CHAPTER II

CONCEPTUAL FRAMEWORK

2.1 Overview Theory

In this chapter, related theories from literature review will be explained to support the research.

2.1.1 Management of Education

The term 'education' has several definitions. Based on Merriam-Webster, the word 'education' is described as (1) The process of educating or being educated; (2) The knowledge resulting from the process of being educated; and (3) The field of teaching and learning method in schools (Merriam-Webster, 2021). Meanwhile, based on Hegel's conception of education, the term 'education' refers to the development of mankind's nature to aim for an all-rounded development of personality. Hegel's concept was closely related to two sides of the human community: culture and human freedom (Naziev, 2017). From the etymological approach, 'education' consisted of two Latin words, (1) *educere* or to train; and (2) *educatum* or the act of teaching. Education is also described as an instruction to encourage children's development. In an analytical context, 'education' was explained as (1) The act of learning throughout various life experiences; (2) The development of a child's foundation; (3) The development process of encouraging flexibility in adapting to changing environment; and (4) The psychological and sociological development that involves three roles: The teacher, the child, and the society (Kumar & Ahmad, 2008). In this research, the term 'education' described the process of educating or being educated to encourage development related to the psychological and sociological aspects.

Previous literature has mentioned teachers as one of the three major roles in education (Kumar & Ahmad, 2008), they became an essential factor in education management. Indeed, teachers are responsible in ensuring the process of learning outcomes. Teachers are expected to know and understand the latest curriculum development. They should be flexible enough to arrange the syllabus with various

7

teaching methods. Thus, it was necessary to have a teaching method that maximizes curriculum management and learning outcomes (Anwar, 2018).

Education is considered the key to empower the nation. Through the national development plan, teachers could utilize the latest technology in their teaching method. The education ministry plans to integrate all resources in science and technology within the education framework. The commitment to advance education development with technology has been mentioned on the nation's roadmap towards 2030 (Kementrian Perencanaan Pembangunan Nasional / Badan Perencanaan Pembangunan Nasional, 2017). Since the emergence of the internet, digitalization has dramatically impacted the education system and promote various teaching methods. While developed countries have incorporated ICT as part of their curriculum, several developing countries are just starting to provide a basic concept of ICT literacy since primary school age (Quynh et al., 2016). The gradual ICT technologies development are expected to increase effectiveness and enhance students' learning capabilities.

2.1.2   The History of Indonesian's Education Development

The Indonesian education system were under the influence of changes in the political system, social condition, cultural situation, economy, and science development. As education became an essential part of human development (Kurniasari et al., 2018), the ministry has formulated curriculums with different learning outcomes. The first curriculum in Indonesia, named '*Rencana Pelajaran 1947*', replaced the Netherlands educational system to suit Indonesian people better that time. Other curriculums were called 'Curriculum 1947', '*Rencana Terurai 1952*', and 'Education Plan 1964'. Then another curriculum was introduced as 'Curriculum 1968' with Pancasila as the foundation of the learning activity. Then, The Ministry of Education and Culture established a student-centered teaching approach called '*Cara Belajar Siswa Aktif*', followed by 'Curriculum 1975', 'Curriculum 1984', and 'Curriculum 1994' in sequence. As a result of the political changes from centralist to decentralist in 2004, the ministry introduced 'Curriculum 2004', aimed to equip students with competitive skills for career. Then in 2006, the

ministry introduced '*KTSP*' or a school-based curriculum that allowed the school to determine their learning outcome aligned with the national guidelines. 'Curriculum 2013' was introduced to provide students with employability skills (Wahyuni, 2016). As a result of the COVID-19 pandemic, the ministry introduced distance learning and hybrid learning in response to school closures. Every curriculum development aims to provide an equal education to prepare the next generation for the future (Kurniasari et al., 2018).

2.1.3 The Definition of Hybrid Learning

The term 'hybrid learning' emerged since the rising number of synchronous communication tools for teaching and learning, such as online models of education (MOOC) (Alexander et al., 2014; Roseth et al., 2013; as cited in Raes et al., 2020). One of the examples of hybrid learning implementation was at University KU Leuven Campus Kulak Kotrijk where both students on-site or *here* and students in remote or *there* were connected and followed the same course simultaneously. The flexible learning approach was then introduced as "Here or There" instruction (Zydney et al., 2019; Butz et al., 2016; Hastie et al., 2010; as cited in Raes et al., 2020).
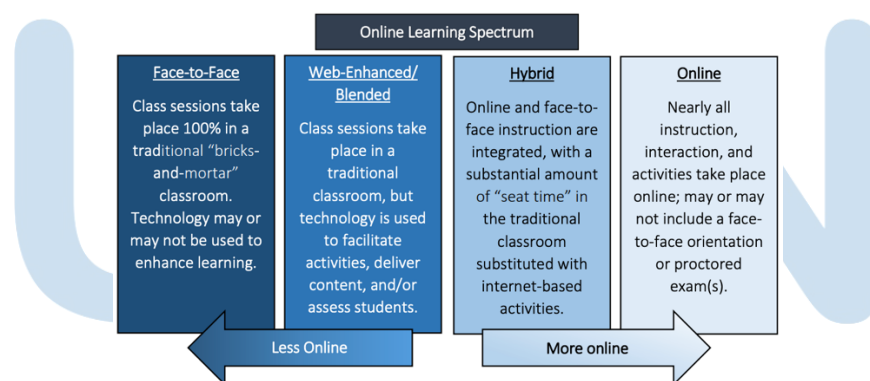

Figure 2.1 Online Learning Spectrum
(College of DuPage, 2020).

