

ZEYNEP OLGUN PAMUK

MINDFULNESS AS AN INTERVENTION IN ENGLISH
TEACHERS' QUALITY MOTIVATION FOR LESSON
PREPARATION

A MASTER'S THESIS

BY

ZEYNEP OLGUN PAMUK

THE PROGRAM OF CURRICULUM AND INSTRUCTION

İHSAN DOĞRAMACI BILKENT UNIVERSITY
ANKARA

OCTOBER 2021

2021

Dedicated to Brahma Kumaris...

Mindfulness as an Intervention in English Teachers' Quality Motivation for Lesson
Preparation

The Graduate School of Education

of

İhsan Doğramacı Bilkent University

by

Zeynep Olgun Pamuk

In Partial Fulfilment of the Requirements for the Degree of

Master of Arts

in

Curriculum and Instruction

Ankara

IHSAN DOĞRAMACI BILKENT UNIVERSITY
GRADUATE SCHOOL OF EDUCATION

Mindfulness as an Intervention in English Teachers' Quality Motivation for Lesson
Preparation
Zeynep Olgun Pamuk
September 2021

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. Aikaterini Michou (Advisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. Jennie Farber Lane (Examining Committee Member)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Curriculum and Instruction.

Asst. Prof. Dr. Hilal Peker, Framingham State University (Examining Committee Member)

Approval of the Graduate School of Education

Prof. Dr. Orhan Arıkan (Director)

ABSTRACT**MINDFULNESS AS AN INTERVENTION IN ENGLISH TEACHERS' QUALITY
MOTIVATION FOR LESSON PREPARATION**

Zeynep Olgun Pamuk

M.A in Curriculum and Instruction

Advisor: Asst. Prof. Dr. Aikaterini Michou

October 2021

In this experimental study, an 8-minute mindfulness guided meditation which aimed to increase teachers' emotional well-being and help them connect to their genuine selves before they prepare their lesson plans was developed and implemented into an online platform for 50 English teachers living in Ankara, Turkey. While 25 of them were assigned to the to listen to the mindfulness guided meditation recording as the experiment group, the control group listened to a Ted Talks speech about the "growth mindset", before and after which the participants' controlled and autonomous motivations were measured through Comprehensive Relative Autonomy Index (C-RAI). The findings in the study revealed that the teachers' autonomous motivation levels were not affected by an 8-minute mindfulness guided meditation, although a decrease in both autonomous and controlled motivations was observed after the intervention for all the teachers in the control and the experiment groups. Also, the teachers' introjected, identified, and intrinsic motivations were found to be correlated with their gender, age, and workload.

Keywords: English language teaching, teacher motivation, teacher autonomy, Self-Determination Theory, mindfulness

ÖZET

FARKINDALIK MEDITASYONUNUN İNGİLİZCE ÖĞRETMENLERİNİN DERS HAZIRLAMA MOTİVASYONUNA ETKİSİ

Zeynep Olgun Pamuk

Eğitim Programları ve Öğretim Yüksek Lisans Programı

Danışman: Dr. Öğr. Üyesi Aikaterini Michou

Ekim 2021

Bu deneysel çalışmada, Türkiye, Ankara’da yaşayan 50 İngilizce öğretmenin duygusal iyi oluşunu artarmayı ve ders hazırlamaya başlamadan önce kendi özleriyle bağlantı kurduğunu hedefleyen 8 dakikalık bir güdümlü farkındalık meditasyonu hazırlanmış online bir platform aracılığıyla katılımcılara sunulmuştur. Bu öğretmenlerden 25’i deney grubunda olup güdümlü farkındalık meditasyonuna ait ses kaydını dinlerken kontrol grubu da “gelişim odaklı zihin” konusuna dair bir TED Talks konuşması dinlemişlerdir. Katılımcıların özerk motivasyonları Kapsamlı Göreceli Özerklik Endeksi (Relative Autonomy Index [C-RA]) ile ölçülmüştür. Çalışmanın sonuçları, öğretmenlerinin özerk motivasyonlarının 8 dakikalık güdümlü farkındalık meditasyonundan etkilenmediğini ancak deneyden sonra kontrol ve deney grubundaki tüm öğretmenlerin özerk ve kontrollü motivasyon seviyelerinde bir düşüş gözlemlendiğini göstermektedir. Ayrıca katılımcıların içe-dönük, tanımlı, ve içsel motivasyonlarının cinsiyet, yaş, ve haftalık iş yükü ile ilintili olduğu saptanmıştır.

