



# Stress Management in the Education Sector

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MASTER'S THESIS December 2022

Master of Business Administration Educational Leadership

#### **ABSTRACT**

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
Master of Business Administration
Educational Leadership

HANULA-BOBBITT, KATARZYNA & BOČKUTĖ, KRISTINA: Stress Management in the Education Sector

Master's thesis 62 pages, appendices 13 pages December 2022

Occupational stress negatively affects not only the employee but also the organization by imposing additional costs on the organization, such as employee turnover and absenteeism, reduced work efficiency, increased risk of accidents, and lack of innovation.

Intending to identify and study the measures of stress management at educational institutions by analysing the data from surveying the students and graduates attending the TAMK Master of Educational Leadership program (MEL), this thesis examines stress management in the educational sector, focusing on the causes of stress and factors that can contribute to successful stress management. It is argued that stress has a significant impact on the educational sector, for students, educators, administrators, and other stakeholders.

The research identifies stressors that can cause stress in the educational sector, such as workload, assessment, competition, and technology. It also examines the role of educational institutions in managing stress and the importance of creating a supportive environment for students and staff. Strategies to manage stress in the educational sector are identified, such as self-leadership, work-life balance, communication, mindfulness, and physical activity. Finally, this thesis concludes by emphasising the need for further research into stress management in the educational sector, and the importance of creating an environment that is conducive to learning, growth, and development.

Key words: stress, stress management, educational leadership, self-leadership, coaching

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# **ABBREVIATIONS AND TERMS**

TAMK Tampere University of Applied Sciences

MEL Master of Educational Leadership program

EU European Union

UK United Kingdom

GAS General adaptation syndrome

DCS Demand-Control model

ISR Institute for Social Research

#### 1 INTRODUCTION

It is estimated that a person spends an average of 100,000 hours at work in their lifetime, therefore employers have a great responsibility to create a work environment that does not cause great stress to employees (Bamber, 2006). At the same time, managers should ensure optimal stress levels because the absence of stress results in lower work efficiency (Cranwell-Ward, Abbey, 2005).

Research on work-related stress became relevant in the late twentieth century and is receiving increasing attention for a number of reasons. In recent decades, there has been an increasing focus on the quality of working life as an integral part of the quality of life (Schabrac, Cooper, 2000). Work fulfills a several functions in person's life, i.e. economical, social, prestige, and psychological, and determines his / her quality of life (Pignault & Houssemand, 2021).

The research shows that two-thirds of European employees experience excessive occupational stress and high work pressure (Start, 2021), which significantly increased during the Covid-19 pandemic and afterward. Several studies concluded that work is largely affected by employees' health and in the opposite, employees' health is affected by working conditions (Garfield & Antonisse, 2018; Näswall et al., 2014; Ronchetti et al., 2021), for example, in Italy the most reported work-related health problems were back pain (51.6 %) and shoulder, neck, and upper limb pain (46.7%), together with general fatigue (43.4%), headache (42.2 %), muscle pain (29.3%), insomnia (25.2 %), depression, and other symptoms (Ronchetti et al., 2021). The negative health outcomes that affect both physiological and psychological aspects of employees' health usually originate from working conditions and largely from long-term exposure to work-related stress. Stress is becoming a global problem and affects all countries - both developed and developing, all occupations and all categories of workers - both workers and administrators, making stress and stress management tools important in research and organizational management practices (Kang, Singh, 2004). Educator profession is among the profession that experiences the highest levels of stress each day (Cranwell-Ward & Abbey, 2005). The research performed in the UK demonstrated that 78 % of all educators encounter either behavioral, psychological, or physical symptoms related to their occupation. In addition, over 1/3 of education professionals suffered from a mental health issue in the previous academic year and 74 % of education professionals consider the inability to switch off and relax to be the major contributing factor to a negative work-life balance (Education Support, 2019).

Additionally to the physical and psychological effects on employees' health, stress at work imposes considerable costs on the organization, such as employee turnover and absenteeism, reduced work efficiency, increased risk of accidents, and lack of innovation (Matteson, Ivancevich, 1989; Cox, Griffith, Rial-Gonzalez, 2002; Clarke, Cooper, 2004, Cranwell-Ward, Abbey, 2005. As a result of gross domestic product (GDP), absenteeism due to stress at work amounts to up to 3% in most EU countries (European Agency for Safety and Health at Work, 2014). In the US industry, absenteeism due to work-related stress costs 84 billion annually (van Vulpen, 2021). Stress at work not only causes health problems and absenteeism and employee turnover, but also employee efficiency (Rossi, Perrewe, & Sauter, 2006). Researchers have calculated those workers affected by stress at work but still working are seven times less likely than workers who are not affected by stress. This leads to the conclusion that the costs of absenteeism represent only a very small part of the costs of stress at work (Main, Glozier, & Wright, 2005).

The issue of workplace health promotion strategies is increasingly being raised in the European Union starting from policy frameworks to health-promoting universities (Tsouros & World Health Organization. Regional Office for Europe, 1998). Health2020 (Who Regional Office for Europe & World Health Organization. Regional Office for Europe, 2013), Health 2021 (World Health Organization, 1999) set new policy frameworks that would allow to form of a common preventive policy for all member states and to regulate the measures of stress management at work at the level of the European Union, however, health promotion at a workplace still continue to be a concern within the EU. Even with extensive legislation to promote and foster a culture of preventive health and safety at work, these requirements are not sufficiently met. There is little investment in improving the

health of employees in organisations and little consideration of other psychosocial risk factors (Verra et al., 2019).

In summary, stress and its reduction possibilities are a multidisciplinary concept that is relevant in many fields of science. Work has become important and significant in human life. Emphasis is placed on the quality of working life as an integral part of the quality of life. Experiencing stress for a short time, even mobilizes, helping a person to work more productively. But constant tension is stressful. Prolonged employee stress can lead to many health problems, such as fatigue, anxiety, sleep disturbances, and increased nervous tension, which reduces work efficiency, affects employee turnover, absenteeism, and a lack of innovation, increasing organizational costs.

The problems of stress management at work are studied in different fields of science - medicine, psychology, sociology, and management. Although stress has been of interest since ancient times (Cenbe, 1982), the concept of stress was finally formulated by H. Selje in the 1960s (Myers, 2000). In Europe, stress at work is one of the biggest safety and health problems we face. Changes in society pose new challenges for the educational institution as an organization and for the professional activities of the educator. It is noticeable that a lot of research has been done revealing the factors causing stress and management possibilities among medical staff, officials, educators, and the causes of stress at work and their overcoming in higher education are under-researched areas.

The **research problem** that will be investigated in this thesis project is the following: What stress management measures can be used to reduce stress in higher education?

The **aim of the work** is to identify and study the measures of stress management at educational institutions by analyzing the data from surveying the students and graduates attending the TAMK Master of Educational Leadership program (MEL).

MEL is a unique, mid-career program for aspiring leaders in education. The program is designed to prepare educational leaders for the challenges of the 21st century. It is a tailored program for a group of 20-30 participants. The program

emphasizes the importance of collaboration, communication, and community involvement in the educational process. The program also prepares educational leaders to be effective advocates for educational equity and excellence. Its focus is on management and leadership skills in the context of education. A lot of focus is being placed on the self-leadership of participants, which is understood as a "comprehensive self-influence perspective that concerns leading oneself toward the performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating" (Manz, 1986). The program is a blended format with most of the classes being held online.

The researchers in this thesis will examine if there are any common indicators that get us insight into the way that the MEL students are seeing their work. We will also see if from some exciting models of stress management we could propose a model of stress management that would be especially applicable among MEL students.

We will also look at the aspects of how the use of technology is affecting the students and their stress levels as the MEL program is conducted in a blended format with the significant deployment of tech tools such as emails, tech platforms, and instant messengers.

#### The **objectives of this work** are:

- to identify the factors that cause stress among MEL students;
- based on the results of the research, and provide recommendations for TAMK to manage the stress of the MEL participants.

The students pursuing a Master of Educational Leadership at TAMK and their stress management measures were the **object of the research**. Stress management here will be defined as the application of organizational stress management measures to reduce the level of stress at work by eliminating or reducing the effects of stress at work.

#### 2 THEORETICAL ASPECTS OF STRESS MANAGEMENT

#### 2.1 Stress definition

Stress at work has received a great deal of attention from researchers in recent decades, but it can nevertheless be argued that there is still no uniform definition of stress at work. The scientific literature distinguishes between the terms "stress", "eustress", "distress", "hypostress" and "hyperstress".

Eustress is the optimal amount of stress, a positive force that is equated to the excitement caused by new challenges. The consequences of eustress are positive for both the employee and the organization: more creative and faster problem solving, higher engagement to work and punctuality can also increase because the employee is interested in the task (Hargrove et al., 2015). However, even positive stress, if it lasts for a long time, has negative consequences for the employee himself and his work performance (Cranwell-Ward, Abbey, 2005).

Distress is felt when there is too much stress. Such stress negatively affects both the employee and the organization. When the term "stress" is used in colloquial speech, it usually refers to "distress" (Cenbe, 1982).

Hypostress - too little tension and boredom can also be a cause of stress. Forms of such stress are usually suppressed emotions, frustration or apathy, and depression (Cranwell-Ward, Abbey, 2005).

Hyperstress - if the tension becomes excessive, the individual feels hyper-pressed. The moment at which stimulation (eustress) escalates into hyperstress depends on the individual and even the same individual may react differently in different situations. During hyperstress, a person may feel lost in control or panic (Cranwell-Ward, Abbey, 2005).

Robbins and Judge (2007) use the terms "challenge stress" instead of "eustress" and "distress" - the stress that is associated with challenges in the workplace (many project assignments, responsibilities); and "obstacle stress" means stress

that prevents the achievement of goals (due to organizational policies, unclear responsibilities, etc.). According to Dessler (2002), "challenge stress" increases job satisfaction, while "obstacle stress" has a negative effect on job satisfaction and increases employee turnover.

Le Fevre, Matheny, and Kolt (2003, 2006), who have conducted a scientific analysis of stress literature, argue that such a distinction is more semantic. In most models of stress at work, these concepts are not analysed further, but the general concept of stress is limited. Hereinafter, the term "stress" will be used as a synonym for the term "distress", i.e., stress adversely affecting employees.

Merriam-Webster dictionary defines stress as a state of mental tension and worry caused by problems in an individual's life, work, etc., or something that causes strong feelings of worry or anxiety (Merriam-Webster dictionary, n.d.). Table 1 provides the definitions of stress collected in scientific literature.

TABLE 1. Definitions of work-related stress.