Whilst many used 'hybrid learning' and 'blended learning' interchangeably, College of DuPage (2020) stated a clear difference between them. Although there has been no exact evaluation of its similarities, the difference were based on the

An Analysis of Factors Influencing Teachers' Resilience to Teaching Effectiveness: An Empirical Study of Hybrid Learning During COVID-19 Pandemic, Vania Hefira, Universitas Multimedia Nusantara

proportion between the face-to-face and online sessions with the teaching material given in each session. Blended learning was more into face-to-face sessions than online sessions, whereas hybrid learning was roughly more balanced between the online and face-to-face class portions. Alternatively, hybrid learning was also thought to be similar to a 'flipped classroom', where students would review video lecturers on their own while those who come to class are the ones who want to explore more. The difference between them was that the focus of 'flipped classroom' was meant for reviewing learning materials, in comparison to hybrid learning that was more engaging (College of DuPage, 2020). In this study, the term 'hybrid learning' will be used to emphasize the balanced portion in teaching for both online and face-to-face learning.

2.1.4   The Benefits and Opportunities of Hybrid Learning

There were several benefits and opportunities that hybrid learning offered, which can be classified as follows:

1. **Flexibility**

    The reason behind its stronger level of learning outcomes compared to the face-to-face session was the flexibility to conduct an online session. It didn't shorten the lesson duration nor delayed the material demonstration but it allowed the interaction between student and teacher to happen. Hybrid learning cater both face-to-face and online experiences. In addition, the online experience offered opportunities to develop a sustainable learning exploration. It was suitable for students who are not comfortable speaking in front of the class (College of DuPage, 2020).

2. **Independent Exploration**

    Hybrid learning encouraged students' independent exploration, innovative collaboration, information and technology literacy, and content mastery. The independent exploration consisted of watching videos, finding learning materials to reinforce understanding, and completing assignments without time and place limit (College of DuPage, 2020).

3. Organizational Benefits

Hybrid learning solved the problem in low number of student enrollment. The learning approach became a value offered for students abroad to study remotely. It enabled an inclusive learning environment with the same learning outcomes regardless of the student's location (Lakhal et al., 2017; Abdelmalah and Parra, 2016; Butz and Askim-Lovseth, 2015; Wang et al, 2017; Wiles and Ball, 2013; as cited in Raes et al., 2020).

4. Pedagogical Benefits

There were several pedagogical benefits for the student. First, teachers were able to invite guest lecturers online without the need to worry about location and time constraint. Second, it encouraged students to be socially active in a diverse setting. Third, it allowed the opportunity for students to manage their time in accordance to their daily activity -which reduced the absenteeism phenomenon where students were too tired to attend class. Forth, it promoted active technology integration that improved the users' digital literacy (Bell et al., 2014; Bower et al., 2015; Anastasiades et al., 2010; Weitze et al., 2013; Butz and Askim-Lovseth, 2015; as cited in Raes et al., 2020).

2.1.5 The Issues and Challenges of Hybrid Learning

There were several challenges in the hybrid learning implementation. Compared to face-to-face classes, the hybrid class was not able to give the same real-time engagement in person. The real-time engagement in this context includes discussion, group work, presentations, and even in-depth engagement with visual cues and immediate interaction for a meaningful learning opportunity. Building a relationship between student and teacher behind the computer wouldn't be the same as when they were in face-to-face (College of DuPage, 2020).

2.1.6 The Definition of Teachers' Resilience

According to Edwards (2010; as cited in Eldridge, 2013), there were two theoretical frameworks about resilience. First, resilience is defined as using

personal capability and resources around in any given setting; and second, resilience is described as the relationship between the person and the system around them. Resilience was first introduced as a concept under the disciplines of psychiatry and developmental psychology through a study where two-thirds of children who grow through negative life experiences (such as poverty, abuse, neglection, and poor parenting) would develop a thriving behavior and positive reaction (Rutter, 1985, 1987; as cited in Eldridge, 2013).

There has been an ongoing debate on how to describe teachers' resilience as there were more research on childhood studies than teachers. But it was notable to explore teacher's resilience as they encounter stress in daily life. Teachers could learn skills to develop their resilience from time to time (Howard & Johnson, 2004; as cited in Schussler et al., 2018). Also, building resilience were seen beneficial for teachers on their daily basis (Beltman, Mansfield & Price, 2011; Day et al., 2009; as cited in Eldridge, 2013).

In addition, there have been several studies that showed teachers' emotional understanding impact on a more effective teaching and learning overall. Teachers need to be objective in understanding their emotions as it shapes their student's attitudes and responses to demanding uncertainties. Teachers with resilience could support their student to be resilience in addition to maintain their overall good wellbeing physically and mentally (O'Hanlon, 2000; Montgomery & Rupp, 2005; Fox-Wilson, 2004; Black-Hawkins, Florian & Rouse, 2007; Montgomery & Rupp, 2005; Gu & Day, 2007; as cited in Eldridge, 2013). It is necessary to study teacher's perspective on their emotional capabilities towards forming their resilience, to understand its effect on their teaching practice. Moreover, previous literature suggested further exploration in understanding teachers' stress and burnout. The exploration of how teacher responds and overcomes demanding uncertainties are worth to study (Howard & Johnson, 2004; as cited in Eldridge, 2013).

Johnson & Down (2013; as cited in Johnson et al., 2014) mentioned four concerns when talking about resilience, as follows:

1. It promotes human coping and protective factors (Johnson & Down, 2013; as cited in Johnson et al., 2014).

2. It promotes human improvement mainly rooted from pressure from problems (Johnson & Down, 2013; as cited in Johnson et al., 2014).