Anahtar kelimeler: İngiliz dili eğitimi, öğretmen motivasyonu, öğretmen özerkliği, Özbelirlenim Teorisi, farkındalık

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my supervisor Assist. Prof. Dr. Aikaterini Michou. She is the one who made this thesis come into being. I remember how sincerely she welcomed me 3 years ago when I first went to her with the idea of this thesis. Her sincere welcome encouraged me that day, and since then she has supported me through thick and thin. I am wholeheartedly grateful and indebted to Dr. Michou for her meticulous and timely guidance, detailed and fast proof-reading, her constant positive reinforcement, and constructive feedback in every step of my work. Along with her, I would love to thank the jury members Jennie Lane and Hilal Peker for their invaluable time and precious comments that enhanced my thesis even further.

I also owe a great gratitude and majestic thanks to my dear husband Gökhan, my brothers Halil and Metin, my daughter Azra, my sisters Emel, Merve and Melis, my mom and dad. They have always been there for me no matter what, believing in me. As I always say, “I am the luckiest one in the world as I am blessed with all these amazing people around me!”

Last but not least, I would like to thank Brahma Kumaris (the world spiritual university) and all its trainers, seniors, and teachers, who have been training me to become the best version of me for the last 10 years. Without you, I would still be believing I am this temporary costume...

TABLE OF CONTENTS

ABSTRACT.....	iii
ÖZET.....	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES	ix
CHAPTER 1: INTRODUCTION	1
Background	2
Teacher Motivation from the Lens of Self-Determination Theory	3
Mindfulness	5
Problem	7
Purpose.....	8
Research Questions	9
Significance.....	10
Limitations	10
Definition of Key Terms	11
CHAPTER 2: REVIEW OF RELATED LITERATURE.....	13
Introduction	13
Teacher Quality of Motivation: With What is It Associated?.....	13
Mindfulness as a Personal Characteristic that Brings Us Closer to Our Surroundings and Ourselves	19
Mindfulness and Quality of Motivation.....	23
Mindfulness Interventions: Their Impact on People’s Well-being.....	24
CHAPTER 3: METHOD	33
Introduction.....	33

Research Design.....	33
Context	35
Participants.....	37
Instrumentation	41
Pre-test: Comprehensive Relative Autonomy Index (C-RAI)	41
Experimental Condition: A Guided Mindfulness Meditation	42
Placebo Control Condition: A Talk about Growth Mindset.....	44
Lesson Preparation	45
Post-test: Comprehensive Relative Autonomy Index (C-RAI).....	45
Data Collection Process	46
Methods of Data Analysis.....	47
CHAPTER 4: RESULTS	48
Introduction.....	48
Preliminary Findings.....	48
Major Findings	53
External Regulation.....	53
Negative Introjected Regulation.....	53
Positive Introjected Regulation	54
Identified Regulation	54
Intrinsic Regulation	54
Autonomous Motivation.....	55
Controlled Motivation	55
CHAPTER 5: DISCUSSION	56
Introduction.....	56
Overview of the Study	56

Discussion of Major Findings	58
Discussion of Further Findings	60
Implications for Practice	62
Implications for Further Research.....	63
Limitations	65
REFERENCES.....	67
APPENDICES	88
Appendix A: Ethics Committee Approval Form	88
Appendix B: Informed Consent Form	89
Appendix C: Demographic Survey	90
Appendix D: Pre-test - Comprehensive Relative Autonomy Index.....	91
Appendix E: Guided Mindfulness Motivation.....	92
Appendix F: ‘The Power of Yet’ by Prof. Carol Susan Dweck.....	93
Appendix G: Lesson Plan Preparation after the Condition.....	95
Appendix H: Post-test - Comprehensive Relative Autonomy Index	97

LIST OF TABLES

Table		Page
1.	Participant English Teachers	37
2.	Descriptive Statistics Regarding the Pre-test and Post-test Results for Both Groups.....	48
3	Experiment Group's Paired Samples <i>t</i> -Test Results.....	50
4	Control Group's Paired Samples <i>t</i> -Test Results.....	51
5	Bivariate Correlations among Some of the Measured Variables	52

CHAPTER 1: INTRODUCTION

Creating an efficient and successful teaching and learning environment is the aspiration of all educational institutions, being the need of students and request of teachers. To create this idyllic atmosphere, schools and administrations around the world are trying to enhance the physical conditions, such as the classrooms or the school yard, and organize various in-service training sessions, national and international seminars, and workshops for teachers. Teachers learn and use new techniques, and some of them pursue master's or doctoral degrees to become more competent in their jobs.