Author	Definition of stress				
Selye (1956)	Stress is the nonspecific response of the body to any demand made upon it (Selye, 1976).				
Lazarus (1966)	Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being.				
Cox (1978)	Stress, can only be sensibly defined as a perceptual phenomenon arising from a comparison between the demand on the person and his or her ability to cope. An imbalance in this mechanism, when coping is important, gives rise to the experience of stress, and to the stress response.				
Elliott & Dweck (1988)	Stress may be viewed as the body's response to any real or imagined event perceived as requiring some adaptive response and/or producing strain.				

	Stress is the psychological, physiological, and be-
	havioural response by an individual when they per-
Palmer (1989)	ceive a lack of equilibrium between the demands
Painler (1909)	placed upon them and their ability to meet those de-
	mands, which, over a period of time, leads to ill
	health.
	Stress can be any factor, acting internally or exter-
	nally that makes it difficult to adapt and that induces
Humphrey (1992)	increased effort on the part of the person to maintain
	a state of equilibrium both internally and with the ex-
	ternal environment.
	Stress is the process of coping with life's pressures
Thompson et al. (1994)	and problems and the negative feelings this can
	generate.
	Stress is a highly personalized phenomenon that
Fink (2016)	varies between people depending on individual vul-
1 IIIK (2010)	nerability and resilience and between different types
	of tasks.
	Stress is the response people may have when pre-
World Health Organi-	sented with demands and pressures that are not
zation (2020)	matched to their knowledge and abilities and which
	challenge their ability to cope.

Table 1 shows that scientists define stress both as an independent variable, a stimulus, a force acting on and causing discomfort to a person, and as a dependent variable, the response to negative external factors, and as a process. Such conceptual confusion is compounded by the widespread use of the concept of stress in biomedical, psychological, and management research, where each science analyses stress from its own perspective.

The mentioned stress definitions can describe the underlying concepts of stress research.

The physiological concept of stress focuses on the effects of stress without delving into the nature of stress. Here, stress is treated as a dependent variable, i.e.,

as a kind of physiological response to a negative and harmful environment. Such a response-based concept is found in medical science, where stress is evaluated from a physiological perspective because the most important thing for this science is to diagnose and treat symptoms and it is not necessary to explain and eliminate their causes. The first investigators of response-based stress were W. Cannon, who introduced a concept of homeostasis and developed a fight-or-flight response to stressors (McCarty, 2016), and H. Selye, who being a founder of stress theory, investigated various physiological reactions to stressors and developed a concept of general adaptation syndrome (GAS) (Selye, 1951). GAS occurs in three phases as (i) general alarm reaction that is characterized by the changes in human regulatory processes that would allow accumulating the energy needed to accept and resist stressors, (ii) stage of resistance that is opposite to the general alarm reaction and mobilizes hormonal processes that increase the tolerance to change allowing to cope with and have the resilience to stress, and (iii) stage of exhaustion that is present in the form of a failure of adaptive mechanisms if the effects of stress are not eliminated (Selye, 1951; Tonhajzerova & Mestanik, 2017). Selve defined stress as the body's response to external factors.

The rapid development of industrialization has led to the development of the engineering concept of stress. Most early research has sought to identify sources of stress in the work environment in order to create optimal working conditions. This concept could be compared with the definitions in physics and engineering, in the sense that stress is seen as an external force acting on the body that can cause adverse effects. The main representatives of this concept, Holmes and Rahe, did not address stress reactions, but the stressors themselves. They performed a stressor analysis and tried to identify universal evaluation criteria that could be used to classify all human stress. Their developed stress scale which measures human exposure to stress is widely used as a self-assessment tool for measuring the total stress that an individual is under (Blackwood & Knight, 2007). In this concept, stress at work is an independent variable - an environmental factor causing health problems.

Rapid industrialization introduced another type of stress called technostress. Technostress was first mentioned by Brod (1984) and referred to a person's incapacity to cope with information and communication technology that leads to an increase in distress.

The previously mentioned concepts define stress based on a simple stimulusresponse paradigm. This reflects only the component of the stress process, but says little about the process itself and does not take into account individual differences in psychological nature. Yet, the consequences of stress and the mentioned stressors may be dominant for a majority of employees at their workplaces.

Despite this limitation, the contribution of physiological and engineering concepts to the identification of the consequences of stress and the sources of stress that may affect most workers is assessed.

The interactional model of stress defines stress based on the interaction between stimulus and response, between individuals and their environment (Senior & Cropley, 2007). Representatives of this concept evaluate stress as an activity of an individual and his / her work environment. The interaction model of stress is closely interrelated with a transactional model of stress in which the nature of the relationship of stressors - response - consequences is revealed and the concept of stress as a dynamic process is formed. Representatives of this concept focus on the psychological mechanisms of cognitive situation assessment and stress management (Gomes et al., 2017). From this perspective, the concept of "stress" encompasses the whole transactional process rather than its individual elements such as the individual or the environment (Fink, 2016; Humphrey, 1992; Palmer, 1989; Thompson et al., 1994). Lazarus (1990), the creator of this concept, tried to answer the question of why the same stressor has different effects on different people under the same conditions. He named the cognitive assessment of the situation and the process of coping with stress as the main intermediate variables between the body and the environment.

Lazarus (1966, 1990) described stress as a special relationship between the individual and the environment, which is perceived by the individual as exceeding his or her available resources and posing a threat to his or her personal wellbeing and requires an effort to rebalance. Interactional – transactional model of stress is nowadays used for the investigation of stress and its consequences.

The essential difference between the concept of interactional and transactional stress is that, according to the concept of interaction, elements such as the causes (stimulus) and consequences (response) of stress can be independent components linked by causality. In the transactional model, on the other hand, these components become inseparable from the situational context (Todd, n.d.). Here, the definition of stress follows the above-mentioned concepts and is defined as the interaction between an individual and his or her work environment, when the individual perceives the factors of the work environment as threatening to his or her personal well-being and cannot overcome or reduce their negative effects. Such a definition is also related to the stress definition provided by World Health Organization (2020).

#### 2.2 Work-related stress models

Work-related stress models can be divided into situation-oriented and person-centred models. Situation-oriented models focus primarily on factors or events in the organization, while person-centred models seek an explanation of the person being behaved investigating his or her habits, feelings, needs, and cognitions (de Jonge et al., 1999). The most influential work-related stress models that shaped the stress research are given in Picture 1. The upper part of the timeline represents person-centred models while the lower part of the timeline represents situation-oriented models (Mark, 2008; Nakao, 2010; Pezaro, 2018; Stress Models and Theories - IResearchNet, 2016; Todd, n.d.).



PICTURE 1. Timeline of the theoretical models of stress.

One of the earliest general models of work-related stress was developed in the early 1960s by researchers from the Institute for Social Research at the University of Michigan and was based on the theoretical frameworks of French and Kahn (Mark, 2008; Stress Models and Theories - IResearchNet, 2016). The model is known as **ISR or Michigan model** and describes a person's psychological, physical, or behavioural reactions and response to certain conditions of the work environment such as workload, amount of challenge they encounter, job security, etc. The short-term reactions occurring in a prolonged time may lead to the increase of distress that may turn into physical and/or psychological problems. This model also emphasizes the importance of individual characteristics of a person such as personality traits, demographics, as well as social support in the work environment (Mark, 2008; Stress Models and Theories - IResearchNet, 2016). Even though this model has received a lot of criticism regarding its complexity and the difficulty to test and evaluate it, such emphasis on the individual response to stressors is a basis of many other person-centred models of stress.

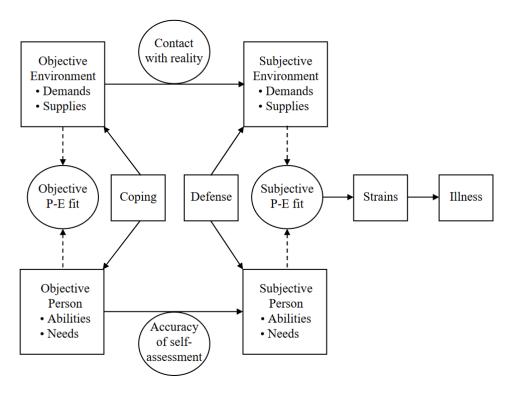
Another theoretical model of stress, the **Person-Environment Fit model**, developed by French (1973) was of great importance in work-related stress research. This model was developed from Lewin's (1951) description of the motivational process and has subsequently been applied in many organisational behaviour models (Edwards et al., 1998).

French observed that a good fit between the individual and the environment explains behaviour better than individual and environmental differences. Based on these observations, he formulated the theory of person-environment fit, where fit is based on two main aspects:

- how the employee's attitudes and abilities match the work requirements;
- how the work environment matches the employee's needs, i.e., to what extent the individual is allowed and encouraged to use his/her knowledge and skills at work.

The person-environment matching model is illustrated in Picture 2, here concepts within circles are discrepancies between the two adjoining concepts, solid lines indicate causal effects, and broken lines indicate contributions to person-environment comparisons (Edwards et al., 1998). French argues that stress arises when

there is a mismatch in one or both dimensions. This model firstly makes a clear distinction between objective reality and subjective perception of it, and secondly makes a clear distinction between environmental variables and individual variables. In this model, environmental stressors are not universal stressors. Rather, the level of stress depends on the individual's perception, i.e., how the individual perceives the demands placed on him/her by the work environment and how he/she perceives his/her ability and motivation to meet these demands.



PICTURE 2. A model of stress as person-environment fit (Edwards et al., 1998).

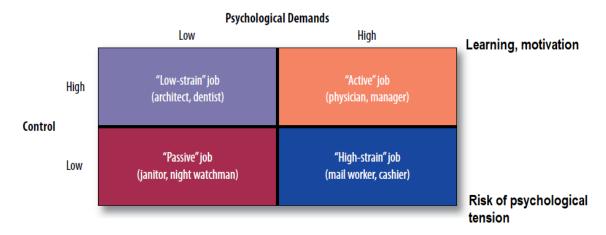
The theory of person-environment fit identifies three main relationships between stressors and stress. In terms of demands-abilities matching, stress levels arise when demands exceed abilities. When the demands are lower than the employee's abilities, stress may decrease or increase. This depends on whether the demands of the environment decrease to a level that leads to boredom and prevents the individual from using his or her abilities to achieve higher levels of need satisfaction. In terms of the needs-supplies relationship, the stress level will be low when the demands of the environment exceed the needs of the individual. Conversely, stress will be higher when the individual's needs are not being met either because the needs are increasing or because the environment's ability to meet the individual's needs is decreasing.

