements of Tamil schoolteachers required for effective implementation of 4C skills in classroom learning. A qualitative approach and multiple case study design were used, with Tamil schoolteachers in Johor as the population of interest. The total population comprised 1,236 teachers from 70 schools, and a sample size of nine participants was selected. To ensure triangulation, three data collection instruments were employed: semi-structured interview protocols, document analysis, and micro-teaching videos.

The study received approval from the Ministry of Education, Johor State Education Department, and all district education offices before data collection. The researcher contacted schools through phone calls and email and nominated a Tamil schoolteacher with knowledge and skills in 21st century learning to provide the necessary data upon agreement to participate. Data collection lasted for six months due to teachers' busy schedules.

The interviews were conducted online using Google Meet, recorded, transcribed, and sent back to the participants for member checking to ensure the validity of the data. The transcribed data was then analyzed and coded. In addition, the researchers collected and analyzed the participants' daily lesson plans and micro-teaching videos. The findings from all three data sets were triangulated and analyzed.

Result and Discussion

Table 1.1 displays the emerging themes of attitude competencies that are crucial for teachers to effectively implement the 4C skills in the classroom. These themes are divided into three main elements: sense of responsibility, belief, and action (SBA). Adopting the SBA approach is recommended for teachers who aim to implement the 4C skills in teaching and learning. By doing so, teachers can develop their expertise to implement the 4C skills and help students acquire these skills.

Table 1.1

Emerging Themes of Attitude Competencies

N	Emerging Themes	Emerging Sub-themes
1	Sense of Responsibility	a. Sense of responsibility toward profession
		b. Sense of responsibility toward student
2	Teachers' Belief	a. Belief in profession development
		b. Belief in student development
		c. Belief in knowledge competencies
3	Teachers' Action	a. Teaching Profession Action
		b. Professional Actions

The sense of responsibility is a crucial element for teachers and consists of two subelements: responsibility towards the profession and responsibility towards the students. Teachers should be dedicated to their work, and their sense of responsibility towards the

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

profession should motivate them to work productively and implement the 4C skills in the classroom. By embracing this sense of responsibility towards their profession and students, teachers can become competent 21st century educators.

Conversely, a teacher's sense of responsibility towards their students is equally important. When teachers feel responsible for their students' future, they become more dedicated and are willing to do everything in their power to help their students succeed. Correspondingly, Glickman et al (2014) state that teachers who have a sense of responsibility towards their students' learning and success are more likely to be effective educators and engage in ongoing professional development. This is further strengthened by Hargreaves (2000), who suggests that teachers who possess a strong sense of responsibility towards their profession and students are more likely to be effective educators and engage in ongoing professional learning.

Teachers' beliefs about professional and student development, as well as their knowledge competencies, are crucial for becoming skilled 21st century teachers and for effectively implementing 4C skills in the classroom. Research indicates that teachers' beliefs about their own professional development and their students' learning significantly impact classroom effectiveness (Guskey, 2002; Klassen & Chiu, 2010). Therefore, it is important for teachers to continuously engage in professional development opportunities to enhance their knowledge and skills in order to effectively facilitate student learning. Furthermore, Cochran-Smith and Zeichner (2005) state that teachers' knowledge competencies is crucial to becoming a 21st century teacher.

Professional development, which includes on-the-job training and mastering the use of technology in teaching, provides a complete understanding of 21st century learning, which is crucial for teachers to effectively implement 4C skills in the classroom. Additionally, the application of technology in the 21st century classroom increases the acquisition of 4C skills among students. This is supported by Kim and Lee's (2016) statement that on-the-job training, as part of professional development, helps teachers acquire the necessary skills and knowledge.

The belief of teachers in student development is an essential element that ensures the effective development of 4C skills among students. Teachers' belief in the capability of students to acquire 4C skills creates opportunities for students to develop and practice these skills. It is important for teachers to believe that all students have the capability to acquire 4C skills. The teacher's belief regarding their students' capability significantly influences the student learning and development process (Pekrun & Elliot, 2009).

