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Exploring School Climate and Teacher Self-Efficacy in Indonesian Senior High School

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[1] ARTICLE INFO	ABSTRACT
	School climate and teacher self-efficacy were correlated with research areas on physical, physiological, and personal and collective beliefs. Quantitatively, prior studies have reported positive results on students' performance. However, scant evidence in the school climate body of literature explored from a qualitative perspective to describe why and how teacher self-efficacy contributes to a positive school climate beyond students' performance. Therefore, this study explores school climate and teacher self-efficacy in an Indonesian senior high school. Moreover, this study approached Yin's (2018) case study with qualitative design. The case was one of an urban school with the school's paradigm and policy to integrate technology into the teaching process to face the entertainment industry. Eight teachers were recruited from four subjects (e.g., Bahasa Indonesia, Physical, Social, and Biology). The data were collected through observations and interviews, and we employed thematic analysis. Our study shows that 1) physical school climate with sufficient school facilities and technology supported the development of good school climate that facilitated teachers to seek feedback and reflection; 2) teachers' self-feedback and peer evaluative feedback became a point of departure for teachers' engagement with teachers' sources of self-efficacy that affected their development of teaching performance and strategy. Theoretical and practical implications of school climate and teacher self-efficacy will also be discussed.

1. INTRODUCTION

Indonesian education has been funded by the government and others to enhance the teaching and learning quality (Heyward et al., 2011) regarding school climate. School climate is delineated as encompassing elements, including physical school environment and teaching-and-learning-facility elements (Cohen, 2006; Loukas, 2007; Wang & Degol, 2016). Moreover, other scholars (Brookover et al., 1978; Loup, 1994; Schoen & Teddlie, 2008; Van Houtte, 2005) also argued that psychological attributes are included in the school climate because of school culture. Various disciplines, psychology and anthropology, reported the relationship between school climate and school culture. Moreover, nowadays, scholars use both terms interchangeably because people's perceptions of physical school climate shape schools' norms, goals, beliefs, interactions, and learning processes (Cohen et al., 2009). Furthermore, according to social cognitive theory, self-efficacy is included in physiological elements of school climate that view an individual as possessing the capacity to control their action and mutual interaction between the individual's behavior, surroundings, environments, and cognitive process (Bandura, 1977, 1986, 1997). Therefore, within the framework of this study, school climates encompass the physical environment of schools (e.g., physical school design of technology integration, natural elements, safety, cleaning, etc.) and psychological attributes emphasizing self-efficacy.

From physical aspect of school climate, numerous scholars have closely investigated physical school climate, recognizing substantial elements for fostering or hindering school teaching and learning effectiveness (Grazia & Molinai, 2021; Li et al., 2023; Thapa et al., 2013). In the early works on physical of school climate, McGuffey

(1982) conceptually proposed a significant relationship between schools' physical condition (e.g., building age, lighting, temperature, air quality, etc.) and students' academic achievement. Moreover, physical school climate implies influencing students' performance by enhancing architectural conditions of schools, for example, by providing more school social environments and integrating scientific laboratories and technology systems to accommodate student, teacher, and parent interactions (Uline & Tschannen-Moran, 2008). Although prior studies emphasize students' performance in physical school, we argue that it also affects teachers because they must utilize and strategize in using schools' physical condition in teaching and achieving students' high performance.

From psychological aspect of school climate, social, emotional, intellectual, and physical safety become primary people's needs (Maslow, 1943). In education, schools that could maintain a positive school climate tended to prevent physical, emotional, and cyberbullying (Acosta et al., 2019). We could argue when schools provided enough security cameras, and students would think twice before they conducted physical bullying. Facilitating consulting room and maintaining students' privacy, students would also have more willingness to report the bullying cases (Cui & To, 2021; Frazier et al., 2021; Izadi & Hart, 2023). Furthermore, teachers also have to build awareness among students on positive school climate. Therefore, it is crucial to recognize teachers' self-efficacy, that some self-efficacy sources are tied to physical school environments, and social factors influence other self-efficacy sources. Moreover, Bandura (1997) conceptualized self-efficacy sources into 1) enactive mastery experience, 2) vicarious experience, 3) social persuasion, and 4) physiological/ affective states.