The person-environment fit model states that the individual can respond to mismatches in two ways (Edwards et al., 1998):

- try to reduce the mismatch, i.e., change the environment or change oneself (e.g., training to improve skills or negotiation to change the environment);
- use self-protective reactions, which include the following classical mechanisms such as suppression (ignoring demands), projection (seeing others' weaknesses instead of one's own), etc.

Recent research has differentiated and extended the model by analysing personjob fit, person-organization fit, person-group fit, and person-supervisor fit (Oh et al., 2013). The research based on this model and its findings extensively show that stress may affect individuals differently depending on their personality traits, abilities, and beliefs.

Karasek (1979), an American researcher, included two factors in his model of work-related stress – the **Demand-Control model** (Picture 3). The job demands scale should measure job demands, unexpected tasks, and interpersonal conflicts, and may also include factors such as fear of job loss or career problems. Karasek (1979) also recognised that other factors should be included in the future. Control at work (otherwise known as decision latitude) is defined as the ability of employees to make their own decisions about how work is to be done and to use their knowledge.



PICTURE 3. Demand Control model. Adapted from (Conte & Landy, 2019; Karasek, 1979).

In the model Karasek (1979) makes two assumptions:

- firstly, psychological strain increases with increasing job demands and decreasing job control, i.e., when the possibility of making independent decisions and using one's own knowledge decreases,
- secondly, the competence of the employee increases if the job demands increase in proportion to the level of control given.

Picture 3 shows that a situation with low job demands and low levels of job control can be attractive to an employee if it is judged only by the level of tension - the tension in such a situation is low, but the employee does not have the opportunity to improve. Increasing the demands of the job and increasing the control over the working environment can reduce stress at work and lead to a higher level of employee competence.

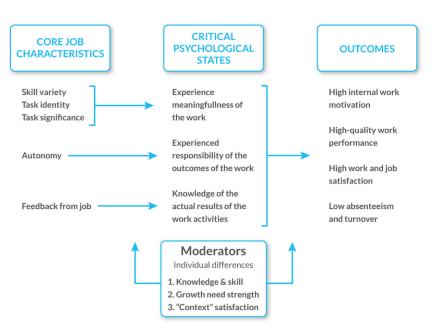
The demand-control model has been criticised for its simplistic view of stressors and for ignoring social support (Mark, 2008), and the model was later extended to include a social support component and the work demand-control-support model was developed (R. Karasek & Theorell, 1990). In the extended model, social support is defined as a flow of communication between individuals, including emotions, care, information sharing, and feedback. Social support acts as a buffer against the negative health effects of excessive psychological demands (Asif et al., 2018; Towler, 2020b).

The complementary model of demands-control-support has also been criticised for not taking into account the individual characteristics of employees, which influence the level of stress experienced by employees (Portoghese et al., 2020). Van Der Doef & Maes (1999) found out that the model is valid for male employees working in high-strain jobs, yet it is less applicable to women at high-strain jobs (Towler, 2020b). In addition, the concept of demand in the model is mostly limited to workload without investigating other stressors (Mark, 2008).

The **Job Characteristics model** developed by Hackman and Oldham (1980) focuses on the job itself and its characteristics by including five components in order to adapt more to employee's needs (Job Characteristics Model - Employee Motivation Training, 2017; Lucas, 2021; Towler, 2020a):

- Skill variety;
- Task identity;
- Task significance;
- Autonomy;
- Feedback.

# JOB CHARACTERISTICS MODEL



PICTURE 4. Job characteristics model (Job Characteristics Model - Employee Motivation Training, 2017).

As is seen in Picture 4, there are certain characteristics of the job as well as the personal inputs that are critical for higher satisfaction and higher performance in the job. The model estimates that working requires a variety of tasks that could employ employees' abilities and talents. In such a way, the job characteristics would result in high internal motivation, high-quality work performance, and job satisfaction. It is presumable that unfavourable aspects of the job environment create physiological circumstances that have corresponding behavioural and mental effects, such as employee absenteeism, poor motivation, and unhappiness (Zacher & Schmitt, 2016).

This model received some criticism as being created in the 1980s it provides the theoretical framework for strictly defined core job characteristics and a low variety of key psychological states, however, it is still a great tool for organization leaders

allowing to analyse and improve the job positions or to create more engaging roles for the employees (Lucas, 2021; Mark, 2008; Towler, 2020a).

The Lazarus transactional model or the cognitive theory of psychological stress and coping developed in 1986 has had a profound impact on the further development of stress theories (Mark, 2008). The transactional stress model proposes to assess stress as a process rather than as a single, bounded event or elements such as an individual or environment (Sivam & Chang, 2016). Lazarus (1990) attempted to answer the question of why different people are affected differently by the same factor under the same conditions. He identified cognitive appraisal of the situation and the process of coping with stress as the main mediating variables between the individual and the environment. Lazarus defines stress as a temporally unfolding relationship between the individual and the environment, where the personal perception of the immediate environment and its interpretation of the immediate environment exceeds a person's available resources, threatening his or her personal well-being and requiring efforts to restore equilibrium, i.e., in the case of stress, it is not so much about the event that caused it as it is about the subjective assessment of the fact itself (Ladegård, 2011; Lazarus, 1990).

Based on the transactional model, an individual evaluates and interprets the work environment based on his/her own value and belief systems. This is referred to as primary (or cognitive) appraisal (Lazarus, 1990). At this stage of the process, the individual decides to what extent the difficulties encountered are likely to affect him or her directly, and assesses the severity of the impact, the reasons for the impact, and the fact of the encounter with the stressful situation itself. Even at the initial assessment stage, differences between individuals may already be apparent, as some will perceive the environment as more negative and demanding than others.

Second, the individual seeks the necessary internal or external resources and assesses their availability in order to cope with stressful circumstances. This is referred to as secondary appraisal. A secondary appraisal is often determined by the extent to which the individual feels he or she has control and influence over

the desired outcome, how assesses his or her effectiveness and capacity, as well as how the individual assesses his or her ability to control their emotions.

Based on the primary and secondary appraisals of stress, the individual chooses a strategy to help him meet the demands placed on him/her. This may include reappraisal, when the individual reassesses the stressful situation or internal activities aimed at making sense of the situation, setting goals reviewing the situation, or even questioning personal beliefs. It can also be problem-oriented actions to help deal with an objective problem faced by the individual, or emotional reactions targeted actions to help the individual cope with the emotional consequences of psychological distress (Ladegård, 2011).

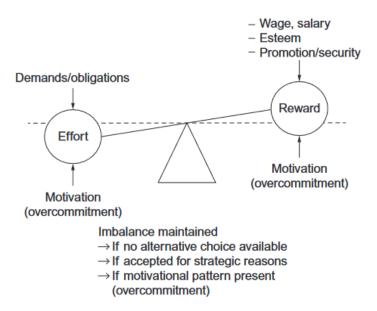
The transactional stress theory views the stress process as cyclical and iterative, i.e., the measures that the individual has chosen as coping strategies and the resulting psychological stress will return to the stress process chain in the appraisal stages, thus changing the perception of both the immediate work environment and the available resources. It follows that time is an important factor in the transactional model of the stress process, as the assessment and perception of stressful circumstances may also change as a result of an individual's experience of coping with them in the past (Edwards, 1992; Lazarus, 1990).

In 1987, Warr developed the **vitamin model**. In the vitamin model, Warr argues that there are nine job characteristics that influence employee well-being. Warr compares the effects of environmental factors with the effects of vitamins: initially, vitamin intake leads to improvements in health, but after a certain level there is no improvement, and sometimes health may also get worse (Warr, 1987).

According to Warr (1987, 2016), the following factors such as the opportunity for personal control, the opportunity for skill use and acquisition, externally generated goals, variety, environmental clarity, and contact with others, only have a positive effect up to a certain level, after which they become negative. In contrast, the other six job characteristics: availability of money, physical security, valued social position, supportive supervision, career outlook, and equity have a permanent effect, i.e., the employee's well-being is maintained at the same level. The vitamin model also focuses on individual differences between people. Although

the structure of the model is characterised as more situationally oriented, which means that explanations are not primarily sought in individuals, it is pointed out that individual characteristics and situation-based mental processes can influence the well-being of an individual (Warr, 2016).

Siegrist's (2016) model, like other transactional models, focuses on the cognitive processes and emotional reactions that influence the individual and environment. Siegrist's **effort-reward imbalance model** suggests that persistent feelings of stress can be defined as a discrepancy between the identical high effort and the low rewards received (Picture 5). The model defines effort as the mental and physical energy expended to achieve organisational goals, while the reward is the compensation for effort, expressed in three forms: money, respect, and career opportunities, including job security (Siegrist, 2016).

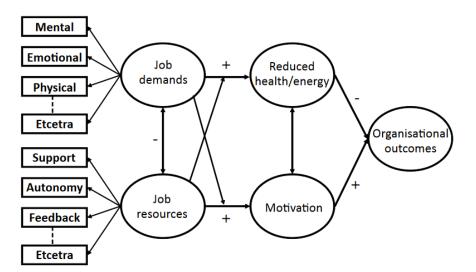


PICTURE 5. Effort-reward imbalance model (Siegrist, 2016).

The model shows that high effort and low rewards risk health. Research (Siegrist, 2008) shows, that dissatisfaction and anger at the inadequacy of rewards for effort often lead to anxiety, depression, and heart disease. According to Siegrist (2016), stress is most intense and lasts longest in circumstances where the lack of alternative options in the labour market forces people to work in jobs they dislike. However, an employee may tolerate an unjust work organisation for some time for strategic reasons, sacrificing present well-being for better career opportunities in the future.

Bakker and Demerouti (2007) developed the **job demands-resources model** building it on Karasek's (1979) demand-control and Siegrist's (1996) effort-reward models and eliminating their shortcomings.

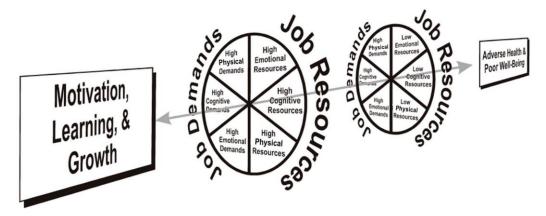
The two models on which Bakker and Demerouti (2007) base their basic assumption that job demands cause stress when job resources are scarce are: job control in Karasek's (1979) demand-control model and reward, achievement appraisal, and security/career opportunities in Siegrist's (1996) effort-reward model. Karasek's (1979) and Siegrist's (1996) models have the advantage of simplicity, but this can also be seen as a disadvantage as the organisational environment is much more complex and the simplicity of the models does not reflect reality. The shortcoming of both models is that it leaves no room for the integration of other stressors. It was also not clear why increased workload or effort should be the most important stressor (Bakker, Demerouti, 2007). To eliminate these shortcomings, Bakker and Demerouti formulated the job demands-resources model firstly as a model to identify possible burnout and investigate the origins of motivation on one side and health issues as a result of stress on another side (Picture 6). The main advantage of this model is its complexity and flexibility, allowing it to include new stressors and adapt it for specific groups (Demerouti & Bakker, 2011; Lesener et al., 2018).