Within this framework, motivation stands as one of the key factors for teachers, managers, schools, and administrations to realize all the aforementioned activities and compositions, which eventually contribute to student achievement (Daniels, 2011; Steinmayr & Spinath, 2009) and creativity (Davies et al., 2014). According to research, there is a strong correlation between teacher and student motivation. That is, if teachers are highly engaged in their jobs, students are positively affected, and their learning enhances (Kalyar et al., 2018; Patrick et al., 2000). Therefore, improving teacher motivation contributes to generate the desired learning environment in a classroom setting. What creates teacher motivation is not a one-dimensional phenomenon. Research explains economic status and income are of great importance for teachers (Alam & Farid, 2011; Hildebrandt & Eom, 2011). Another important aspect is how well their institution is managed (Eyal & Roth, 2011). But these factors, to a high extent, are out of teacher's control. Is there any contributor to teacher motivation that can be monitored by the teacher herself? According to Brown et al. (2007), one's mindful state can boost the quality of her

motivation. Mindfulness is a state on which a teacher has control and can develop it for herself. In this sense, this study aims to test whether English teachers at tertiary level can improve the quality of their motivation by developing their mindfulness.

Background

In educational surroundings, motivational ingredients assist both teachers' and students' achievement a great deal (McLachlan & Hagger, 2010). Motivational aspects create engagement, that is "...the behavioral intensity and emotional quality of a person's active involvement during a task" (Reeve et al., 2004, p. 147). The relationship between engagement and motivation is not a one-way cognitive or affective transfer, and it seems to be a rather reciprocal process. According to Ryan and Deci (2000a), students who were identified as highly motivated learners were also found out to be more engaged while learning. Zyngier (2011), too, states that increased learner engagement can be achieved through motivation. Fredricks, Blumenfeld, & Paris (2004) consider school engagement to be the remedy of school alienation. Added to these, Skinner and Belmont (1993) have a parallel discourse, stating motivation is never single-acting, instead teacher behavior, motivation, and student/learner motivation are everlasting reciprocal interactions. These studies and Skinner and Belmont's (1993) discourse bring us to the belief that in a learning environment, teacher motivation is as important for effective learning as student motivation.

Teaching is accepted to be one of the most precious occupations in the world since the ability and power of teachers to shape the individual's way of thinking, learning experience and approach to life. Since teachers later make up the society, it can be concluded that they have a direct impact on the society and its future. As a

matter of fact, the source and the degree of motivation of the people who shape our society, and our future should be the concern of us all.

Teacher Motivation from the Lens of Self-Determination Theory

Self-Determination Theory (SDT) (Ryan & Deci, 2017) approaches motivation from the perspective of quality. SDT makes a clear distinction between autonomous and controlled motivation. While autonomous motivation comprises of the free-will and the choice of the person and therefore indicates an individual volition, controlled motivation involves taking an action due to a necessity or a pressure (Deci, 1971). For example, a teacher works hard in order to be appreciated by the administrators, to get promoted, or to attain job security. The reason for the teacher to work hard could also be avoiding negative feelings such as guilt, shame, or anxiety, feelings all associated with inner pressure. In short, controlled motivation stems not from positive, engaging feelings or motives but instead from feelings of conflict, pressure, and fear of inefficacy (Van den Broeck et al., 2010). On the other hand, a teacher who works hard because s/he finds her/his job engaging, enjoyable, and interesting simply has autonomous motivation as the root cause of motivation stems from inner positive feelings and free-will. According to SDT, autonomous and controlled motivation have different underlying regulatory processes which creates different experiences and behaviors (Gagne & Deci, 2005). SDT suggests both autonomous and controlled motivation are intentional, which means the person has a deliberate intention. In that sense, autonomous and controlled motivation are non-identical to amotivation, which means a lack of intention or motivation.

Now, we can focus closer on the teaching approach of teachers who are instigated by autonomous motivation. They are eager to promote student interest in the subject and the lesson, they respect what they are doing, have self-esteem in their

own skills and abilities and are open to reflect on their teaching and alter it as needed (Deci et al., 1991). Another advantage of autonomous motivation is found out by a research done by Hodgins et al. (1996). Their research puts forward that autonomous orientation provide people to be more tolerant, trustworthy, and open-hearted which are deemed to be important personal characteristics of a good teacher (Ida, 2017; Inan, 2014).