Enactive mastery experience refers to an individual's accomplishment or lack thereof of challenging experiences. Furthermore, high self-efficacy can be achieved by reflecting on people who have successful stories of completing demanding tasks. Therefore, they could reflect on facing similar situations in the present (Bandura, 1997). In the context of school climate, enactive mastery is enacted to teachers' reflection by comparing their own past and present experiences to utilize school facilities and environments, and to build engagement with students by providing warm learning situations. Therefore, we argue that teachers might have more confidence in integrating new learning tools and school facilities when they are already experienced in teaching or training programs. However, we also speculate that although the school is already designed and facilitates a physical environment, teachers with failure experiences may hinder the use of schools' facilities, according to Bandura (1997).

Vicarious experience discusses how individuals reflect on influential figures' (lecturer, other teacher, mentor, etc.) performing tasks compared to their own performance. This study had two effects: 1) influential figures' successful stories in accomplishing their task could elevate individual self-efficacy, but 2) influential figures' failure demonstration will also decrease self-efficacy (Bandura, 1997). In teaching context, teachers may observe other teachers who could maximize the potential of school environments (e.g., school lab computer, schoolyard, etc.). They integrate innovations into their teaching and learning materials to foster students' engagement. Therefore, teachers may reflect on their teaching and implement into their practices. However, other teachers' unsuccessful stories may be avoided by teachers.

Moreover, personal reflection is not enough for self-efficacy development. Social persuasion plays a role in individuals looking for evaluative feedback on their performance from more credible people (Bandura, 1997). In building a positive school climate, teachers need various feedback from other teachers, the headmaster, school members, and especially students. Teachers might know how comfortable their students are with utilizing different school physical environments and building learning atmospheres. However, Bandura (1997) emphasized positive feedback, giving meaningful self-efficacy. In contrast, Moradkhani et al. (2017) found positive feedback could also be reinforcement for developing someone's self-efficacy. Therefore, positive and negative feedback are essential for teachers.

In the last source of self-efficacy, perceptions of physiological or affective states emerge while tasks are accomplished. For instance, teachers felt trembling or cold hands after operating and explaining using new school falsity, indicating excitement or fear of losing face in front of students or other school members. Bandura (1997) notes, "in judging their capabilities, people rely partly on somatic information conveyed by physiological and emotional states" (p. 106). Furthermore, those resources of teacher self-efficacy pertain to teachers' beliefs in their capacity to affect students' performance (Hoy et al., 2009; Kouhsari et al., 2023; Nguyen et al., 2023; Yada & Savolainen, 2023). We argue that their beliefs are also affected by external factors (e.g., school facilities, environments, tools, etc.) that would affect their teaching and communication performance with students and

school members.

Therefore, school climate has become a concern for scholars because it could affect students' performance, motivation, and academic achievement (Forsberg et al., 2021; Li et al., 2023; Nassar et al., 2019). Students could have high learning motivation and academic output because teachers are essential in cultivating and sustaining warm, emphatic, and supportive relationships with students (Lei et al., 2016; Roorda et al., 2017; Li et al., 2023). Moreover, the physical environment of schools is also an essential factor that needs to be managed to support the successful learning process, encourage interpersonal relationships, protect students from harm, and discipline school members. The significant role of teachers in school climate (see Lei et al., 2016; Roorda et al., 2017; Li et al., 2023) could be examined through their self-efficacy.

Furthermore, Bandura (1997) acknowledged that "self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations. Efficacy beliefs influence how people think, feel, motivate themselves, and act" (p.2). Therefore, teachers' teaching decisions could be manifested from their successful and unsuccessful teaching experiences. Their beliefs can change regarding their experiences to maximize learning potential by operationalizing the school climate.

In the body literature on school climate, Thapa et al. (2013) suggested a demand exists for further investigation with qualitative approach because studies on teacher self-efficacy and school climate were mainly approached with surveys in Finland (Yada & Savolainen, 2023), Israel (Zysberg & Schwabsky, 2020), Vietnam (Nguyen et al., 2022), and Australia (Aldridge & Fraser, 2016). All of studies reported a positive relationship between teacher self-efficacy and school climate. Therefore, there is an unexplored area to unfold teacher self-efficacy and school climate beyond quantitative-study positive results. Therefore, this study aims to explore school climate and teachers' self-efficacy in Indonesian senior high schools. Therefore, this study proposes a research question: "how does a positive school climate develop teacher self- efficacy?".