3. It promotes the understanding of positive and negative outcomes that are often overlooked in sociocultural (Johnson & Down, 2013; as cited in Johnson et al., 2014).

4. It promotes a manifestation of human behavior and wellbeing than a confirmation that life is dynamic and complex enough to influence wellbeing (Johnson & Down, 2013; as cited in Johnson et al., 2014).

As previously stated, 'protective factors' were essential part of human being. Fergus & Zimmerman (2005; as cited in Schussler et al., 2018) mentioned protective factors classified into two groups: (1) Assets or individual traits; and (2) Resources or external traits. Protective factors determine how much someone will perceive the changing situation negatively. Protective factors also include being less emotionally reactive upon facing changing circumstances for better self-care (Sharp & Jennings, 2016; Beltman et al., 2011; Schussler et al., 2016; as cited in Schussler et al., 2018). In addition, Johnson et al. (2014) outlined the importance of understanding and promoting resilience for early-career teachers. The ongoing challenges and social conception have diverted the attention to develop teacher's professional competence, to understand the success criteria of early-career teachers in achieving competency; to analyze other affecting factors on teaching experiences; and currently, to its urgency in supporting early-career teachers. In this research, teacher's resilience is defined as teacher's capabilities to respond and act positively upon challenging situations by utilizing the resources and system around them.

2.1.7   The Three-Dimensional Framework for Resilience

The three-dimensional framework for resilience was used to integrate resilience into a school curriculum. Knight (2007) suggested the three-dimensional framework for resilience to answer questions about resilience as a state, condition, and practice. When talking about resilience as a state, the research talked about the indicators of personal characteristics and their relationship with healthy development, also called the manifestation of resilience. Inspired by Benard (1991; as cited in Knight, 2007) and Wolin and Wolin (1993; as cited in Knight, 2007), the research proposed three variables that affect resilience, explained as follows:

1.   **Emotional Competence**

Studies have mentioned developing emotional competence would create resilience. The qualities of emotional competence are having a positive self-concept, an internal locus of control, being autonomous (having a well-developed sense of identity), and having a sense of humor (Knight, 2007). Masten et al. (1995; as cited in Knight, 2007) mentioned children who succeeded in life were the ones with more internal and external capabilities resources, as they were better problem solvers with higher self-esteem. The children's competence was a result of their upbringing through a variety of situations. They become more emotionally competent and would likely to bounce back in a situation that didn't go as planned. In addition, Pulkkinen (2004; as cited in Knight, 2007) also mentioned having an internal locus of control at an early age develops an adaptive social functioning in adulthood later.

2.   **Social Competence**

Previous researches mentioned social competence resulted in stable relationship. Masten et al. (1995; as cited in Knight, 2007) stated that children in supportive environment were more resilient when facing different demanding situations. Children who grow up with supportive adults around them develop a protective factor towards their growth. In this

context, teachers are potential supportive adults (Benard, 1991; Doll and Lyon, 1998; as cited in Knight, 2007).

In addition, previous research also suggested promoting the importance of social competency as an academic competency. The development of resilience at young age impact on a longer term occupational and life success. Resilience also prevent abuse, violence, and suicide issues (Fuller, 2001; as cited in Knight, 2007). Thus, it is considered important to promote encouragement in feeling connected, having a sense of belonging, and empathy in a supportive environment to prevent unwanted situations later in life (Fuller, 2001; Pulkkinen, 2004; as cited in Knight, 2007).

3. Future-oriented

Knight (2007) mentioned that being future-oriented as having a clear sense of purpose and feeling that their life has a meaning, having a sense of optimism, having the ability in solving problems and do reflection, as well as having the ability to be flexible and adaptive in new situations. Studies mentioned people with resilience reflected a belief that their life has a meaning. It became their strength in thriving in life (Werner & Smith, 1989, 1992; as cited in Knight, 2007). Other research mentioned the relationship between optimism and better adjustment in negative life settings for young people. Having a sense of optimism about their future becomes a protective factor in moving on in life (Brissette et al., 2002; Werner and Smith, 1992; Seligman, 1995; as cited in Knight, 2007). Additionally, people with problem-solving skills, especially in demonstrating metacognition, were able to see things beyond their current situation. They were able to find other ways and became more flexible with changes. The sense of flexibility was associated with a positive belief in their self-efficacy (Seligman, 2002; as cited in Knight, 2007).

It is considered necessary for teachers to be future-oriented so they could influence their students to develop their flexibility, adaptability, and

problem-solving skills. The sense of empowerment is essential for children in development age so they could cope with demanding uncertainties later in life.

2.1.8 The Definition of Teaching Effectiveness

Studies have mentioned that effective teaching promoted better student learning outcomes. It was plausible to assume that effective teaching should be seen from student's perspective. However, other studies has indicated students' satisfaction was out of teacher's control and was unrelated to the learning (Boring et al., 2016). There were several factors that affect teaching effectiveness. For example, high stress levels reduced effectiveness (Jennings & Greenberg, 2009; as cited in Schussler et al., 2018) but increased awareness and emotional regulations improved (Schussler et al., 2016; as cited in Schussler et al., 2018). Thus, it was plausible for teachers to feel increased responsibility and awarenesss on their own teaching (Schussler et al., 2018). Aligned, Sharplin, Peden & Marais (2016; as cited in Mansfield et al., 2020) mentioned there were professional teaching requirements in the context of socioemotional skills, such as:

    a. Self-awareness and self-management (self-knowledge, personal insight, reflection, confidence, organization, and time management).

    b. Social awareness and situational management (engaging with colleagues, interpersonal requirements, appropriate behavioral responses, flexibility, adaptability).

    c. Communication and relational skills (interactivity, acceptance, empathy, tolerance, cultural competence).