PICTURE 6. Job demands-resources model (Demerouti & Bakker, 2011).

This model gained popularity and has become one of the most influential theoretical frameworks that investigates the connection between job characteristics and employee well-being (Lesener et al., 2018).

Another model that integrates some precedent work-related stress models was developed by de Jonge et al. (2008). The **Demand-induced strain compensation model** is assumed to find optimal combinations of demands and resources that could lead to a better understanding of how specific job demands put employees at risk and how specific job resources protect them from strains or even improve their well-being and performance.



PICTURE 7. Demand-Induced Strain Compensation (DISC) Model (de Jonge et al., 2019).

The model incorporates two main principles (Picture 7): the principle of multidimensionality and the principle of triple matching. The multidimensionality principle argues that job demands, job resources, and job-related consequences are multidimensional constructs that include a cognitive component mainly arising from the processing of information; an emotional component that includes the emotions and reactions to them in interpersonal relationships, and a physical component that is primarily assigned with the musculoskeletal system. Finally, like for demands and resources, job-related health, well-being, and performance-based outcomes may also include cognitive, emotional, and physical aspects. These outcomes can be both negative and positive. For example, concentration problems and creativity are cognitive outcomes, emotional exhaustion and emotional energy are emotional outcomes, and physical health complaints and physical strength mainly reflect physical outcomes (de Jonge et al., 2019).

The second guiding principle is the Triple Matching Principle. TMP states that the strongest interactive relationships between job requirements and job resources are observed if requirements, resources, and outcomes are based on qualitatively similar dimensions (de Jonge et al., 2008, 2019; Mark, 2008).

In summarizing the analysis of the stress models, it is important to outline the different approaches of researchers to job-related stress. Some researchers, such as Karasek, Warr, de Jonge, and Demerouti, emphasized the causes of stress in the work environment from a situational point of view, while others (Lazarus, Siegrist, etc.) viewed stress as a process and focused on stress from individual's point of view. Some authors have assessed job stress in their models by selecting one or a couple of factors, e.g., Karasek on job demands and control, Siegrist on effort-reward balance, etc. This choice of researchers was later criticised for ignoring other factors and for unclear priorities as to why the factors they identified were the most important in assessing job-related stress. Other researchers, such as Demerouti, de Jonge, etc. developed comprehensive models that include a variety of stressors and their related consequences. However, it is important to note that while most authors have sought to identify the most important stressors or consequences in their models, none of the work stress models have comprehensively assessed and linked stressors and work stress management tools.

### 2.3 Analysis of stressors at work in an education sector

Work stressor is a certain work-related characteristic or experience that stimulates stress response (Searle et al., 2022). The scientific literature offers a wide range of factors causing stress at work, for example, Karasek (1979) identified job demands and control as the most important stressors in his model. In addition to demands and control, Siegrist (2002) emphasised the importance of rewards for effort. According to Cooper (1983), work stressors can be divided into six groups: stressors intrinsic to the job such as long working hours, poor working conditions, etc.; role in the organisation such as role ambiguity and role conflict; career development which includes under promotion, job insecurity, etc.; relationships at work; organizational structure and development such as leadership style or climate at the organization; and home: work interface that includes the lack of

support from family members. LePine et al. (2005) categorise the factors that cause stress at work as challenging and hindering. The challenging stressors act as a stimulus to find new solutions in the face of constraints and obstacles that can be acted upon, such as work pressure. Hindering stressors are those characteristics of work that interfere with personal development and the achievement of goals, e.g., role ambiguity, and job insecurity. Such categorisation is similar to the separation of stress into distress and eustress.

Stressors provided in the scientific literature may be summarized by the World Health Organisation (2020) which categorizes work-related stressors into two groups: work content and work context stressors.

# 2.3.1 Stress in schools and higher education institutions

Traditionally higher education institutions are seen as low-stress working environments, however, rapid advances in science are changing society's attitude towards higher education, and competition between vocational schools, colleges and universities make study quality assurance important. In addition, society demands the application of educational content based on the latest scientific knowledge and modern teaching methods, a well-developed infrastructure, and scientific laboratories with the latest innovative technologies that help students to put theoretical knowledge into practice. The fulfilment of these demands usually falls on the shoulders of the lecturer as it is only on the high level of expertise and personal scientific commitment depends on how the quality of the studies will be ensured and whether society's expectations will be met.

School teachers' profession has long been recognized as one of the high-stress professions and nowadays, teachers' occupation has become one of the most stressful occupations (Eurostat, 2021; Health and Safety Executive, 2021; Zambas, 2022).

Research carried out in countries all around the world specifies the same stressors associated with work in educational institutions (Gillespie et al., 2001). These stressors are summarized in Table 2.

TABLE 2. Stressors in the education sector (Bottiani et al., 2019; Brady & Wilson, 2021; Carroll et al., 2020; Education Support, 2019; Gillespie et al., 2001).

Stressor	Stressor's description				
Workload	Workload and nature of work, time constraints, lack of supervision.				
Work-related changes	Reorganisations of institutions, accreditations, audits, changes in structure and management, reorganisations of education systems, qualification requirements, compulsory academic work.				
Relationships at work	Perfectionism, lack of social support, competition, role duality (intense role reversal in the working environment among students, colleagues, administration, and the teacher-researcher role duality in higher education).				
Work requirements	Increased bureaucracy, lack of autonomy, new teaching methods, new ICT tools, "Zoom" fatigue.				
Working conditions	Inadequate salary, teaching and research infra- structure, research funding, and students' behav- iour.				
Work-life imbalance	Increased workload, lack of time management skills, inability to detach from work after working hours.				

In summary, it is possible to single out the main criteria that determine teachers' stress at work: job loss; change of work functions; greater workload than one can handle, lack of time, deadlines, unclear expectations, increased expectations; relations with managers; relations with colleagues; interpersonal conflicts, insufficient training, keeping pace with new technologies, insufficient opportunities, teaching students who lack motivation, maintaining discipline, peer evaluation, reputation. Role dualism, research funding, and its infrastructure are the additional stressors for academic employees in higher education.

# 2.4 Influence of sociodemographic characteristics on occupational stress

Selye, Lazarus, and other stress researchers (French, 1973; Lazarus, 1966; Selye, 1951, 1976) admit that stressors weaken a person, but emphasize that the intensity of stress depends on the person's mood and the environment around him. Events themselves are not stressful until they are perceived as such. Perception is how a person receives information from the environment and interprets it. The same information is perceived differently by different people. The same situation can cause greater or lesser stress depending on the experience the employee has or if he/she has already encountered similar factors.

Work experience negatively correlates with stress. To support such a statement, two explanations can be found in the scientific literature (Wang et al., 2017): the first is selective withdrawal: those who feel more stressed change jobs more often, while more stress-resistant employees remain in organizations. Another explanation is that employees develop a coping mechanism for stress, and since this takes time, it is likely that employees who work longer in an organization will be fully adaptive and feel less stressed. Research conducted by Daniels, Hartley, and Travers (2006) shows that negative memories or beliefs about organizational factors cause employees to have greater immediate negative effects than those without negative attitudes about the same factor. In addition, studies show that the same stressors affect the stress levels of men and women differently (Kreuzfeld & Seibt, 2022; Stengård et al., 2021).

Scientists disagree on how age affects stress at work. According to Matteson and Ivancevich (1987), the age of workers affects work stress indirectly, but through work experiences. Scientists distinguish two age stages when employees feel the greatest stress - the so-called "midlife crisis", when cherished career plans do not come true, and the body already shows the first signs of aging, and the pre-retirement age. Meanwhile, Hsu (2018) states that younger employees are more affected by stress, while older and more experienced employees suffer less from stress.

The impact of employee education on stress levels is difficult to define since variables such as age and socioeconomic status are related to education. Research has confirmed a direct relationship between stress at work and the level of education in only one aspect - employees with a lower level of education feel more stressed than their colleagues (Matteson, Ivancevich, 1987), however, this assumption should lead to the conclusion of teachers and lecturers being affected by stress less than other occupations requiring a lower level of education. Yet, a recent survey in the United States indicated that teachers and school principals are more than twice as likely to be stressed as other working adults (Elizabeth D. Steiner et al., 2022).

# 2.5 Organizational stress management measures

According to Ivancevich and Matteson (1987), there are two groups of stress management measures - individual and organizational. Organizational stress management measures could be defined as all management efforts directed at stressors and aimed at reducing any negative consequences caused by stress. Such a definition includes both measures designed to remove stressors from the work environment and those designed to balance the needs, goals, knowledge, and skills of the employee with the work tasks and environment.

Organizational stress management measures at work are measures designed to eliminate or control stressors and/or help an individual become more resilient to and cope with stress (Randall et al., 2005). The key to managing stress at work is change. Individual stress management measures are based on individual changes, i.e., what the employee can change in himself to overcome or avoid stress. Meanwhile, the organizational stress management measures are the changes in the organization.

All organizational stress management measures at work are divided into three levels (Holman et al., 2018; Tetrick & Winslow, 2015):

 Primary measures to reduce stress by modifying or eliminating stressors in the work environment, such as ergonomic measures, social support, perceived organizational support, involvement in decision-making, communication, career management, etc.

- Secondary measures identify the early signs of stress at work and help individuals to cope more effectively with stress at work, usually in the form of stress management training for employees.
- Tertiary measures are designed to develop a more sensitive and responsive management system and to strengthen the concern for the safety and health of employees and are aimed at restoring the performance of employees who are already suffering from stress at work employee assistance programs.

The nature, purpose, and results of the occupational stress management measures are summarised in Table 3. It is worth mentioning, that stress management measures do not have to be one-time events or a purely technical process. Based on the identification of adequate risk factors and groups, and properly presented and implemented, measures to manage stress at work are beneficial to both sides - the employee and the organization (Tran et al., 2020).

TABLE 3. Occupational stress management measures (adapted from Bhui et al., 2012; Holman et al., 2018; Tetrick & Winslow, 2015; Tran et al., 2020).