2. METHODOLOGY

Yin's (2018) case study was employed to capture school climate and teachers' self-efficacy in one of the public senior high schools in Indonesia. This public school is in an urban area in a big city in Indonesia. School facilities (e.g., laboratory, gym, public space, linguistic landscape, and technology support) have been developed to support students' learning activities and achieve maximum outcomes. This school also paradigmatically sees the potential of a digital industry, so the school wants to explicitly educate students' digital literacy.

The researchers employed eight meeting observations during the three-month study and an interview with each teacher to collect the data. We documented our observations with observational notes, pictures, and videos. Observations were conducted from indoor and outdoor classroom activities to investigate how teachers interacted with students, teachers, and other school members. We also observed how teachers used school facilities and how they integrated them into their teaching. After a three-month study, we conducted in-depth interviews with each teacher to see teachers' beliefs on self-efficacy sources. We generated the questions from our research questions and Bandura's (1997) self-efficacy model. There were enactive mastery experiences (e.g., how did your past unsuccessful teaching in the laboratory help you to shape your present teaching?), vicarious experiences (e.g., how does your figure successful out-of-class teaching help you to improve your out-of-class teaching?), social persuasion (e.g., how do you collect feedback from other teachers? and how do you use them?), and physiological/ affective states (e.g., What do you feel when you teach using AI in the computer lubritorium regarding your subjects?).

Table 1. Participants' Demography

Name(s)	Age(s)	Gander(s)	Teaching Experience(s) at the school
01_Bahasa_Indonesia	32	Woman	7 years
02_Bahasa_Indonesia	38	Woman	10 years
01_Physical	42	Man	15 years
02_Physical	34	Man	7 years
01_Social	35	Woman	7 years
02_Social	50	Man	17 years
01_Biology	35	Man	7 years

02_Biology	55	Woman	20 years

In this study, all authors did not intervene in teaching activities during indoor and outdoor classroom activities because we were considered as outsiders. Using Braun and Clarke's (2008) thematic analysis, we transcribed, tabulated, and analyzed observation and interview data. Employing a deductive approach, our data codings were driven by Bandura's (1997) self-efficacy and research question. To minimize bias in the coding process, the first and second authors independently coded the data. Our team transcribed the videos from the observations and interviews in the beginning stages. Then, we familiarized our teams with the data, grouped transcript observations, carefully read data, and highlighted and put code in the data. During this open coding, we went to observation data with identical operations, notching similarities and different results from observation and interview.

3.   RESULT AND DISCUSSION

Our thematic analysis found two themes, including 1) physical school climate and 2) teachers' self-efficacy from each source on school climate. Moreover, there were two sub-themes under self-efficacy sources, including a) teachers' self-feedback on school climate as source of enactive mastery experience and vicarious experience, and b) teachers' peer feedback on school climate used for social persuasion and physiological states. This study indicated that a well-designed physical school climate (e.g., facilities and technology) contributed to retaining a positive atmosphere of school climate. Furthermore, teachers became engaged in seeking feedback and reflection. This process became a means for teachers to connect to the source of self-efficacy.

Physical school climate

Our observation showed that the physical school conditions were very sufficient. For instance, books in the library were regularly updated by the school. In contrast, this library condition was rarely faced in other schools in Indonesia. This school had local and international book collections. Other schools might not have international book collections because books from international publishers are expensive in Indonesia. Therefore, sufficient book resources for students' cognitive development support teachers in teaching process to provide various references from local, national, and international points of view.

Furthermore, facilities for disabled students became one of this school's primary concerns. This school provided 1) ramps to accommodate wheelchairs; 2) wider stalls, grab bars, and sinks in the restrooms; 3) braille; and 4) supportive linguistic landscape (e.g., wheelchair signs including accessible for wheelchair, wheelchair ramps, no wheelchair access, etc.). Although there was no disabled teacher at school, those facilities helped teachers to accommodate various students' needs because disabled students were grouped in the same class as regular students.

Different from other regular Indonesian public schools, this school provided various gym facilities (e.g., 1) gymnasium for basketball, badminton, or volleyball; 2) strength training equipment; 3) locker rooms; and 4) accessibility for disability with wider doors and accessible seating area). This public school facilitated gym facilities for students to be more productive and achieve maximum results in popular sports (e.g., badminton, soccer, traditional martial arts [*Pencak Silat*], and basketball). However, gymnastics activity was less accommodating because there were no specialist teachers in gymnastics. Those facilities also helped physical education teachers teach and train students.