2.1.9 Computer Self-Efficacy

Previous literature has mentioned self-efficacy related to resilience, especially to the strengths in recovering and facing difficulties. Reforming poorly managed teaching management was closely related to building professionalism, which led to having self-efficacy (Bottery, 2005; Goodson & Hargreaves, 1996; Helsby 1999; Sachs, 2003; as cited in Gu & Day, 2007). There were several

teacher's educational programs that supported self-efficacy development in teaching (in forms of instruction, student engagement, classroom management). However, the programs didn't focus much on the efficacy to overcome social emotional challenges during professional experiences (Lemon & Garvis, 2017; Tschannen-Moran & Woolfolk Hoy, 2011; as cited in Mansfield et al., 2020).

Previous research has studied a teacher at an urban, very low socio-economic primary school where they perceived getting a promotion resulted in an upgraded professional life. Since then, the teacher experienced an increased self-efficacy and confidence in their profession. The research mentioned how career advancement and increased self-efficacy triggered positive adaptations on professional development. Other scenario mentioned teacher's motivation to teach increased their self-efficacy (Gu & Day, 2007). Similarly, teacher's self-efficacy influenced their persistence and resilience when things were not going as expected (Gibson & Dembo, 1984; as cited in Gu & Day, 2007). Self-efficacy influenced teacher's acceptance in responding to changes, also a characteristic of mindfulness and acting with full awareness (Schussler et al., 2018).

Based on Social Cognitive theory, self-efficacy was an essential factor in building an ability to perform certain behavior. In this study, the research will focus on a hybrid school during the COVID-19 pandemic setting, thus the self-efficacy aspect revolves around computer self-efficacy or the usage of technology during the hybrid learning. Computer Self-Efficacy is described as someone's belief in their own ability in using computer in diverse situations. Conversely, Computer Self-Efficacy has a strong positive effect on Perceived Ease of Use of web-based learning system (Gong et al., 2004; as cited in Punnoose, 2012). Previous technology acceptance researches mentioned the role of Computer Self-Efficacy in understanding someone's response in using technology (Agarwal et al., 2000; Igbaria & Iivari, 1995; Johnson & Marakas, 2000; as cited in Punnoose, 2012). The low level of someone's computer self-efficacy triggered frustrations when facing challenges in using computer. The frustrations lowered their belief on their own capability. Conversely, those who with higher Computer Self-Efficacy would not

easily give up when encountering problems. They would be more persistent in overcoming the obstacles (Compeau & Higgins, 1995; as cited in Punnoose, 2012).

In short, computer self-efficacy was closely related to resilience. In this context, it was related to teacher's motivation to work, confidence, and positive influences on their work and professional development. When teachers develop their Computer Self-Efficacy, they are developing their resilient qualities as well.

2.1.10 Learning Loss

Previous literature mentioned Learning Loss closely associated with student's cognitive learning. There was an established learning loss scale to measure cognitive learning in communication education and performance. The measurement consisted of two questions: how much the students learn in class and how much the students could have learned with an ideal teacher (Richmond et al., 1987; as cited in Hooker & Denker, 2014). Cognitive learning was referred to the recognition of problem-solving skills and higher order thinking processes. The objectives were to recall the knowledge and intellectual abilities (Bloom, 1956; as cited in Hooker & Denker, 2014). Previous assessment studies solemnly focused on the students self-report abilities (Frisby & Martin, 2010; as cited in Hooker & Denker, 2014) while others used pre-test and post-test designs (Wilson & Putnam, 1982; as cited in Hooker & Denker, 2014). McCroskey (1977; as cited in Hooker & Denker, 2014) used student's grade point average (GPA) as a standard in measuring student's achievement. However, the research was rejected as it did not reflect on the amount of learnings given in class, only the score of one group (McCroskey & Richmond, 1992; as cited in Hooker & Denker, 2014). The difficulty in establishing valid measurement of cognitive learning made researchers implemented the Learning Loss scale (Richmond et al., 1987; as cited in Hooker & Denker, 2014) which were seen unreliable to measure the behavior and performance based on the student's self-reported learning loss. There were research gaps in the validity of the factor analysis (Rubin, 2009; as cited in Hooker & Denker, 2014) and biased students evaluations on teachers who grade them with higher scores (Synder & Clair, 1976; as cited in Hooker & Denker, 2014). Because

18

of the uncertainties, biased, and unreliable measurement from the students' self-reports, this study will see from the teacher's perception in determining their students' learning loss.

2.2 Previous Research

This sub-chapter describes various previous research in various contexts, to see how the previous research was carried out to and what methods were used to analyze the research findings.

Table 1 Previous Research

No	Authors	Article Title	Variables and Research Methodology	Research Finding
1	Madelaine Eldridge (2013)	Understanding the factors that build teacher resilience	**Research Method:** Qualitative research using theoretical sampling and purposeful sampling through two interviews in three stages. - Stage one: Discussing the three drafts of the interview on three supervision meetings. - Stage two: Piloting the interview schedule on a female teacher with more than 10 years of teaching experience. - Revisiting the research methods. **Variables:** The data were grouped into 14 themes, which are: - Positive aspects of the workplace - Definitions of teacher resilience - Definition of burnout - Strategies to recover from burnout - Resilience has changed - Resilience has stayed the same - Changes to staff meetings - Personal beliefs about teaching - Personal strategies to stay positive	- Teachers viewed resilience as (1) Challenging situations, (2) Challenging relationships, and (3) Administration's responsibilities. - Resilience needs flexibility in their thoughts - A combination of 9 feelings experiences (including love for teaching, not feeling isolated, not feeling stressed, feeling confident, appreciated, positivity, enjoyment, strong, and need to improve). - Several important elements include personal actions, supportive school culture, faith, and stress level.