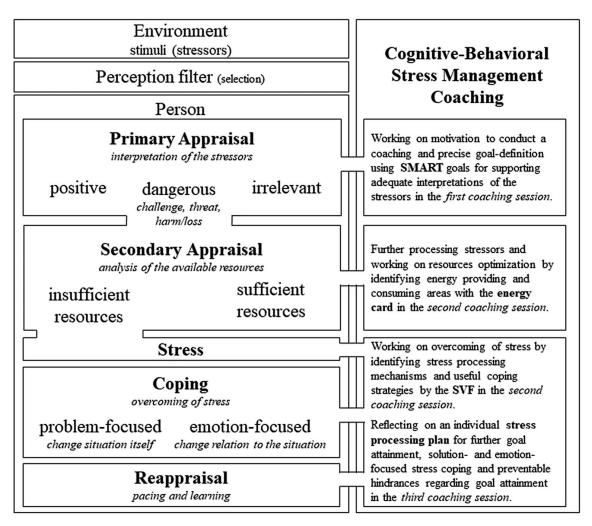
Interven- tion type	Goal	Organizational level	Organizational and individual interface	Individual level	Expected results
Primary	Prevent tension from happening in the employee.	Improvement of work content, time, and schedules, job redesign, wellness programs, and career development, mentoring, social support, rewards, involvement in decision-making.	Time management, improvement of interpersonal skills, and work/home balance.	Pre-employment medical examination, selection and assessment, and didactic stress management.	Reduced the number or intensity of stressors, and increased productivity, motivation, and job satisfaction.
Secondary	Find ways to equip employees with the knowledge and skills to manage stressful conditions.  Give opportunities for employees to engage in activities to lessen stress.	Improvement of communication and decision-making, conflict management.	Peer support groups, coaching, and career planning.	Cognitive behavioural techniques, meditation, relaxation, mindfulness training, personal and interpersonal training, acceptance and commitment therapy, psychosocial intervention training, coping skills training, and resilience training.	Reduced stress-induced ailments by helping employees to change their assessment of potentially stressful situations.

Tertiary	Concentrate on the employee with a high-stress level that can impair the ability to perform their work.	Vocational Rehabilitation and outplacement.	Posttraumatic stress assistance programs and group psychotherapy.	Rehabilitation after sick leave, disability management, case management, and individual psychotherapy.	Reduced physical and psychological ailments, helping employees cope more effectively with consequences.
Outcome measures		Productivity, turnover, absenteeism, and financial claims.	Job stressors such as demands, control, support, role ambiguity, relationships, change, with burnout.	Mood states, psychosomatic complaints, subjectively experienced stress, physiological parameters, sleep disturbances, and health behaviors.	

Research (Bhui et al., 2012; Holman et al., 2018) has shown that the most used interventions in organizations fall into two categories of primary and secondary levels, while secondary-type individual and primary- and secondary-type organizational interventions are proven to be the most effective. In addition, these interventions are more valued by the employees themselves (Tran et al., 2020). Also, the costs of rehabilitation, post-traumatic treatment, and hiring additional staff in the event of sickness or simply reduced productivity, far outweigh the investment needed to keep workers coming to work, staying sick, and feeling job satisfaction.

The measures of the organizational level of stress management interventions usually are complex. However, despite the level or type of stress management strategy or combination of strategies used in improving the healthcare of employees, their main objective is to enable the restoration or creation of a working environment in the organisation that provides a good management culture. Stress management measures that emphasize the connection between the individual and work environment, such as job redesign or coaching, are proven to be sustainable changes for the individual and the organizations (Landsbergis & Vivona-Vaughan, 1995). Coaching as a method, which increases self-management skills, may contribute to the changes that enables to cope with stress. For example, a study by Wales (2002), which investigated the influence of coaching program for managers, reported that coaching enhanced stress management abilities and reduced stress level by improving a general quality of life. Other studies also suggest that coaching can be a useful stress management technique (Ebner et al., 2018; Ladegård, 2011; Wright, 2007).

The previously mentioned transactional work stress model (Lazarus, 1990) can be applied not only to the determination of the stress, but also to its management and reduction. Cognitive – behavioural coaching can influence all three components of the stress, the interpretation of the stressors, the analysis of the available resources, and the coping the stress by increasing the personal perception of the current situation (primary appraisal), facilitating the recognition of personal means that could be used for the achievement of aim (second appraisal), and developing, evaluating, and performing action plans to increase the aim accomplishment (coping strategies) (Picture 8).



PICTURE 8. Transactional model of stress and suggested coaching approach as stress management measure (Traut-Mattausch et al., 2021).

Embse et al. (2019) suggest four main categories of stress management interventions for employees in the educational sector:

- Knowledge-based interventions, which include informational or psychosocial training of educators. Informational training covers the educational material on behavioural disorders (e.g., attention deficit hyperactivity disorder (ADHD)) and psychosocial training that educates on stress risk. However, knowledge-based interventions usually do not cover a physiological or wellness element to decrease stress.
- Behavioural interventions, which include the practice of a defined skill or strategy to reduce teacher, stress, such as meditations, relaxations, coaching, etc.
- Cognitive-behavioural interventions, which include cognitive training together with strategic behavioural practice to provide teachers knowledge and skills in order to cope with work-related stress. Such interventions

- combine training and practice for better stress management of educators, i.e., coaching.
- Mindfulness-based interventions, which provide training on mindfulness techniques helping to reduce distress and improve well-being. Yet, recent studies (de Carvalho et al., 2021; Klingbeil et al., 2017; Klingbeil & Renshaw, 2018) show that mindfulness-based interventions are more effective for changing students' behaviour instead of educators.

### 3 METHODOLOGY

The aim of this study is to reveal the causes of stress, its characteristics, and methods of stress management that undermine the quality of work of educators' who are studying at or graduated from TAMK Master program Educational leadership. By analysing the respondents' opinions, the suitability and effectiveness of stress management methods was examined, and alternative solutions to the problem were sought.

The quantitative data collection method was used as the main research method in the empirical part of the study. In addition, the survey comprised open-ended questions and this qualitative data collection was treated and emphasised as complementary, only to complement the main study. The quantitative type of empirical research (Bhandari, 2022) was chosen because it provides easily accessible and reliable objective data on educators' stressful experiences and stress management methods, allows tracing logical causal relationships between variables (stress and stress management methods), helps to mathematically classify the results, to graphically systematize the results of the survey, and to draw conclusions by means of a deductive method, from the individual facts to the theoretical generalization. In the quantitative study, the survey recorded and summarised only real facts (respondents' answers, experiences) about the work environment and activities (stress management methods) to cope with stress. Survey research is a useful and legitimate approach to research that has clear benefits in helping to describe and explore variables and constructs of interest (Ponto, 2015).

### 3.1 Sustainable Brain Health project

TAMK's Sustainable Brain Health Project is a research and development project that aims to create new, sustainable methods for brain health management and promotion. The main goals of the project can be summarised as the development of the methods for brain health management and promotion; creation of a com-

prehensive understanding of the factors that contribute to brain health; identification of a new, innovative ways to prevent stress and enhance well-being; and creation an international network of experts in the field of brain health.

### 3.2 Development of the survey

The survey is a part of the Sustainable Brain Health project as described in point 3.1. Brain health is a key factor for the well-being of workers and work communities, as well as for the productivity of the work. The project focuses on cognitive ergonomics, information ergonomics, affective ergonomics, self-direction and ethical workload (Kestävä Aivoterveys) Tampereen Korkeakouluyhteisö, n.d.).

A survey was created to assess the stressors and other factors that could influence the changes in brain health over time. The study collected data on a variety of health and well-being measures, including cognitive function, physical health, mental health, and social and emotional well-being.

The survey consists of the following parts:

- 1. Sociodemographic this part aims to find out the basic data of the respondents: gender, age, relationship status, number of dependent persons, education, occupation and years of experience.
- 2. Job requirements and organization of job this part aims to investigate the workload, clarity of work requirements and work role, visual and auditory ergonomics, problem solving factors and autonomy at work, and opportunities to develop skills.
- 3. Information and technology load this part aims to find out about the factors involved in processing information in work, the technology load, the work expectations, the support related to the use of technology at a workplace, and the productivity and innovation related to the use of technology at work.
- 4. Social support and work community this part aims to investigate the importance of social support, psychological safety in work.
- 5. Work wellbeing experience this part aims to find out about the suction of work in a workplace and the feeling of stress at the at the time of completing the survey.
- 6. Brain load this part aims to investigate the brain load which refers to all workrelated factors that reduce the effectiveness and quality of work, i.e. disturbances,

interruptions, data floods, ambiguities, time pressure, learning new things, memory load, decision-making, and ethical load, among other things.

- 7. Self-management and motivational factors this part aims to find out about the intensity of the applied self-management strategies and the factors that motivate in work.
- 8. Emotions this part aims to investigate the emotional atmosphere at work individually and in work community.
- 9. Ethical load this part aims to find out the ethical load at work taking into account ethically unsatisfactory factors in work and their influence on the responder's emotional state.
- 10. Lifestyle, presence, sleep, exercise, nutrition, recovery these parts aim to investigate the lifestyle factors that influence stress occurrence and its perception.
- 11. Resource factors at work this section aims to gain information on the factors that increase responder's well-being at work.

### 3.3 Participants

This analysis was conducted as a part of TAMK Sustainable Brain Health Project. The authors of the thesis also thought that it would be interesting to examine the participants of the Master of Educational Leadership as a specific target group to be included in the project. The online survey was administered among different MEL participants; however, there is no indication of their responses coming from the current or graduates of the program. This could be an interesting distinction for future data collection if there will be additional work done on the MEL participants as a target group.

We targeted the former as well as the current participants of the Master in Educational Leadership in the period from mid-October to early November. We received 19 answers. The validation of the data came from informal interviews and observations of the participants' pre and post the survey.

Women were the majority group that responded to the survey with 16 responses (n=16) while men submitted three responses (n=3).

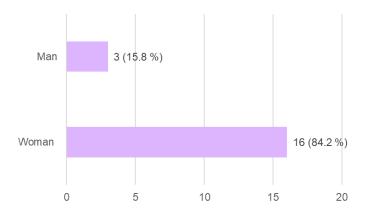


FIGURE 1. Responders' gender distribution.

The age of the respondents can be clustered in three brackets: (1) between 30-35 years old - 8 respondents (n=8), (2) 36-41 years old - 7 respondents (n=7), and (3) 42 and older - 4 respondents (n=4).