One of the innovations of this school was podcast laboratory used for language and art development supported by broadcasting technology (e.g., editing computers, cameras, microphones, mixers, etc.). Language and art teachers could elaborate their teaching activities with these facilities. The policymakers emphasized that the podcast laboratory was developed to support students' needs and prepare student skills after graduation in digital industry jobs (e.g., YouTuber, celebrity, TikTok, etc.). Moreover, this school was in a big city where the digital industry opened opportunities for them to pursue careers. Therefore, students with sufficient skills could prepare them for the real world after graduation. Moreover, this laboratory was new, challenging teacher skills to accommodate the students' needs.

This school also campaigned for anti-bullying by providing some linguistic landscape about the effect of bullying, and they also made a podcast story about bullying. Moreover, many cameras were installed to monitor some areas that were potentially used for physical bullying, and there were some anti-bullying boxes to report

bullying cases, including cyberbullying. Therefore, students' awareness of bullying was developed because of well-developed school climates (Acosta et al., 2019; Cui & To, 2021; Frazier et al., 2021; Horton et al., 2023; Izadi & Hart, 2023). Therefore, we argued that teachers did not spend much time overcoming social interaction issues activities, and they focused on development of students' performance (Hoy et al., 2009; Kouhsari et al., 2023; Nguyen et al., 2023; Yada & Savolainen, 2023).

This study also agreed with McGuffey (1982) that schools' physical condition was very important for student achievement and teacher performance. For example, building age was regularly renovated, lighting was enough to support students' reading activities, temperature was maintained by air conduction in each room, creating a pleasant learning process, etc.

However, air quality was also considered by McGuffey (1982), who added that indoor classroom activities have no issues. However, air quality from outdoor classrooms is terrible for outdoor activities that affect students' performance, for instance, physical activities. However, we did not rigorously measure indoor air quality at school, but we used local reports, so it was different from Kim et al.'s (2023) work. This situation made students and teachers prefer indoor activities.

Because the outdoor activities declined students and teachers' productivity, the indoor gym building was constructive to maintaining the school climate regarding physical activities. Furthermore, the gym building was integrated with technology. Moreover, Uline and Tschannen-Moran (2008) pointed out that technology integration into physical conditions could elevate students' performance. Moreover, this study added that students' performance was achieved because teachers' technology knowledge could fully maximize technology in terms of pedagogical aspects for assessment, feedback, communication mode, and 21st-century learning skills.

This school faced air quality issues and had to deal with potential floods during the rainy season. Safety was a top priority of this school by making the building higher, building flood barriers, and installing sump pumps where the school was designed to prevent floods coming to the school and unpleasant school climate effects (Lessa et al., 2023).

This study indicated that different from regular Indonesian public school facilities were reported to be insufficient (Hasbullah et al., 2011). Although this school has faced a lot of natural disasters (e.g., air quality issues and floods), it could maintain its school climate by maintaining school physical conditions and regularly training teachers (Dawabsheh et al., 2020). Therefore, teachers could maximize technology integration, disability-friendly, and safety measures.

Teachers' self-efficacy from each source on school climate

Our study indicated teachers' self-efficacy related to school climate regarding teacher interpersonal communication and school facilities that could shape teachers' mastery experience, vicarious experience, social persuasion, and physiological states. Moreover, teacher self-efficacy refers to how teachers' confidence to utilize physical and psychosocial around school climate to influence student performance that could be achieved by sufficient teacher collaboration (Hoy et al., 2009; Kouhsari et al., 2023; Loughland & Ryan, 2022; Nguyen et al., 2023; Voelkel & Chrispeels, 2017; Yada & Savolainen, 2023).

Teachers' self-feedback on school climate as source of enactive mastery experience and vicarious experience

We found Bandura's (1997) two sources of self-efficacy of enactive mastery experience and vicarious experience related to teacher's self-feedback on school climate. Teachers experienced successful and failed teaching with various school facilities, although they were more willing to develop their teaching competencies when they faced failure. They argued that most teachers were very supportive in teaching practices and encouraged each other to meet their failure experience, although they did not directly give feedback when one did not ask. For instance, when two Bahasa Indonesia teachers could not operate some tools in the podcast room, they were willing to seek self-feedback obtained by observing technology teachers who were more experienced with the hardware and software used in the room.