	- Helpful processes to promote thriving
	- Support from other people
	- Strategies to cope with challenges
	- Supportive school team
	Research Subjects: Teachers with 10 or more years of teaching experience. Phase one has a total 25 male and female teachers working in primary and secondary settings. Phase two has 5 female teachers with more than 10 years of studying.

(Source: Author, 2022)

On this previous study, the research aimed to seek factors of teacher resilience from two views: teachers with 10 years of experience and teachers with more than 10 years of experience. There were different views and factors between them. The first group of teachers perceived teachers' resilience in a challenging situation, relationship, and administrations responsibilities context. However, senior teachers saw them in a professional context with no consistent pattern. Next, the first group mentioned resilience needed flexibility in their mindset through phases of realistic role expectation, depersonalizing stressful situations, focusing on the positive side, and reflective practice. In addition, the first group of teachers mentioned teacher resilience as a combination of 9 feelings (love for teaching, not feeling isolated, not feeling stressed, feeling confident, appreciated, positivity, enjoyment, strong, and need to improve). Resilience was mentioned as an iterative process and a personal capability (including work life balance, sense of humor, and being adaptable). On the other hand, the senior teachers mentioned that the variety of stress level impacted their resilience and faith (Eldridge, 2013).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
2	Cecily Knight (2007)	A resilience framework: perspective for educators	**Research Method:** Literature review on resilience in education by analyzing the changing situations that impact educators. It was also as an overview on Australian programs that promote resilience.	- The construct of resilience and implication in Australian Education curriculum - The three-dimensional framework for resilience as a state (emotional competence, social competence, and future oriented), as a condition, and as a practice.

<p align="center">(Source: Author, 2022)</p>

On this previous study, the research analyzed different perspectives in defining resilience. The study aimed to construct a framework of resilience for educators, as there has not been a common consensus on defining resilience itself. The topic resilience emerged in the 1970s when studies began to research how young people seem to be immune to negative life experiences. Thus, the research mentioned the three-dimensional framework for resilience and analyzed them as a state, a condition, and as a practice. The research mentioned three states that formed resilience, were emotional competence, social competence, and future oriented (Knight, 2007).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
3	Qing Gu & Christopher Day (2007)	Teacher resilience: A necessary condition for effectiveness	**Research Method:** Empirical data review on a VITAE research "Variations in Teacher's Work, Lives and Effectivenes" four-year large scale mixed-method research project. **Research Subjects:** 300 teachers in 100 primary and secondary schools.	- Positive emotions effect on psychological resilience, and good teaching was a result of positive emotions - Resilience was not a quality that came naturally but was a collective developmental of positive adaptations on challenging situations

| | | | | - | Analyzed 3 teachers scenarios ranging from the least complex to the most complex based on their identity's dimensions (personal, situated, and professional factors). |

(Source: Author, 2022)

On this previous study, the research analyzed three types of resilient teachers from the result of VITAE "Variations in Teachers' Work, Lives and Effectiveness" research. The mixed methods research project involved 300 teachers in 100 primary and secondary schools in the span of four years. The study aimed to analyze the roles of resilience in teacher's effectiveness. The research outlined the lack of study in teacher's resilience, especially in analyzing the impact of environmental and life factors on teacher's effectiveness. From a total of 300 teachers, the research found 3 scenarios ranging from the least complex (scenario 1) to the most complex (scenario 3), based on their capacity to be resilience and influenced by their identity's dimensions (personal, situated, and professional factors). The more complex scenario the teacher faced, the more amount of energy needed to manage themselves, then the harder it was to build their resilience (Gu & Day, 2007).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
4	Bruce Johnson, Barry Down, Rosie Le Cornu, Judy Peters, Anna Sullivan, Jane Pearce & Janet Hunter (2014)	Promoting early career teacher resilience: a framework for understanding and acting	**Research Method:** Face to face interviews and used mind map and line drawing as a tool to summarize the issues discussed. The qualitative data is transcripted using Nvivo 8 to sort and retrieve the comments. **Variables:** - Supports & constraints - Experiences - Health & Wellbeing - Learning about - Relationships	- Framework of conditions supporting early-career teacher's resilience, which has been reviewed and modified with the help of 9 schools in Western Australia and South Australia. The framework has 5 major themes which are:

22

				- Policies and practices
		- Feelings		- Teachers' work
		- Becoming a teacher		- School culture
		- Context		- Relationships
		- Background		- Teacher identity
		Research Subjects: 60 teachers in their first-year teaching in Western Australia and South Australia as well as members of leadership teams.		The framework was expanded with additional resources on 18 positive conditions.

<div align="center">(Source: Author, 2022)</div>

On this previous study, the research analyzed the problems that teachers experienced in their early-career or on their first year of teaching. Some of the problems talked about the success criteria in teaching accomplishment when the social construction has limited action on managing teacher's professional development. The study aimed to understand the importance of personal, professional, and situated factors that affected capabilities in maintaining both emotional wellbeing and professional commitment and thus, promote resilience to support them. The research method used face-to-face interview with mind map tool and line-drawing to facilitate the discussion based on several variables (internal and external factors). Based on the data, the research proposed a framework of conditions supporting early-career teacher's resilience that talked about 5 major themes (policies and practices, teachers' work, school culture, relationships, and teacher identity) on 18 positive conditions along with additional resources (Johnson et al., 2014).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
5	Deborah Schussler, Joshua Brown, Anthony A. DeMauro, Mark T Greenberg (2018)	Stress and Release: Case Studies of Teacher Resilience Following a Mindfulness-Based Intervention	**Research Method:** Qualitative collective case study of full interview transcripts using Nvivo 10. **Variables:** - Teacher' classroom management and instructional skills - Intervening variable: CARE Program that included emotion skills instruction,	- The results were divided into two major categories which were teacher's source of stress and mechanism of change. - The teacher's source of stress included indicators namely students, curriculum, administration, other school stressors,