The belief of teachers in their own knowledge competencies involves their understanding of pedagogy, socioeconomic factors, 4C skills, and technology (PS4T), which in turn determine their ability to teach proficiently. Teachers' actual knowledge and understanding of the subject matter have a positive impact on student learning outcomes (Hill et al., 2005). Therefore, PS4T knowledge is an essential element that helps teachers to implement 4C skills in the classroom and has a positive impact on student learning outcomes.

Teachers' actions are divided into two sub-elements: teaching profession action and professional action, which demonstrate how teachers implement 4C skills in the classroom. Examples of teaching profession action include a teacher's commitment to lesson planning by creating well-planned lesson plans, using teaching methods that prioritize student engagement and participation, and providing equal opportunities for all students to participate. However, effective teaching profession action requires a focus on developing professional capital, which involves building and leveraging the collective expertise of

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

teachers through collaboration, ongoing learning, and a shared commitment to improving student learning outcomes (Hargreaves & Fullan, 2012).

The professional actions of teachers are vital elements that demonstrate their professionalism in the eyes of students. Certain actions by teachers can assist them in implementing 4C skills in the classroom, such as demonstrating leadership, possessing expertise, communicating effectively, staying up to date with current information, and maintaining ethical standards as teachers. These elements contribute to the teacher's professional persona. Goodson and Hargreaves (1996) explain that teachers engage in professional action by participating in continuous professional development, reflecting on their practice, collaborating with colleagues, and adhering to ethical and moral principles, which all help to shape and define their professional identity and status.

The SBA serves as a reference point for teachers to ensure that they are effectively fostering 4C skills in their students. The acquisition of 4C skills by students is essential, and a teacher's-controlled attitude can facilitate the process of implementing 4C skills in classroom learning.

Conclusion

In conclusion, it is crucial for Tamil schoolteachers to develop 21st century teaching skills in order to foster 4C skills in their students. The essential elements that shape effective teaching practices include a sense of responsibility towards the profession and students, belief in professional and student development, and knowledge competencies. Professional development opportunities and the use of technology in the classroom play a crucial role in enhancing Tamil schoolteachers' knowledge and skills to implement 4C skills. Tamil schoolteachers' actions, including teaching profession action and professional action, demonstrate their professionalism and contribute to shaping their professional identity and status. The SBA serves as a valuable resource for Tamil schoolteachers to ensure the effective implementation of 4C skills in the classroom. Ultimately, by embracing 21st century teaching skills, Tamil schoolteachers can become competent educators, facilitating the acquisition of 4C skills in their students and preparing them for the challenges of the future.

Corresponding Author

Vignesvaran M. Ponnusamy University of Technology Malaysia Malaysia Email: vignesvaran.ponnusamy@gmail.com