> *I had some failed experiences in teaching speaking in a podcast laboratory. I was unfamiliar with the hardware and software used there but was tempted to try by trial and error first. Then, I reflected if I wanted to maximize my capacity to operate hardware and software, I should learn from other teachers by observing them. Then, I asked one of the technology*

teachers and joined his class to see how he teaches students. If I did not learn, I could not expand my teaching skills because the school had already facilitated it, and not many schools have similar facilities. I also saw my students' needs and their interests on social media. This laboratory could expand my language teaching for students' language skills. I also saw my students more independent in learning technology, so teachers could not leave behind their skills. Our school also has a small kitchen like cafe for teachers, so I could informally discuss when I still have problems with other teachers and share a meal there. (01_Bahasa_Indonesia teacher's interview)

Teachers reflected on their informal conversations with other teachers, which could also be a source of seeking problem-solving from other teachers as references. Moreover, Yada and Savolainen (2023) reported creating supportive environments and conditions that potentially built teachers' leadership. Furthermore, when teachers develop their leadership skills, it affects their job satisfaction and self-efficacy (Aldridge & Fraser, 2016). Although Bandur (1997) pointed out positive and successful experiences from teachers themselves or others that contributed to development of their self-efficacy, our study showed that teachers did not feel discouraged from their failed teaching experiences. Because they used those experiences and realized them as valuable assets for their personal teacher identity, we argued that our finding differs from a theoretical perspective because of technology integration's role in school climate. Schools nowadays support post-service programs that reduce teachers' failure experiences by sending teachers to teacher professional development (PD) programs. In PD programs, they faced many failure experiences from other teachers and their own teaching practices. Therefore, they became resilient and indicated high self-efficacy and self-regulation.

I have a successful experience in the first attempt to use podcast laboratory because I have experience in the PD program for teaching with technology, so I am familiar with software. However, for hardware, I needed to try, but for me, it was self-explanatory. Therefore, I always use this room for practicum, where students can produce podcasts, videos, and blogs. I usually made them work in groups, which aligns with our curriculum expectation of project-based learning. (02_Bahasa_Indonesia teacher's interview)

Our study showed some teachers were open and adaptable with technology and feedback. They reflected the use of technology in teaching, potentially expanding students' performance, motivation, and academic achievement (Forsberg et al., 2021; Li et al., 2023; Nassar et al., 2019). Moreover, teachers used students' feedback as one of the sources for their self-feedback that enacted teachers' enactive mastery experience and vicarious experience. For example, physical teachers were very confident in teaching with gym facilities because technology integration in the gym was reported to help facilitate and give evaluative feedback to students.

We are very familiar with smartphones; today, the smartphone's camera is excellent. And the school has a lot of tripods that I could use with my smartphone and students, and I put them around the gym. We have one room with a computer and a big LCD [42-inch display television], so we could project the result of our practices, especially for my students who want to pursue their dream as professional athletes could reflect their performance. (01_Physical teacher's interview)

Sometimes, I see other teachers use the school's facilities. They are creative in using technology to give feedback, using music to make students less pressured, and accommodating students with special needs to have sports practices. I also learned from them when we brought students to the gym. (02_Physical teacher's interview)

We have a regular biology laboratory, so my students could practice there for laboratory practicum, but sometimes, I also use a computer laboratory to teach biology. Some microscopic things are difficult to capture from our biology laboratory's tools at our school. So, to give visuals

to my students, I used a computer for students' visual observation because I wanted to capture book explanations. (01_Biology teacher's interview)

Now, our schools have technology support in each class, where we provide one computer in the corner, a classroom projector, and Wi-Fi. Those facilities changed the way I teach my students. Before, my class was quiet because my students were shy about expressing their opinions. Now, I could use Mentimeter or Padlet in my class, and students write their thoughts with their smartphones so that I can cover all students' opinions and engagement toward my materials. I also observed language and art teachers used a podcast laboratory a lot, so I also wanted to use that for my subject to make some podcasts related to Indonesian history, or I could collaborate with language teachers to complete this project. (01_Social teacher's interview)

We found teachers' teaching philosophy interconnected to school climate regarding technology use in teaching. For example, 1) the first social teacher used physical school climate to support "democratization" in education to cover all various students' voices (Bueno-Alastuey et al., 2018); 2) the first biology teacher used school climate for "visualization" to represent information in visual mode (Drajati et al., 2018); and 3) the first and second physical teachers utilized for "reflection" (Baxter et al., 2021).