In contrast, when people have controlled motivation, they feel an external or internal pressure or a demand is pushing them to do a task (Koestner et al., 2008). Therefore, when teachers are motivated in a controlled way, they are usually less interested in students' needs and wants, and they do things rather to make other people satisfied, contented, or proud; or to avoid negative feelings they might get such as guilt or inadequacy, they lack self-esteem in their teaching skills and talents but still unwilling to make any necessary changes to improve things. Vansteenkiste and Ryan (2013) assert that controlled motivated people are less tactful when coping with stress and usually they are more defensive when criticized.

Nevertheless, what does it make teachers to be autonomous motivated? Regarding this issue, SDT touches upon the importance of psychological needs. It asserts people develop a good quality of motivation (autonomous motivation) when their psychological needs are satisfied. These psychological needs are the need for autonomy (a sense of freedom to choose and act according to someone's free-will), the need for competence (the feeling of efficiency) and the need for relatedness (a sense of love and affection someone gets from his/her beloved ones). A person who meets these needs sufficiently becomes adequate, complete, and healthy, whereas a person whose needs are thwarted feels alienated, deficient, and unhealthy (Vansteenkiste & Ryan, 2013).

In summary, when a person's psychological needs (need of autonomy, relatedness, and competence) are met, his/her autonomous motivation is created and sustained (Stone et al., 2009). There are various factors that help people meet their psychological needs, and one factor that researchers like to integrate recently into SDT is mindfulness, which is a mental state attained by concentrating on the present moment while accepting all inner thoughts, feelings, and sensations peacefully without judging them (Schonert-Reichl & Lawlor, 2010). Mindfulness has been linked to autonomous motivation and psychological and behavioral well-being of people (Ryan & Deci, 2008). They conclude that with the help of the present moment's awareness, a person starts to explore his/her inner self and come to realize his/her needs and feelings, which eventually leads to the person being more connected to his/her genuine self, thoughts, and feelings. This connection helps the person understand why s/he does what s/he does.

Mindfulness

The origin of mindfulness is believed to be rooted in ancient Hindu and Buddhist tradition. Mindfulness means having a complete attention on the moment and someone being aware of his/her somatic, mental, and social experience along with his/her feelings, sensations, mental images and thoughts while accepting them all without judgement (Brown & Ryan, 2003; Taylor et al., 2016). Hanh (1975/1999) describes mindfulness as "keeping one's consciousness alive to the present reality" (p. 11). Thera (1972) explains it as "the clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception" (p. 5). So far, numerous psychological, spiritual, and philosophical resources have mentioned the significance of quality of consciousness first to acquire and then to sustain the well-being and happiness of a person (Wilber, 2000). Yet few

studies have investigated the correlation between quality consciousness and well-being.

Consciousness is apart from other mental activities such as cognition, perception, and distinction (Averill, 1992; Mayer et al., 1997). Apart from the work done by the brain in perception and cognition, consciousness involves much broader activities of our inner world. It entails thoughts, motives, and emotions. Therefore, consciousness involves not only attention but also awareness. Awareness is like a screen constantly monitoring the outer world along with our feelings, thoughts, and sensations. Yet, a person can be aware of a feeling, an outer stimulant, or a thought without paying attention to them. Paying attention means bringing that awareness point into the very center of the mind and therefore making it conscious awareness. For this experience to occur heightened sensitivity to a limited range of experience is needed (Westen, 1999).

Where does mindfulness stand in the relation of awareness and attention? Mindfulness can be counted as the augmented attention and awareness going hand in hand and therefore producing a more intensified sensitivity of the experience of that give moment. However, there is here an important point which should not be missed out. In a mindful state, the whole experience is watched as a detached observer which means without loading or overlaying any judgements. Deikman (1982) and Martin (1997) expresses mindfulness as *open* or *receptive* awareness and attention. For example, when eating a raisin, if a person gives all his/her attention and awareness to the taste, texture, softness, and warmth of the raisin, and still not judge the experience as good or bad, this circumstance can be called as a mindful eating activity. There are certain elements that restrain mindfulness such as the mind wondering in the past memories or future prospective occasions or multitasking

when people occupy themselves with more than one task and are not able to channelize their awareness and attention into one thing to experience it to its fullest sense. Deci and Ryan (1980) add that compulsive and automatic behavior also threatens self-determined behavior as they are displayed without conscious awareness and attention.