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

References

- Abdullah, M., & Osman, K. (2010). 21st century inventive thinking skills among primary students. *Procedia social and behavioral sciences*, 2(2), 3408-3412.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual review of psychology*, 52(1), 27-58.
- Ali, M. (2018). Teachers' attitudes towards 21st century skills and knowledge in Pakistan. *Journal of Education and Practice*, 9(3), 17-22.
- Alismail, H. A., & McGuire, P. (2015). 21st Century Standards and Curriculum: Current Research and Practice. *Journal of Education and Practice*. 6(6), 150-154.
- Almekhlafi, A. G., & Almeqdadi, F. A. (2010). Teachers' attitudes toward information and communication technologies: The case of Syrian EFL teachers. *Journal of Educational Technology & Society*, 13(1), 165-176.
- Arbaa, R., Jamil, H., & Ahmad, M. Z. (2017). Model Bersepadu Penerapan Kemahiran Abad ke-21 dalam Pengajaran dan *Pembelajaran. Jurnal Pendidikan Malaysia*, 42(1), 1-11.
- Asmawi, A., & Kadir, R. A. (2015). The Importance of 21st Century Skills in Education: A Review. *International Journal of Technical Research and Applications*, 4(2), 105-111.
- Aziz, F. A., & Rahman, M. J. A. (2018). Tahap Kesediaan Guru-Guru dalam Melaksanakan Model Bersepadu Pembelajaran Abad Ke-21. *Paper presented at the International Conference on Education and Regional Development, Bandung, Indonesia*.
- Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science & Technology Education*, 5(3), 235-245.
- Cochran-Smith, M., & Zeichner, K. M. (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Lawrence Erlbaum Associates.
- Curriculum Redesign. (2016). *The Conceptual Framework for New Curriculum Design*. Retrieved from https://curriculumredesign.org/wp-content/uploads/CCR-FoundationalPaper-Updated-Jan2016.pdf]
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., Brown, E., Ahtaridou, E., & Kington, A. (2010). *The impact of school leadership on pupil outcomes*. Department for Education: London.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Ewe, I. C., Faizahani, A. R., & Faragai, I. A. (2018). *Teachers' awareness towards 21st century teaching and its implementation (administrators' perspective)*. Atlantis press.
- Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2014). Supervision and instructional leadership: A developmental approach. Pearson.
- Gokdas, I., & Aydın, B. (2018). Teacher perceptions and attitudes towards 21st century learning skills. *International Journal of Curriculum and Instruction*, 10(1), 15-28.
- Goodson, I. F., & Hargreaves, A. J. (1996). Teachers' professional lives: Aspirations and actualities. In I. Goodson (Ed.), *The making of teachers* (pp. 32-50). London: Routledge.
- Guskey, T. R. (2002). *Professional development and teacher change*. Teachers and Teaching, 8(3-4), 381-391. https://doi.org/10.1080/13540600220137351
- Hakim, N. A. A., & Iksan, Z. (2018). Pengetahuan, Kemahiran Pelaksanaan dan Sikap Guru Terhadap Pembelajaran Berasaskan Masalah (PBM) dalam Mata Pelajaran Sains. *Paper presented at the Seminar Antarabangsa Isu-Isu Pendidikan (ISPEN2018), Auditorium Utama, Fakulti Pendidikan, Universiti Malaya*.
- Hargreaves, A. (2000). Four ages of professionalism and professional learning. *Teachers and Teaching: History and Practice*, *6*(2), 151-182.

Vol. 12, No. 2, 2023, E-ISSN: 2226-6348 © 2023 HRMARS

- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school.* Teachers College Press.
- Hassan, M. H., & Thambu, N. (2018). Moral teachers' self-efficacy in secondary school: a pilot study [efikasi kendiri guru pendidikan moral di sekolah menengah: satu kajian rintis]. *Muallim journal of social sciences and humanities*, 2(3), 161-176.
- Hill, H. C., Rowan, B., & Ball, D. L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42(2), 371-406.
- Kesici, S., & Erdogan, I. (2020). The relationship between teachers' attitudes and academic achievement. *Journal of Education and Learning*, 9(3), 1-12.
- Kim, H. J., & Lee, K. H. (2016). The effects of on-the-job training on teacher efficacy and classroom performance among Korean teachers. *Asia Pacific Education Review*, 17(2), 219-233.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741–756. https://doi.org/10.1037/a0019237
- Lim, C. P. (2012). Effective integration of ICT in Singapore schools: Pedagogical and policy implications. Educational Technology Research and Development, 60(5), 703-719.
- National Education Association (2010). *Preparing 21st Century Students for a Global Society:*An Educator Guide to the Four Cs. http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf
- Osman, K., Halim, L., & Ismail, H. (2019). Investigating the relationship between teacher attitude towards 21st century learning and students' performance in Malaysia. *International Journal of Emerging Technologies in Learning*, 14(3), 85-99.
- Osman, M. Z., Kob, C. G. C., & Abdullah, S. S. S. (2019). Competency of Teachers in Teaching Practical Implementation of Subject Furniture Manufacturing for Malaysian Skills Certification Program. *International Journal of Academic Research Business and Social Sciences*, 9(5), 78–89.
- Pekrun, R., & Elliot, A. J. (2009). Achievement goals and achievement emotions: Testing a model of their joint relations with academic performance. *Journal of Educational Psychology*, 101(1), 115–135. https://doi.org/10.1037/a0013383
- Sleeter, C. E. (2012). *Un-standardizing curriculum: Multicultural teaching in the standards-based classroom*. Teachers College Press.
- Voogt, J., & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies*, 44(3), 299-321.