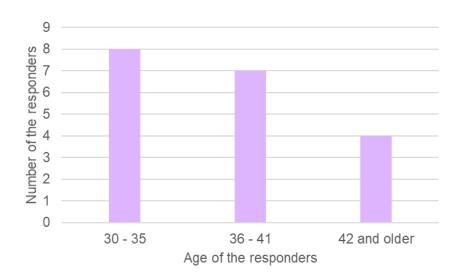


FIGURE 2. Responders' age distribution.

Majority of respondents do not have dependent children (n=14) and only three respondents (n=3) said that they are caregivers to older relatives. The majority of respondents (n=13) also declared that they are in a relationship. As for education level, only one respondent has only undergraduate degree while the majority hold a master's level (n=13), and 5 respondents (n=5) post graduate degree such as a doctorate. It can be concluded that this master's degree is a second master's degree for a majority of the responders.

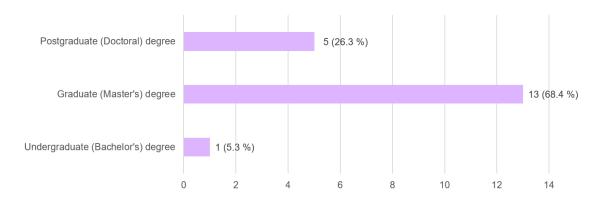


FIGURE 3. Responders' education level.

#### 3.4 Data collection

As a method for the data collection, we used a web-based survey tool which was created in Google Forms. This method allowed us to send the survey to a number of respondents which could take the survey at their convenience. The Google form questionnaire included different types of questions such as open and closed-ended questions that were multiple-choice and scale questions. These types of questions are standard and commonly used questions in surveys (Hirsjärvi, Remes & Sajavaara, 1998). The questions in the survey aimed at identifying factors that could influence the brain-health and well-being and asked about technology, information overload, family situation, emotions, ways to relax. For the purpose of this thesis, we analysed the answers through the lens of looking at possible stress factors for MEL participants and assessing if there is any behavioural tendency through the similarity of the responses.

Much like other research methodologies, surveys have their own advantages and disadvantages that should be considered before deciding whether or not to use them. For us the advantage of using the survey came from the notion that this tool has been already used by the different researchers participating in the Sustainable Brain Health project, it is relatively easy and cheap to administer, and that they can provide a great deal of information about a large number of people in a short amount of time. However, as a disadvantage of the survey in our case we can point that it is a translation from Finnish (the original language of the survey) to English (a language that the MEL program is being taught at).

For us it was relevant to capture similar values and assume the comparability of answers between the two languages. The English version of the survey is presented in Appendix 1.

### 3.5 Data analysis

As indicated above the research method chosen was quantitative and the data collected was through online survey, which produced consistent and accurate answers.

The researchers agreed that the data collected will be analysed and presented in the descriptive format with an occasional use of graphs to confirm the theories and assumptions. Survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (Check & Schutt, 2012, p. 160). As the survey can be used for descriptive, explanatory, or exploratory research, we agreed that for the purpose of this study it will be the best method to gather data to examine individuals as a unit of analysis.

Sustainable Brain research focuses on three professions: teachers, nurses and IT professionals. In case of MEL students they could be pursuing different professions and aspire to be full time teachers or educators. However, for the purpose of this thesis the assumption is that the MEL participants are considered either formal or informal educators.

### 4 RESULTS

Through the data analysis we can see that the MEL participants felt overwhelmed by the demands of the job, worried about making mistakes, and concerned about the well-being of their students. All MEL students (n=19) were employed; (n=16) were in permanent employment, while two participants (n=2) were temporarily employed, and one participant (n=1) was a call-on-work employee. Most study participants (n=13) affirmed working on-site, while the rest (n=6) stated that they worked remotely. In addition, they often work long hours and have little time for themselves due to pursuing the master's degree. Most participants (n=10) stated that they hardly recovered from work-related loads. However, the majority of the respondents (n=12) indicated that they feel that they have a very strong grasp of self-leadership. The participants seem to be aware of their strengths and weaknesses and use that knowledge to their advantage.

#### 4.1 Work demands

Participants were asked about conditions at their workplaces. Nearly all participants of the study (n=18) stated that their profession was too demanding such that they were required to adhere to a lot of information (n-16), their work required them to think a lot (n=18), their work required them to follow several things at once (n-18), they were required to analyze a lot of information (n=16), they were expected to be available often (n=15), and they were expected to attend to work issues outside working time (n=17).

### 4.1.1 Mental health in the workplace

Study participants presented various factors that influenced their mental health primarily at the workplace or due to tasks associated with their occupation. Beginning with workplace ergonomics, most study participants in the teaching profession stated that their work environment comprised distracting activities, with 17 study participants in the teaching profession (n=17) stating that their work environment at least comprised noise pollution.

## 4.1.2 Clarity of the role

Regarding the clarity of work role, the majority of the study participants affirmed the clarity of their work roles, with 15 participants (n=15) affirming that they got all the information they required to get their jobs done, 16 participants (n=16) stating that their work had clear goals, 17 study participants (n=17) stating that they were aware of their work responsibilities and work expectations.

### 4.1.3 Problem solving

Regarding workplace problem-solving factors, nearly all participants (n=18) stated that their workplaces required creativity, 11 participants (n=11) stated that they had encountered problems they never encountered before in their workplaces, and 10 participants (n=10) stated that their work required them to develop unique problem-solving ideas or solutions.

### 4.1.4 Autonomy

Regarding study participants' autonomy in making work-related decisions, most participants had autonomy in making work-related decisions, with 14 participants (n=14) stating that they had the opportunity to make work-related decisions independently, while 10 participants (n=10) stated that they had significant autonomy regarding making work-related decisions.

About the opportunity to develop skills at work, most participants (n=16) stated that their work environment allowed them to learn new things, while 13 participants (n=13) stated that their workplace comprised new things that they had to learn.

### 4.1.5 Technology

Nearly all study participants (n=17) stated that technology played a vital role in their profession, with technology significantly affecting their work schedule. In addition to applying technology in various processes, the majority of the participants

(n=14) affirmed that their respective organizations did not provide sufficient training regarding the use of new technology.

### 4.2 Emotional factors

Regarding the workplace emotional atmosphere, nearly all study participants stated that they were happy at their workplaces, and they had a little bad conscience about their workplaces.

### 4.2.1 Social support

Regarding workplace social support, most study participants stated that they received social support from colleagues (n=19), and from local managers (n=17). Regarding psychological workplace safety, most study participants affirmed that their workplace provided psychological support, with the majority (n= 12) stating that workplace mistakes were not used against them, team members raised issues (n=12), teams did not practice discrimination based on someone's differences (n=18), team members helped one another (n=16), team members did not interfere with other workers' assigned tasks (n=16), and team member utilized and valued individuals' skills.

### 4.2.2 Lifestyle and diet

Participants were also asked about their healthy lifestyles, with 10 participants (n=10) stating that they experienced the need to change their lifestyles, with some of them engaging in exercise activities ranging from slow and calm endurance exercises to intensive and strenuous endurance exercises. Study participants also provided information regarding their diet, with analysed information highlighting that nearly all study participants (n=19) consume fruits more often and fast foods, such as sweet pastries.

#### 4.2.3 Morale

Different workplace requirements influenced employees' morale to perform assigned duties, with nearly all participants (n= 15) stating that they were not fully dedicated to their work.

#### 4.3 Stress

Due to a demanding work environment, participants presented different perceptions regarding work-related stress. For example, the participant from the IT field stated not experiencing work-related stress, while nearly all participants in the teaching profession (n=14) affirmed experiencing moderate to high levels of work-related stress. Most participants (n=18) stated that overworking significantly subjected them to work-related stress. Other factors that contributed to work-related stress, as identified by study participants, include poor management and lack of clear communication between employees and management. To manage work-related stress, four participants (n=4) stated that they sought assistance from colleagues, one participant (n=1) affirmed doing tasks based on priority, while three participants (n=3) stated that working as a community reduced work-related stress. When asked about factors that motivated them to do their tasks, study participants stated factors, such as salary, student-teacher relationships, recognition, personal growth, and relationship with colleagues to be the motivating factors that drove them to do their work.

### 5 DISCUSSION

It is no secret that stress can have a negative impact on our work lives. However, one way to reduce stress is to find ways to stay motivated. When we are motivated, we are more likely to stay focused and positive, even when things get tough. Upon analysing the collected data, the following three themes emerged; causes of brain loads, managing workload, and factors increasing employee well-being at their workplace, as discussed below.

#### 5.1 Causes of Brain Loads

Brain loads occur when the brain is unable to process all the information simultaneously. In the study, participants aired various factors that caused brain loads. The primary identified factor that contributed to brain loads is information overload. Regarding information overload, participants highlighted that they encountered problems in their workplace that they had never encountered before, requiring them to think a lot about strategies to solve emerging issues. Participants also affirmed that their workplaces comprised a lot of information that they had to adhere to; they had to multitask, analyse a lot of information, and be available always such that they could respond to work-related queries even outside working hours due to their demanding work environment. Madore and Wagner (2019) affirmed the adverse impacts of information overload on the brain, such that it interferes with attention and control brain networks, reducing a person's efficacy of doing assigned tasks compared to if they focused on a single task. Other factors that participants noted to contribute to brain loads include poor management characterized by communication overload or unclear communication from the management and time pressure to complete many tasks within a specified period. The demanding work environment characterized by brain loads is the factor that is likely to cause participants to affirm that they were not fully dedicated to their workplace; furthermore, they could not fully recover from the effects of their workplaces' brain loads.

## 5.2 Managing Workloads

Study participants affirmed that their occupations were too demanding, adversely impacting their mental well-being as the majority of the study participants affirmed that they experienced work-related stress. Bhui et al. (2016) affirmed that among other factors, work intensity contributes to increased work-related stress among employees. Saleem et al. (2021) ratified this statement by affirming that increased workloads expose employees to work-related stress. Due to the adverse impacts of work-related stress on employees' mental well-being (Madore & Wagner, 2019), workload management interventions are vital as they are likely to promote employees' overall well-being at the workplace. In the study, participants presented several ways in which they managed their workloads, with primary interventions being seeking support from colleagues, taking breaks to brainstorm, relying on technology to enable them to plan their tasks, prioritizing tasks based on their urgency, and exercising. These interventions are effective in enabling employees to manage their workloads, subsequently reducing the risk of work-related stress. Studies (Foy et al., 2019; Norling & Chopik, 2020) ratified this statement by stipulating that, for example, co-worker support enhances better worklife outcomes, significantly reducing work-related stress. On the other hand, Weyh et al. (2020) highlighted the significance of employee exercises as it reduces employee workload, and improves psychological and physical well-being. In general, employees provided different interventions to reduce workload, which precedent studies ratified.