mindful awareness practices, as well as caring and compassion practices - Teacher improvement - Classroom improvement - Student improvement **Research Subjects:** 21 K-12 teachers with stress experience.	outside of school, managing stress outside CARE program, and sources of support. - The mechanism of changes included indicators: practice, distress tolerance, mindfulness, internalizing physical symptoms, hurry time pressure, efficacy, compassion/empathy, self-care, and community collegiality. - Acceptance indicators were characterized by mindfulness as an acting of awareness and nonreactivity was associated with greater self-efficacy.

(Source: Author, 2022)

On this previous study, the research analyzed factors that contributed to teacher's resilience in the context of stress and release used a mindfulness-based program called CALM. Previous studies have mentioned MBSR programs in helping teachers to understand potential protective factors in building their resilience. The research mentioned when using SMART, the respondents experienced increased working memory and awareness of physical sensations and surroundings. In addition, they also experienced decrease daily physical symptoms, like headaches and stomachaches. The chosen MBSR program named CARE was inspired from previous study that compares urban and suburban teachers. The research then classified a total of 21 participants into 3 typical cases based on their CARE program outcome (least positive, moderately positive, and most positive) through the CARE program. The results were divided into two major categories: the teachers' source of stress and mechanism of change (Schussler et al., 2018).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
6	Ralf Schwarzer & Suhair Hallum (2008)	Perceived Teacher Self-Efficacy as a Predictor of Job Stress and Burnout: Mediation Analyses	**Research Method:** Quantitative research through questionnaire. **Variables:** - Self-Efficacy - Job Stress - Burnout **Research Subjects:** 608 Syrian teachers (93 men and 515 women) and 595 German teachers part of "Self-efficacious Schools" innovation project at 10 schools in 10 states (218 men and 377 women).	- Younger teachers felt less successful and display lack of accomplishment. - High level of self-efficacy teachers suffered less burnout - Emotional exhaustion of job stress contributed highly significant in mediating self-efficacy and burnout for German teachers. - Teachers with low general self-efficacy were more vulnerable upon changing events and prone to job stress and burnout.

(Source: Author, 2022)

On this previous study, the research analyzed the problem why only some teachers could meet the expectations given. The research aimed to analyze the relationship between self-efficacy to job stress and burnout rate. Thus, the research found that teachers with low self-efficacy have low self-esteem. The low self-esteem promoted pessimistic thoughts on their own accomplishment and influenced their motivation, compared to teachers with high self-efficacy that actively challenged themselves on diverse situations (Schwarzer & Hallum, 2008).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
7	Ruben Trigueros, Remedios Lopez-Liria, Jose Manuel Aquilar-Parra, Patricia	The Influence of Transformational Teacher Leadership on Academic Motivation and Resilience, Burnout and	**Research Method:** Quantitative research through questionnaire. **Variables:** - Teacher's Leadership - Self-Determination Index - Academic Resilience - Burnout	- Teacher's leadership had significantly positive predictive effect on motivation and academic resilience on their students.

| | Rocamore-Perez (2020) | Academic Performance | - Academic Performance **Research Subjects:** 3354 university students (1653 men and 1701 women) enrolled in education, psychology, sciences, humanities, education major at universities in Granada and Almeria in Spain. | - Teachers were transformational leader for their students to develop bigger capacity in adapting to demanding academic situation with greater interest in class.
 - Academic motivation had significantly negative effect on burnout
 - Academic motivation had significantly positive effect on academic performance |

(Source: Author, 2022)

On this previous study, the research analyzed the influence of teacher's leadership skills on academic resilience, motivation, burnout, and academic performance, from the perspective of university students. The research outlined the main reason of university students' failure rate is due to demanding academic situations and the absence of coping strategies. Thus the research used Transformational Leadership Theory to understand how classroom leadership could help improve university student's ability in adapting to demanding academic situations (Trigueros et al., 2020).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
8	Shana K. Carpenter, Amber E. Witherby & Sarah K. Tauber (2020)	On Students' (Mis)Judgment of Learning and Teaching Effectiveness	**Research Method:** Literature review on students' illusions of learning that affected their evaluation on their teachers.	- Students were prone to misjudge their teacher's effectiveness in teaching due to biased factors unrelated to the teaching itself. - Common misleading factors were low class participation, faulty memory, teacher's gender, teacher's

| | background, teacher's appearance, mercy in grading and the most powerful is teacher's enthusiasm. |

(Source: Author, 2022)

On this previous study, the research analyzed the phenomenon of overconfidence within students on their learning achievement. The phenomenon compared the student's expectation and their learning outcomes. Just as student's were prone to underestimate their learning capabilities, they were also prone to misjudge their teacher's effectiveness. There was a deep reliance on the student's evaluation in determining the teacher's quality and professional development. The research claimed that students were affected by several biased factors unrelated to the teaching method. In other words, there were no correelation between the student's perceived in teaching effectiveness with their learning and development skills. To illustrate, the students believed low class participation in an enthusiastic session was the best learning method -which was misleading, as proven on a demonstration of 'Dr.Fox' played by a fraud actor at a teacher training conference. In result, the required knowledge and skills remain undeveloped. The most powerful evidence of effective teaching was a durable long-lasting learning, when there was a positive relationship between the teacher's measurable effectiveness with their student's performance in a follow-up classes relevant to their studies. Thus, the research suggested several adjustments on students' evaluations of teaching, such as eliminating indicators of students' assessment their teacher's scope of capabilities and minimizing numeric rating. The research also mentioned the need to encourage students to complete the evaluations multiple times during one term. It was also worth to consider that student's memory was another source of bias, especially when remembering their experience in class (Carpenter et al., 2020).