Before the school massively adopted and integrated technology, feedback and references for teachers were challenging to obtain, primarily for teaching students with special needs, because teachers were not trained or learned during their pre-service. They learned how to handle students with special needs during in-service, so role figures who successfully taught students with special needs became important in teacher self-efficacy development.

Around ten years ago, teaching students with special needs was difficult because I had no training and lacked teaching experience. Back then, internet access was also limited for teachers to find information. Then, I observed other prior teachers from different subjects at school on how they teach students with special needs. Then, I tried to replicate and develop my way of teaching students with special needs. (2_Social teacher's interview)

Our mental process with participants found that senior teachers had to teach dilemmas with technology and gamification, which were enacted to teach self-efficacy. Although school climate and policy supported the development of integration learning with technology, teachers' beliefs on teaching did not automatically change. She pointed out that focusing on developing enthusiastic, emphatic, and encouraging relationships with students in the class was more important than technology that was similar results to previous works (e.g., Lei et al., 2016; Roorda et al., 2017; Li et al., 2023).

I learned so much from other young biology teachers. They were creative in teaching biology, integrating technology into teaching, and making students curious to know biology. However, I feel the teaching dilemma about teaching biology with technology, especially with video games. Although video games used by other teachers are designed for biology, books are still more beneficial because we have an outstanding collection of books in the library. Making students work with digital devices, I feel students are too lazy to learn from printed books. So, I preferred to bring students to the library, and they did group work. Supervising more than 20 students in one class is easier for me. If I used a computer, I am afraid only a few students who can use technology would take over the whole project. However, I did not again use technology in class, but I preferred to go with my students to the library, school yards, and biology laboratory so that they could interact directly with the subjects of our observations (02_Biology teacher's interview)

According to Bandura's social cognitive theory (1997), teacher self-efficacy could not be separated by personal beliefs about their capacity to achieve learning objectives. Therefore, teachers build their building blocks to retain traditional teaching when teachers' teaching beliefs are against integrating teaching technologies

or school environments. Moreover, teachers' collective beliefs also construct how school climate is maintained physically and psychologically because Bandura (1997) explains collective efficacy orients to future beliefs on their capacity and skill that anticipate specific situations or contexts. Therefore, we argue that teachers with openness and adaptability through technology integration could maximize various modes of communication and relate to student needs in 21st-century learning skills.

Teachers' peer feedback on school climate used for social persuasion and physiological states

Moreover, evaluative feedback from other teachers and school stakeholders indicated a strengthening in how teachers manage school climate because teachers seem to focus on content and pedagogical aspects. The school headmaster reminded teachers who paid less attention to managing physical environments to accommodate student needs. He played an essential role in building physical and physiological school climate, where he attempted to make teachers' working spaces interactive for teachers' sharing. Our observation found technology integration becoming one of the core of building feedback.

> When I got teaching feedback from my headmaster, I felt very nervous. However, he gave good evaluative feedback and openly discussed how I could elevate. He would display one of our recorded teaching activities in the school's meeting room from the classroom's CCTV. He would ask first what I was doing and what happened in the classroom. He would make me share my challenges in teaching. Then, he also asked other biology teachers similar questions. But, I could still manage my nervousness because there were other teachers from different subjects, for example, mathematics, chemistry, history, English, etc. We had same problems with students' report projects. We found most of them used ChatGPT for their essay because ChatGPT can give feedback in Bahasa Indonesia and English, especially English. Then, he offered to share ideas on preventing students' actions because we could not blame ChatGPT. He allowed us to give each other feedback from various points of view and language teachers' perspectives. Because my headmaster graduated from post-graduate school, we received additional feedback from research perspectives. He encouraged us to build students' AI literacy. He asked us to explain what will happen to students when they depend on only ChatGPT for their future careers and what they will lose regarding skills. (01_Biology teacher's interview)

Teachers' social and emotional support encourages teachers to reflect on their professional and personal career developments (Baxter et al., 2021). We found that school climate also contributes to building space for safety sharing so that teachers can open up their vulnerability in teaching. Moreover, various PD programs that the school supported played crucial in building teachers' awareness of the school climate. Furthermore, this school had a memorandum of understanding (MOU) with one of universities to provide teachers with provisional development under collaboration research programs. Moreover, teachers working closely with experts allowed them to escalate international collaboration facilitated by suitable school climates.