### 5.3 Factors that increase employee well-being at workplace

An ideal work environment is likely to promote employee satisfaction and motivation, subsequently leading to improved productivity. In the study, participants highlighted some of the factors that promoted their well-being at the workplace. This included self-leadership skills, salary, support from colleagues, support from the management, good teacher-student relationship, recognition, and job fulfilment. Self-leadership skills that participants identified in the study include having clear goals, and developing an effective schedule to enable them to achieve their goals. According to Pervaiz et al. (2021), setting goals impact employees' moti-

vation, with employees' goal setting depending on their relationship with the management. A good employee-employer relationship is likely to make employees feel appreciated, recognized, and supported, significantly improving their productivity (Pervaiz et al., 2021). On the other hand, a good relationship between employees improves their psychological well-being (Foy et al., 2019; Norling & Chopik, 2020), while salary, especially better pay, promotes employee engagement and satisfaction, subsequently promoting their retention, and dedication, which improves their overall productivity. Generally, employees' well-being is critical at workplaces, signifying the need for workplaces to provide employees with ideal workplace environments that promote their overall well-being.

## 5.4 Comparisons with other studies

This section compares the findings of the study with findings from precedent research. We especially wanted to look into the other research conducted under the Sustainable Brain Health Project and for that reason we look at the findings of research thesis of Marianne Suutari titled "Novice Teachers Mental Wellbeing at Work" (research 1) and an article by Paivi Mayor "Self-Leadership and Leaders' Roles in Supporting Mental Wellbeing of Educators" (research 2).

Research 1 presented findings collected from novice teachers through closed-ended questionnaires regarding aspects that impacted their mental well-being at work. In this research, participants presented ideas regarding self-leadership skills, occupational well-being, causes of brain loads, and how they managed brain loads. The findings of the current study align with the findings presented in this thesis. For example, in research 1, participants presented causative factors for brain loads, which included, among other significant findings, information overload, and unclear communication. This thesis presents similar findings, with participants highlighting presence of high workloads; for example, processing, or handling a lot of information within a short period, or being required to attend to work-related queries outside working hours, and poor communication by the management, as the primary causative factors for brain loads. Regarding self-leadership skills, participants in both studies highlighted that self-motivation was the primary factor that kept them at their workplace. Regarding managing brain load, participants in both studies acknowledge that support from colleagues, and

scheduling activities based on their priority as primary ways in which they managed their workloads. Generally, the findings presented in this thesis align with those presented in research 1.

The second comparison involves comparing the findings of this thesis with those presented in research 2. In research 2, data regarding employee psychological well-being was collected from 72 primary school teachers. Among other findings, study participants presented their self-leadership skills, which included effective planning of tasks, and setting goals and objectives. Participants in this study presented similar conclusions. These findings align with those in this thesis, as participants in the current study presented similar sentiments by highlighting examples of self-leadership skills that enabled them to manage high brain loads, which included seeking support from colleagues and scheduling tasks, and highlighted poor or lack of effective communication, among other factors. Among other findings, participants in research 2 and those in this thesis presented similar ways that enabled them to manage work-related stress, which included supportive colleagues, and working together with colleagues towards a common goal. In general, findings presented in research 2 were concordat with those presented in this thesis.

We also compared our findings with the findings of other studies that look at occupational stress and the well-being of employees.

In the research by Fortes et al. (2020) the researchers conducted a cross-cultural empirical study that aimed to explore the relationship between occupational stress and the psychological well-being of employees retrieved from Cabo Verde and China. The findings of the study highlighted that occupational stress contributed to negative psychological outcomes among study participants. These findings also confirm the observations and align with those presented in this thesis. In this study, participants highlighted the presence of high workloads; for example, processing, or handling a lot of information within a short period, or being required to attend to work-related queries outside working hours. This subjected them to work-related stress, which is likely to increase their likelihood of developing psychological disorders, such as depression and anxiety. In the other study by Bhui et al. (2016), the researchers conducted a qualitative study that aimed to

identify causative factors for work-related stress and effective interventions to address work-related stress. Researchers recruited 51 study participants from 12 organizations, which comprised public, private, and non-governmental organizations based in London. Causative factors of workplace-related stress that the researchers highlighted in the study include lack of appreciation, lack of support, and poor communication. On the other hand, interventions that the researchers highlighted in the study include physical exercise, taking breaks, and scheduling the handling of tasks based on their urgency. These findings align with those in this research thesis, as participants in the current study highlighted poor or lack of effective communication, among other factors, to be the leading causative factors of work-related brain loads, and various forms of physical exercises, taking breaks, and developing effective schedules, as the intervention strategies to manage their workplace brain loads.

## 6 RECOMMENDATIONS: COACHING PROGRAMME AS A STRESS MAN-AGEMENT MEASURE IN EDUCATION SECTOR

Among other motivational factors, the conducted study highlighted the support from colleagues as one of the most important component increasing the well-being of the educator. Therefore, after theoretically examining all the available stress management measures and based on the findings of this study, we decided as part of this paper to design a sample (self-)coaching programme (Appendix 2) with the aim to support educators and improve their overall well-being. Cognitive-behavioural coaching in educational institutions may respond to educators' needs by building on three core ideas that emphasise the importance of educators well-being:

- 1. It could help to address root causes of stress. Based on the literature research in the chapter, 2.3.1., it was found that there are many factors that can contribute to stress as an educator, such as work-related changes or work-life imbalance, etc. In addition, it could be the pressure of meeting high standards, managing a classroom of diverse learners, or dealing with challenging behaviour. Whatever the cause of stress, coaching can help to identify the root cause and develop a plan to address it.
- It could help to develop healthy coping mechanisms. It is important to have healthy coping mechanisms in place to deal with stress. This could involve learning how to better manage time, developing a support network, or practising relaxation techniques.
- 3. Coaching can improve overall well-being. When struggling with stress, it can be difficult to focus on anything else. However, it is important to remember that well-being is more than just mental health. Coaching can help to develop a holistic approach to well-being, which includes physical, emotional, social, and spiritual health.

### 7 CONCLUSIONS

The stress management of educators is a complex issue that requires a multifaceted approach. MEL students as aspiring educational leaders must develop strategies for reducing stress and improving emotional well-being. This includes developing coping skills, setting boundaries, taking care of their physical health, and reaching out for support when needed. MEL participants must also be aware of their own limitations and be willing to take steps to reduce their workload when necessary. By taking steps to manage their stress, educators can ensure that they are better able to serve their students and maintain a healthy work-life balance. Self-leadership is an important part of an educators' wellbeing. MEL participants as well as other educators should create a plan that works for them to help improve their wellbeing and reduce stress. This plan should include activities such as regular exercise, getting enough sleep, eating a healthy diet, and making time to relax and do things they enjoy. They should also make sure to take regular breaks from work and to practise mindfulness and positive thinking. By taking the time to invest in their own wellbeing, educators can be better equipped to handle the stresses of their job and ensure that they are providing the best learning environment for their students. Through analysis of the respondents, we also see that it could be beneficial to develop self- coaching to promote healthy habits, self-leadership and wellbeing by building on the things that they consider as motivating factors (Appendix 2).

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### **APPENDICES**

Appendix 1. English translation of the survey

### **INITIAL SURVEY - SUSTAINABLE BRAIN HEALTH**

Required fields are marked (\*) and must be completed to submit the form.

### 1. BACKGROUND information

Name information does not appear in the report and the results of the survey are not viewed by person. Name data is only requested so that the results of the survey can be combined with any other surveys or measurements carried out during the project.

- First name \*
- Surname \*

## What field do you work in? \*

- Teaching
- Nursing
- IT industry

### Gender \*

- Woman
- Man
- Other
- I'd rather not say

How old are vou? ^	low	old are you? *	
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Do you have any dependent children? \*

- Yes
- No

Are you involved in caring for a loved one (e.g. an elderly relative)? \*

- Yes
- No

### Relationship status \*

- Not in a relationship
- In a relationship
- I'd rather not say

### Level of education \*

- Primary school (elementary, primary or secondary school)
- Secondary school (Vocational school or vocational college, upper secondary school)
- Lowest higher degree (former college degree)
- Undergraduate (polytechnic, bachelor's degree university)
- Master's degree (master's degree, master's degree university)
- Postgraduate degree (licentiate or doctorate)

## Work experience in your current workplace \*

- Year
- Months

### **Employment \***

- On call work
- Temporary
- Indefinitely valid, permanent

## Do you work remotely? \*

- Yes
- No.

### How much of your working time do you work remotely per week?

- Less than half the working time remotely
- More than half of working time remotely

### Are you in a managerial position? \*

- Yes
- No

### 2. JOB REQUIREMENTS AND ORGANIZATION OF JOB

## Evaluate the requirements related to your work. Evaluate requirements on a scale of 1 to 5.

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = quite often, 5 = very often or always

- Is your workload unevenly distributed so that work is congested? \*
- Are you busy with your work?\*
- Do you have too much work to do? \*
- Do you have to make quick decisions in your work? \*
- Does your work require solid concentration? \*
- Are interruptions interfering with your work? \*
- Do you have to make complex decisions at work? \*

# Evaluate the visual and auditory ergonomics associated with your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- Is there any disturbing speech and sound noise in your work environment?
- Is there any disturbing video noise in your work environment? \*
- Are there any distracting moving objects in your work environment? \*

## Evaluate the clarity of your work role. Rate the statements on a scale of 1 to 5.

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- Do you get all the information you need to perform well in your work? \*
- Does your work have clear goals? \*
- Do you know exactly your responsibilities? \*
- Do you know exactly what is expected of you at work? \*

## Evaluate problem-solving factors in your work. Rate the statements on a scale of 1 to 5. \*

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- In my work, I have to solve problems for which there is no clear correct answer. \*
- My work requires creativity from me. \*
- In my work, I often have to face problems I haven't encountered before. \*
- My work requires unique ideas or solutions to problems. \*

## Evaluate factors related to autonomy in your work. Rate the statements on a scale of 1 to 5. \*

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- I can use my own initiative and discretion in carrying out my duties. \*
- I have the opportunity to make decisions related to my work independently.
- I have significant autonomy in making decisions about my work. \*

## Evaluate your opportunities to develop your own skills in your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- Can you use your skills and expertise in your work? \*
- Do you have opportunities to develop your skills in your work? \*
- Do you have a chance to learn new things at work? \*

Is there too much new to learn in your work? \*

### 3. INFORMATION AND TECHNOLOGY LOAD

# Evaluate the factors involved in processing information in your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- In my work, I have to follow a lot of information. \*
- My work requires a lot of thinking. \*
- In my work, I have to follow several things at once. \*
- In my work, I have to analyze a lot of information. \*

## What kind of presence expectations are set for your work? Rate the statements on a scale of 0 to 4.

Scale: 0 = never, 1 = rarely, 2 = every now and then, 3 = often, 4 = almost always

- I am expected to be available at all times (e.g. by phone, email, or Instant Messaging). \*
- I am expected to read email outside of working hours. \*
- I am contacted for work-related matters outside of working hours. \*

## Evaluate the technology load associated with your work. Rate the statements on a scale of 1 to 5. \*

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- Technology forces me to work faster. \*
- Technology forces me to do more work than I can handle. \*
- Technology forces me to work on a tight schedule. \*
- I am forced to change my way of working to adapt to technological advances. \*
- The complexity of technology has increased my workload. \*

## Evaluate support related to the use of technology at your workplace. Rate the statements on a scale of 1 to 5. \*

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- Our organization encourages information sharing in the use of technology.
- Our organization emphasizes the importance of teamwork in solving technology-related problems. \*
- Our organization provides training for staff before introducing new technology.