No	Authors	Article Title	Variables and Research Methodology	Research Finding
9	Caroline F. Mansfield, Susan Beltman & Noelene L. Weatherby-Fell (2020)	"I Actually Felt More Confident": An Online Resource for Enhancing Pre-service Teacher Resilience During Professional Experience	**Research Method:** Exploratory study through interviews. **Variables:** - BriTE online modules (Building resilience, relationships, wellbeing, taking initiatives, emotions) - Reminding and reinforcing - Increasing self-awareness - Reflecting and thinking - Learning new strategies - Building confidence - Applying strategies on professional experience - Applying strategies in the future **Research Subjects:** 13 Australian pre-service teachers enrolled in a Graduate Diploma of initial teacher education course at the university and has completed the BriTE modules to their final 5-week school based Professional Experience.	- 10 teachers felt that BriTE modules increased their self-awareness of resilience skills and strategies. - 10 teachers described BriTE modules encouraged them to reflect. - 9 teachers mentioned how BriTE encouraged them to learn additional resilience-related skills. - 6 teachers stated that BriTE modules has helped them to be more confident. - 12 teachers said that they have used the ideas that BriTE recommended on their professional experience. - 10 teachers said that they will use the learning methods covered by BriTE in the future.

(Source: Author, 2022)

On this previous study, the research analyzed how resilience help newly graduated teachers on their professional development, especially in an online learning setting. It was a common phenomenon where newly graduated teachers found difficulties in adapting to their profession. It was important to provide enough opportunities to develop their confidence in coping challenges as well as building resilience. In this stage, self-efficacy was a crucial factor. The research mentioned less mastery experiences between the respondents and thus, there were several teacher educations programs that supported the development. One of the teacher education program modules named BriTE module, focused on 5 modules: B –

28

An Analysis of Factors Influencing Teachers' Resilience to Teaching Effectiveness: An Empirical Study of Hybrid Learning During COVID-19 Pandemic, Vania Hefira, Universitas Multimedia Nusantara

Building resilience; R – Relationships; i – Wellbeing; T – Taking initiative; and E – Emotions. Based on the interview, the module BriTE indicated significant positive predictive effect on newly-graduated teachers on their professional experiences (Mansfield et al., 2020).

2.3 Conceptual Framework

In this study, a conceptual framework was constructed to identify and examine the factors influencing teachers' resilience on teaching effectiveness. In the previous researches, the conceptual framework consisted of Emotional Competence, Social Competence, Future Oriented, Self-Efficacy. There was also an alternative association with Teachers' Vocation, Professional Goals and Purposes, Persistence, Professional Aspirations, Achievement and Motivation.

However, in this study, the independent variables are the Emotional Competence, Social Competence, and Future Oriented towards Teachers' Resilience and Teaching Effectiveness. Teachers' Resilience is an independent variable towards Teaching Effectiveness. Teaching Effectiveness becomes an independent variable towards Perceived Learning Loss. The moderating variable is Computer Self-Efficacy. The dependent variable is Perceived Learning Loss.
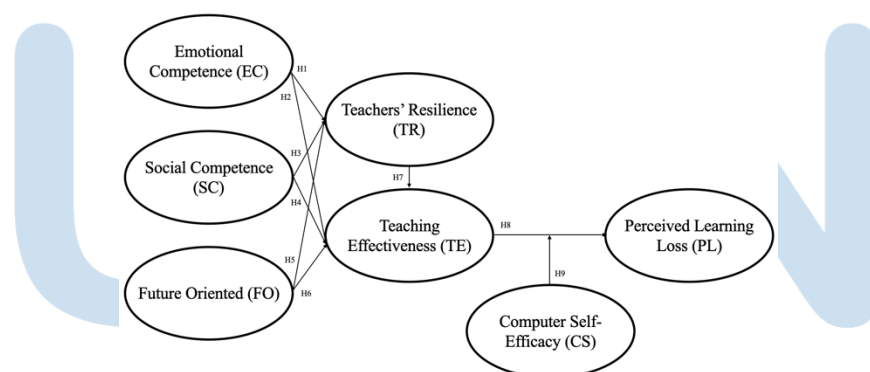

Figure 2.2 Conceptual Framework
(Source: Author, 2022)

2.4 Hypothesis Submission

This section provides explanation of the results of exploratory studies conducted in qualitative approach, which will then be tested in quantitative

An Analysis of Factors Influencing Teachers' Resilience to Teaching Effectiveness: An Empirical Study of Hybrid Learning During COVID-19 Pandemic, Vania Hefira, Universitas Multimedia Nusantara

approach. In accordance with the results, the hypotheses were carried out by presenting the structural relationships between the variables.

2.4.1 The Relationship between Emotional Competence to Teachers' Resilience

There has been several research that mentioned developing emotional competence would create resilience. Masten et al. (1995; as cited in Knight, 2007) mentioned children that would succeed in life are the ones who had more internal and external capabilities resources, as they were good problem solvers with higher self-esteem. It was reported that their competence is formed through their upbringing in a variety situation, which made them become more emotionally competent and would likely to bounce back when in a situation that did not go well.

H1: The Emotional Competence has positive effect on Teachers' Resilience.