> Our school provided additional technology training at school for us because our school collaborated with one university in this city. They allowed lecturers from one university to conduct research in the school, but they needed to make teachers provisional development for us because 59 teachers were working in this school. Meeting lecturers, I felt excited because I would meet more experienced language teachers who could empower my teaching. They brought some design into teaching with technology in the classroom, and we got evaluative feedback from them. Because I teach Bahasa Indonesia, living in this city makes language input already sufficient. So, they give me feedback focusing on language output. We tried to encourage students to promote Bahasa Indonesia by elaborating teaching with one of the Australian schools so students from different countries could practice using Bahasa Indonesia in an online platform, which was fun. I used a computer laboratory during the program, so I needed to coordinate with two different teachers during the project, English and technology teachers, to reduce the language barrier and provide a smooth running program. I like group teaching like this because I also got feedback from English and technology teachers

that I was unaware of some ethical considerations. (01_Bahasa_Indonesia teacher's interview)

Our findings are supported by quantitative studies of Yada and Savolainen (2023), Zysberg and Schwabsky (2020), Nguyen et al. (2022), and Aldridge and Fraser (2016) that teachers' beliefs and teaching paradigm (e.g., democratization, gamification, visualization, etc.) foster a favorable school climate. Moreover, their beliefs and paradigms promote teachers' teamwork, willingness to participate in decision-making, and confidence in their self-efficacy. For example, two physical teachers showed their collaboration with various experts to support students with special needs to participate in sports programs. They had to handle how to manage a physical environment to maintain a psychological school climate.

As a physical teacher, I did not work alone, especially during school extracurriculars. Our school would invite experienced athletes as coaches, for example, Pencak Silat, Wushu, Taekwondo, Karate, and dancing. I handled the football team, and other physical teachers took different extracurriculars, for instance, badminton, volleyball, climbing, etc. Because football is a popular sport at this school, many people give me feedback from other teachers. I feel happy and excited to listen to their criticism and support because everyone can watch our performance on the school's television, so I constantly receive feedback. Regarding managing the football team and all facilities, I got a lot of advice from the extracurricular coordinator because I also need to look after the physical and emotional of students and all facilities to give maximum support. For example, he gave feedback on how I manage the football club rooms. Then, we added circle tables and a computer so I could provide more visual feedback by searching on YouTube, reading articles, and discussing with students. From this experience, I learned that I could use not only the physical but also the cognitive of students. I attempted to listen to various people with various backgrounds, reflected on my team, and selected the best decision for my team. (02_Physical teacher's interview)

The most challenging part of working as a physical teacher is to teach students with special needs. I need to give them the same opportunities, but I have concerns about their safety, including potential risks and injuries. Luckily, my senior physical teachers gave me some advice on handling this situation, and my physiological teachers also gave me some advice from a psychological perspective on what I could do and should avoid. Implementing those devices was applicable due to schools' support in terms of facilities and equipment. First, I motivated students with physical disabilities with videos of Indonesian disability athletes. Then, I asked my students about their preferences for those sports. I tried to implement it by making wheelchair basketball. It was fun, and I felt so relieved about my worries. (01_Physical teacher's interview)

We agreed with previous studies about giving evaluative feedback that could provide a mutual understanding of situations and validation among teachers when others share their challenging experiences (Baxter et al., 2021). Physiologically, Baxter et al. (2021) also pointed out that teachers felt less pressure to transform their vulnerability and failure experiences into other approaches by sharing their vulnerabilities and failures. Because it allowed teachers to get high-quality evaluative feedback from more experienced teachers or experts, strengthening their capacities in incorporating a school climate and technology. Our study indicated that a well-developed school climate could transform teachers' paradigm from traditional teaching to more adaptability and openness to technology. Moreover, Frazier et al. (2021) emphasize that a school environment fosters level of safety, a sense of belonging, and communication that could elevate students' high achievement. In line with prior studies (Loughland & Ryan, 2022; Voelkel & Chrispeels, 2017; Yada & Savolainen, 2023), this study confirmed teachers' changes can significantly enhance a positive school climate by giving chance to collaboration and provision of evaluative feedback. Our qualitative study confirmed Bandura's (2009) self-