# Evaluate how technology affects the productivity and innovation of your work. Rate the statements on a scale of 1 to 5. \*

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- Technology helps me improve the quality of my work. \*
- Technology helps me improve the productivity of my work. \*
- Technology helps me do more work. \*
- Technology helps me perform better in my work. \*
- Technology helps me identify innovative ways to do my work. \*
- Technology helps me come up with new ideas related to my work. \*
- Technology helps me experiment with innovative ideas in my work. \*

### 4. SOCIAL SUPPORT AND WORK COMMUNITY

## Evaluate the importance of social support in your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- Can you get help and support from your colleagues if needed? \*
- Can you get help and support from your local manager if needed? \*
- Will your colleagues listen to your work-related problems if necessary? \*
- Will your manager listen to your work-related problems if necessary? \*

# Evaluate the importance of psychological safety in your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- If I make a mistake in my work, it is often used against me. \*
- Our team members can raise issues and tricky things. \*
- Our team members sometimes reject others because of their differences.\*
- Taking risks is safe in our team. \*
- It is difficult to ask our team members for help. \*
- No one on our team would intentionally interfere with my work. \*
- My individual abilities and skills are valued and utilized in the work of our team. \*

### 5. WORK WELL-BEING EXPERIENCE

## Evaluate the suction of work in your work. Rate the statements on a scale of 0-6.

Scale: 0 = Never, 1 = A few times a year, 2 = Once a month, 3 = A few times a month, 4 = Once a week, 5 = A few times a week, 6 = Daily

- I feel full of energy as I do my job. \*
- I am excited about my work. \*
- I am completely immersed in my work. \*

Stress refers to a situation in which a person feels tense, restless, nervous, or anxious, or has difficulty to sleep while things are constantly bothering their minds. Do you feel this kind of stress today? \*

- Not at all
- Just a little
- Some
- Quite a lot
- Very much

How well do you feel you recover from the workload after your work day? \*

Very badly (sliding scale to ten) Very well

### 6. BRAIN LOAD

In this survey, brain load refers to all work-related factors that reduce the effectiveness and quality of work. The brain load is increased by disturbances, interruptions, data floods, ambiguities, time pressure, learning new things, memory load, decision-making, and ethical load, among other things.

What factors do you feel in your work cause you brain loads in connection with e.g. work community, organization, management, tools, or your own activities? \*

\_\_\_\_\_

What factors do you feel that your work helps you manage brain loads in relation to, e.g., work community, organization, management, tools, or your own activities? \*

\_\_\_\_

### 7. SELF-MANAGEMENT AND MOTIVATIONAL FACTORS

Evaluate self-management statements for your work. Rate the statements on a scale of 1 to 5.

Scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree

- I set clear goals for my own work performance. \*
- I am working towards the goals I set myself. \*
- I make sure I stay aware of how well I am doing in my work. \*
- I successfully visualize myself performing a task before I do it \*
- When I have successfully completed a task, I often reward myself with something I like \*
- Sometimes I talk to myself (out loud or in my head) to go through difficult situations.\*
- I reflect on my own beliefs and assumptions whenever I face a difficult situation \*

How would you rate your self-leadership skills? Justify your answer. \*

How well do you identify what motivates you in your work? \*

- Very well
- Very
- Moderately
- Poorly
- Very poorly
- I don't know

Describe what motivates you in your work. List the three most important motivating factors. \*

How well can you implement these factors that motivate you in your work?

\_\_\_\_\_

### 8. EMOTIONS

Evaluate emotional statements for your work. Evaluate statements on a scale of 1 to 5. \*

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- How often do you find yourself in situations in your work that give you negative feelings such as anger, fear, or shame? \*
- How often do you have situations in your work that evoke positive emotions in you, such as enthusiasm, satisfaction, joy, or happiness? \*

Evaluate the emotional atmosphere in your work community. Evaluate the number of different emotions on a scale of 1 to 5. \*

Scale: 1 = very rarely or never, 2 = quite rarely, 3 = occasionally, 4 = fairly often, 5 = very often or always

- Anger \*
- Disgust \*
- Fear \*
- Envy \*
- Joy \*
- Happiness \*
- Curiosity \*

### 9. ETHICAL LOAD

Respond to statements about ethical load based on your own experience. Rate the statements on a scale of 1 to 6. \*

Scale: 1 = Never, 2 = Less than once every six months, 3 = More than once every six months, 4 = Once a month, 5 = Once a week, 6 = Daily

How often do you not have time to treat the people you are working with as you think they should be treated? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you have to do something in your work that you feel is wrong? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you face conflicting demands in your work? \* 1-6

## Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you have to see people who are the subject of your work being insulted and / or harmed? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you avoid someone who needs support in your work? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you feel like you cannot meet other people's expectations of your work? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

Do you have to lower the requirements you set for a good job? \* 1-6

### Have you had a bad conscience about this?

- None
- Very little
- Little
- Some
- Quite a lot
- Very much

What has been the most ethically unsatisfactory situation in your current job? Describe related thoughts, emotions, people, etc. \*

## 10. LIFESTYLES, PRESENCE AND SLEEP

Have you experienced the need to change your lifestyle for health reasons during the past year (12 months)?

- Yes
- No

How many hours do you sit on average? Enter 0 if none. \*

- during the working day (hours)
- in free time (hours / day)

Do you think you sleep enough? \*

- Yes, almost always
- Yes, often

- Rarely or hardly ever
- I don't know

## How many hours a day do you usually sleep in 24 hours? \*

I sleep (hours) on average

#### 11. EXERCISE

The amount and quality of exercise affects brain health. The following questions are based on health sports recommendations. Think of the last three months (3 months).

Select all the options that correspond to your situation in sections 2 to 5, and indicate on the lines how much exercise you are doing (days in a week and minutes in total per week). If you do not exercise regularly at all on a weekly basis, select option 1.

- 1. Hardly any regular exercise every week
- 2. Slow and calm endurance exercise (= no sweating or shortness of breath, e.g. peaceful walking)
  - Days per week
  - Minutes per week
- 3. Rapid and vigorous endurance exercise (= some sweating and / or rapid breathing, e.g. brisk walking)
  - Days per week
  - Minutes per week
- 4. Intensive and strenuous endurance exercise (= intense sweating and / or rapid breathing, e.g. jogging or running)

Muscle fitness training (e.g. fitness circuit or gym training, where movements affecting different muscle groups are performed at least 8-12 times)

- Days per week
- Minutes per week
- 5. Exercises that develop balance training or other movement control (e.g., balance exercises on one foot, uneven surface, contagion position, etc., dance, tai chi, sports games, and racket and ball games)
  - Days per week
  - Minutes per week

### 12. NUTRITION

Food choices can affect brain health. The following questions map the overall diet in general terms.

# How often have you consumed the following foods and drinks in the last 7 days? \*

not once/ 1-2 days /3-5 days /6-7 days

- Fatty cheeses (e.g. Edam, Emmental, Oltermanni) \*
- Low-fat cheeses (e.g. Edam 17, Kadett 5%, Oltermanni 17, Polar 15, cottage cheese) \*
- Fish \*
- Fresh vegetables \*
- Cooked vegetables (no potatoes) \*
- Fruit and / or berries \*
- Savory and / or sweet pastries \*
- Sweets \*
- Candied beverages \*
- Wholemeal bread and / or porridge \*
- Nuts and / or seeds \*
- Vegetable oil or liquid vegetable oil preparation (e.g. Flora Culinesse) \*
- Butter or butter-vegetable oil mixture (e.g. Oivarine) \*
- margarine (e.g. Becel, Floora, Fairy)

#### 13. RECOVERY

During the day, different things raise our alertness and trigger a stress response. Stress is needed to get things done and work effectively. However, after a stress reaction, recovery should occur, which reduces the body's state of alertness. For example, sleep, nutrition, good physical condition, and work breaks contribute to recovery.

## Do you have a chance to recover, for example, to relax during the working day? \*

- Yes, almost always
- Yes, often
- Rarely or hardly ever
- I don't know

## Reflect on your usual working week. Do you think you are recovering enough in your free time? \*

- Yes, almost always
- Yes, often
- Rarely or hardly ever
- I don't know

## How often do you drink alcohol in the evenings to calm down? \*

- Never
- About once a month or less
- 2-4 times a month
- 2-3 times a week
- 4 times a week or more

## 14. RESOURCE FACTORS AT WORK

What factors increase y	our well-being at work?	*
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Appendix 2. Outline for a sample self-care coaching plan for educators

Please fill the self-care plan specifying in each field at least one activity or strategy that you could do. The idea is to develop a holistic plan that works for you as an individual.

SELF CARE PLAN				
Emotional- acknowledgment and experiencing different emotions (talking to people, acknowledging successes)	Physical- activities that give you energy and help you stay healthy			
Psychological-activities that help you disengaged with work (hobby, journaling electronic detox)	Spiritual/Mindfulness- includes reflec- tive practices (yoga, nature walks, church, re- flection with a friend)			
Relationships-sustain and develop sup- portive and diverse relationships (beyond workplace)	Workplace-activities that help you develop and excel in your role (training/LLL, peer sup- port, mentoring/supervision)			
Ideal situation- Visualise the most ideal situation that you would like to be in				
What can I change in my current situation?				
What can get in my way?				
How can I remove those barriers?				
Whom can I ask for help?				
What will my situation look like if I apply this plan?				