SDT relates mindfulness with “self-controlled” behavior. When in a mindful state, a person’s behavior is shaped autonomously as the person makes his/her decisions according to his/her own free-will, interests and genuine values instead of following compelling drives. Therefore, it can be estimated that mindfulness can be a means for a teacher to be autonomous which will probably lead to his/her eagerness, self-respect and openness (Brown et al., 2007).

Problem

A teacher with a good quality of motivation embarks and fulfills their tasks with a sense of excitement and pleasure. The source of a good quality of motivation springs from within (intrinsic) without demanding any interpersonal or intrapersonal enforcement (Newes de Jesus & Lens, 2005). A number of studies say teacher quality of motivation is related to several variables such as self-efficacy (Bandura, 1993; Pennington, 1995). A teacher who feels they are skilled enough to perform their job is inclined to be more motivated. Autonomy also plays a key role for a teacher’s quality of motivation (Dickinson, 1995). If a teacher takes initiative in doing a task by their own volition, s/he does it more enthusiastically and willingly.

So far, a number of intervention programs have been applied to cover the basic needs of teacher and student motivation based on several contemporary motivation theories including SDT and many others (Lazowski & Hulleman, 2016). Despite these good intentioned initiatives, the ways to improve teacher quality of

motivation still remains a realm to be further studied, understood, and remediated since teachers are still experiencing tiredness, reluctance, and even burnout syndrome (Tsai et al., 2006).

Teachers who are living in a fast-paced world have to do many things at the same time. They have papers to mark, meetings to attend, lessons to prepare, students to supervise, exams to write, e-mails to reply, etc. This overloaded timetable is also valid for English teachers teaching at tertiary level. This overloaded schedule causes them to reside mentally either in the future (tasks that will be or should be done) or in the past (tasks that could have, should have been done in a different way). Eventually, they fail to interact with the present moment, and it makes them lose their attention and awareness of the moment. When they are not fully aware and attentive about the things going on now, they do not examine their real needs, wants, preferences or desires (Brown & Ryan, 2003). This state of mind could lead them to make decisions and take actions for the sake of obligations or to make other people happy or satisfied. A discontentment from the self might lead English teachers, therefore, to a poor quality of motivation with considerable consequences for their self-efficacy, well-being and, eventually, their teaching effectiveness.

Purpose

The purpose of the study is to test whether English teachers can improve their quality of motivation when they are exposed to an intervention of mindfulness. What quality of motivation here indicates is that teachers do their tasks with pure excitement and pleasure or out of personal importance instead of feeling obliged to do them, Levesque and Brown (2007) ascertained that a mindful nature implies more autonomous motivation when someone is making mindful daily decisions instead of performing automatic, non-self-governing actions.

Although the literature indicates (Davidson et al., 2003) that mindfulness needs to be practiced for some substantial amount of time (between 4 to 8 weeks) in order to transform people's well-being or quality motivation, I aimed to investigate whether even a short period of mindfulness intervention before a lesson preparation could make any significant difference on English teachers' quality of motivation. To accomplish this purpose, an experimental study was conducted to test to what extent mindfulness could affect teachers' quality of motivation while getting prepared for their classes. In other words, to what extent a teacher's motivation would be affected if they had the chance to be exposed for a short period of time to an experience during which they could connect to their genuine selves to observe their current feelings and thoughts yet not judge them or label them as "good" or "bad". The anticipated results of the study were that teachers would be more autonomously motivated to prepare for their classes after being exposed to the mindful guided meditation experience.

Research Questions

In this study, the research questions were stated as follows:

1. Does a short guided mindful meditation experience affect English teachers' quality of motivation?
 - a. Are there any statistically significant differences between teachers' quality of motivation before the short guided meditation intervention and after it?
 - b. Are there any statistically significant differences in quality of motivation between teachers in the experimental group and teachers in the control group after the short guided meditation intervention?