2.4.2 The Relationship between Emotional Competence to Teaching Effectiveness

There has been several research that mentioned the relationship between emotional competence and developing resilience. Masten et al. (1995; as cited in Knight, 2007) mentioned children that would succeed in life are the ones who had more internal and external capabilities resources, as they were good problem solvers and had high self-esteem. They were reported to be the ones who grew up with positive upbringing and demonstrated good emotional capabilities. In this context, teacher who performed emotional competence state would be able to influence their children's growth as teacher could demonstrate better understanding in emotions. Through their teaching and learning process, students would directly and indirectly be influenced by the empowerment that the teachers projected and thus would develop their ability to cope with demanding uncertainties later in life, which in this study focus on during pandemic setting.

H2: The Emotional Competence has positive effect on Teaching Effectiveness.

2.4.3 The Relationship between Social Competence to Teachers' Resilience

There has been several research that mentioned a stable relationship is a result of important components of social competence. Masten et al. (1995; as cited in Knight, 2007) stated that people who grew up in a supportive relationship would be more resilience when facing different demanding situations. In previous studies, developing resilience in young age prevented abuse, violence, and suicide issues. Because of that, it is important to pay attention to teachers as they are close to children. By being one of the supportive adults, teachers' social competence will affect their students success later in life (Fuller, 2001; Benard, 1991; Doll and Lyon, 1998; as cited in Knight, 2007).

H3: The Social Competence has positive effect on Teachers' Resilience.

2.4.4 The Relationship between Social Competence to Teaching Effectiveness

Previous studies have mentioned the relationship between social competence and teacher resilience where people who grow up in a stable relationship with supportive environment would likely to be more resilience in facing uncertainties in life later. In this context, teacher who performed social competence state can influence their children's growth. Teachers could build a safe and healthy relationship for their students. Through their teaching and learning process, students will directly and indirectly be influenced by the empowerment that the teachers project and thus would develop their ability to cope with demanding uncertainties later in life (Masten et al., 1995; Fuller, 2001; Benard, 1991; Doll and Lyon, 1998; as cited in Knight, 2007).

H4: The Social Competence has positive effect on Teaching Effectiveness.

2.4.5 The Relationship between Future Oriented to Teachers' Resilience

There have been several previous studies that indicated the effect of future-oriented belief in developing resilience, where people with a sense of optimism, ability in solving problems and doing reflection, as well as ability to be flexible in changing situations have better resilience. Other research mentioned that a sense of optimism about their future becomes a protective factor in thriving in life, as there

is a relationship between optimism and better adjustment in negative life settings for young people (Brissette et al., 2002; Werner and Smith, 1992; Seligman, 1995, 2002; as cited in Knight, 2007). Teachers who have future-oriented belief could influence their students to develop their flexibility and adaptive problem-solving skills. This sense of empowerment is needed for children in development age so that they could cope with demanding uncertainties later in life.

H5: The Future Oriented has positive effect on Teachers' Resilience.

2.4.6   The Relationship between Future Oriented to Teaching Effectiveness

Previous studies have stated being future-oriented developed someone's resilience. In this context, teachers with future-oriented belief could influence their students to develop their flexibility and adaptive problem-solving skills. Through their teaching and learning process, students will directly and indirectly be influenced by the empowerment that the teachers project and thus would develop their ability to cope with demanding uncertainties later in life.

H6: The Future Oriented has positive effect on Teaching Effectiveness.

2.4.7   The Relationship between Teacher Resilience to Teaching Effectiveness

Previous studies have mentioned the relationship between teacher resilience in teaching effectiveness. In this context, teacher who has developed their personal capabilities and resources around them in any given setting and could analyze both the relationship of the people and system around them, has performed characteristics of resilience (Edwards 2010; as cited in Eldridge, 2013). Their emotional experiences in daily basis affected their effective teaching and learning overall. It would directly and indirectly impact to their student's attitudes and responses as students look up to them as role models in responding under challenging situations. Therefore, as teachers' resilience support their students' resilience (O'Hanlon, 2000; Montgomery & Rupp, 2005; Fox-Wilson, 2004; Black-Hawkins, Florian & Rouse, 2007; Montgomery & Rupp, 2005; Gu & Day, 2007; as cited in Eldridge, 2013), it should consider including the analysis of the

relationship between teacher resilience to their teaching effectiveness in order to understand the influence to the teaching practice.

H7: The Teachers' Resilience has positive effect on Teaching Effectiveness.

2.4.8 The Relationship between Teaching Effectiveness to Perceived Learning Loss

There have been several findings that mentioned an effective teaching resulted in better student learning (Boring et al., 2016). The increased awareness, emotional regulations as well as perceived responsibilities has been mentioned could improve teacher's effectiveness in delivering their materials to the students (Schussler et al., 2016; as cited in Schussler et al., 2018). Teaching effectiveness could solve problems in promoting learning recovery and minimize the effect of learning loss.

H8: The Teaching Effectiveness has negative effect on Perceived Learning Loss.

2.4.9 The Relationship between Computer Self-Efficacy in Moderating Teaching Effectiveness to Perceived Learning Loss

There have been previous studies that mentioned self-efficacy closely related to developing resilience when encountering demanding situations. There were several education programs that emphasized on supporting the development of self-efficacy. In this research, the self-efficacy focuses on facing hybrid learning school demands, where teachers are required to have acceleration in technology innovation knowledge. Thus, the study will focus on understanding how self-efficacy in using computers could help teachers in delivering an effective teaching and in minimizing the effect of learning loss.

H9: The Computer Self-Efficacy has a moderating effect in the relationship between Teaching Effectiveness to Perceived Learning.