efficacy model (see. Figure 1), where self-efficacy contributes to three aspects, including 1) outcomes expectations, 2) goals, and 3) sociostructural factors.
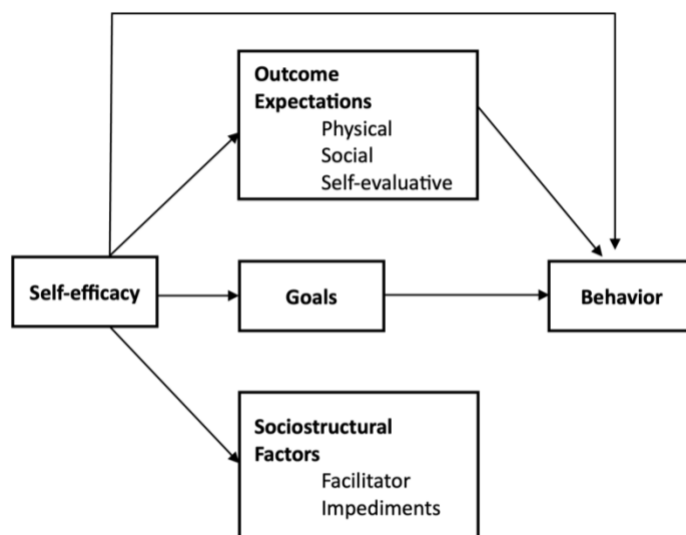

Figure 1. Bandura's (2009) Self-Efficacy for Personal and Organizational Effectiveness

Our study demonstrated that outcome expectations were connected to physical and psychological school climates used for self-feedback or -evaluation. Moreover, teacher-to-teacher was willing to seek self-evaluative feedback. Moreover, sociocultural factors of our participants also indicated that the headmaster, school stakeholders, and collaborator experts played roles as facilitators to help teachers who faced challenges and vulnerability. Teachers' outcome expectations and sociostructural factors also contribute to the school's goal and their personal goals. Those factors manifested in teachers' behavior on school climate toward their openness from technology integration, willingness to seek feedback, and self-evaluation. This study indicated that a positive school climate contributes to teachers' high self-efficacy because they are not easily discouraged by failed experiences, but they instead see the potential for future improvement (Aldridge & Fraser, 2016; Frazier et al., 2021; Kouhsari et al., 2023; Nguyen et al., 2023; Yada & Savolainen, 2023).

4.   CONCLUSION

This study explored Indonesian senior high school's school climate and teachers' self-efficacy. Our study shows that sufficient school facilities indicate building good school climate, allowing teachers to seek feedback and empower self-reflection. By facilitating teachers' self-feedback and peer evaluative feedback, allowing them to reflect on their self-efficacy sources, teachers who could maintain physical and psychological school environments and technology supports affected their teaching beliefs and performances.

This study reported theoretical and praxis implications. Regarding theoretical implication, enactive mastery and vicarious experience correlated with teachers' self-feedback, where teachers generated feedback internally. However, implicit external feedback or circumstances may affect their internal process from successful or failed teaching experiences. On the other hand, social persuasion and physiological states were enacted to provide evaluative and explicit evaluative feedback. Bandura's (1997) self-efficacy sources were also affected by teachers' beliefs on school climate so that teacher self-efficacy could be increased or decreased regarding the situation on school climate.

Practically, it shows that a school climate supported by technology develops teachers' willingness to give feedback because feedback can be generated from recorded videos and surveys explicitly and implicitly. Moreover, feedback is used as a catalyst of self-efficacy sources, including enactive mastery experience (e.g., teachers could evaluate their successful and failed teaching performance from various media including video, survey, and student scores), vicarious experience (e.g., teachers observed and used other teachers' performance who could maximize school climate as a source of feedback), social persuasion (teachers ask or get feedback

from experts, other teachers, or school policy maker), and physiological states (teachers believed and perceived on various internal and external feedback).

However, this study is limited in terms of context (e.g., one of the public schools in an urban area in Indonesia), participants (only six teachers), and data collection method (observation and interview). Therefore, future studies could elevate by inviting various schools from urban and rural areas and comparing private and public schools. The demography of participants can be promoted by recruiting more participants. Methodologically, because our study indicated that teachers used reflection, reflection can be used to collect data to assess how teachers change their beliefs in the longitudinal study.

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