Significance

Although a great deal of research has been made to ascertain how teacher motivation can be improved to create a better teaching and learning environment (Brown et al., 2002; Cooper & Kelly, 1993; Dewe, 1986; Gordon, 2002; Pithers & Soden, 1998), few studies have been made on to what extent mindfulness may affect teacher motivation, if any at all. Furthermore, this study specifically focuses on whether a mindfulness intervention in which a teacher is exposed to just before their lesson preparation improve their quality of motivation. Therefore, this study first exploits if mindfulness activities help teachers to be more aware of the present moment and interrelatedly develop their quality of motivation while satisfying their basic psychological needs (competence, autonomy and relatedness). If so, the study will provide specific suggestions to teachers about how to improve their quality of motivation in teaching and their well-being. Institutions who are seeking different ways to support their teachers to foster their quality of motivation could also make use of this study. They can implement similar mindfulness intervention programs to promote their teachers' motivation. Motivated teachers are well engaged in their profession and dedicated to their students learning.

Limitations

In order to supply better reliability conditions, this study was first planned as a face-to-face workshop sequence. According to the first design, the experiment group would be exposed to a 4-week program, each session ending an hour. I was planning to give the workshop at my own institution. Participants would be assigned with some weekly tasks such as tracking their emotions, feelings and thoughts, listening to guided meditation commentaries regularly every day, and keeping diaries

about their progress. The control group would be exposed to a testing, evaluation and question writing training given by a trainer of ITI (International Training Institute).

However, due to covid-19 pandemic, most universities have gone online since March 2020. Therefore, it has been impossible for me to gather all the participants at the same venue. Eventually the content and the design of the intervention was reformulated according to the new standards and conditions of the participant teachers who were overloaded with several online obligations. Therefore, the intended 4-week intervention program which was also enriched with extra tasks and duties for the participants turned into 8-minute online guided meditation design. Therefore, the limited duration of the study can be counted as the biggest drawback of the study. Literature says the shortest intervention which deemed to create a statistically significant difference was an intensive 4-day long treatment (Song et al., 2020). It would also be the strength of the study if some of the participants could have been interviewed about the process in order to see the procedure, feelings they had gone through while learning about their experience from their own mouth by their own words. This kind of design would also create a change of triangulation for the study.

Definition of Key Terms

Mindfulness: Mindfulness is the focused attention to the moment-to-moment experience in a receptive and non-judgmental manner (Weinstein & Ryan, 2011).

Quality of motivation: Quality of motivation holds the premise that motivation isn't a quantitative framework, but rather it is a construct of quality. This quality can be attained by autonomous decisions, actions of a person. If the person's behaviors or choices are controlled, then the quality of motivation becomes a poor one. Therefore, when visualized on a linear scale, a good-quality motivation tends

towards autonomous orientation while a poor-quality motivation mostly refers to controlled motivation. (Ryan & Deci, 2000b; Vansteenkiste et al., 2006).

CHAPTER 2: REVIEW OF RELATED LITERATURE

Introduction

As this study aims to test to what extent mindfulness could affect teachers' quality of motivation while getting prepared for their classes, in this chapter, I will first shed light on the correlates of teachers' quality of motivation by exploring the relevant literature. Next, I will present the correlates of mindfulness as they have been reported in previous research and based on this evidence, I will argue that mindfulness can be also associated to a good quality of motivation. Lastly, I will present interventions to develop mindfulness to link them with my experiment where meditation was used to facilitate teachers' concentration on the present moment.

Teacher Quality of Motivation: With What is It Associated?

In order to carry out a study that aims to measure the impact of mindfulness on teacher's quality of motivation, it is important to lay the theoretical background clearly to show what factors a quality teacher motivation, which is autonomous motivation in the context of this study, is mostly associated with, and why the characteristics of a mindful behaviour can enhance autonomous motivated behaviours in teachers.

In their SDT model, Deci and Ryan (2008) explain that our behaviours, and therefore teachers' behaviours are driven by either autonomous or controlled motivation although some individuals could be also amotivated to exhibit particular behaviours showing an impersonal quality of motivation. When teachers satisfy three basic psychological needs, the need for autonomy (the urge to have the sense of

control in what a person is doing), the need for competence (the feeling of mastery and accomplishment on tasks that are personally important to person), and the need for relatedness (the feeling of belonging and being connected to others), they are more likely to develop an autonomous motivation in teaching (Deci & Ryan, 2008).

Autonomous motivation is the quality of motivation that is aimed teachers to achieve at the end of the current experiment, but it is also generally accepted as the ideal type of teacher motivation in several learning contexts. Teacher autonomy is a prerequisite of learner autonomy (Little, 1995), and teachers who are exposed to overcontrolled approaches from the authorities can neither develop an autonomous motivation nor perform autonomy-supportive behaviours towards their students (MacBeath, 2012). Grozidis and Papaioannou (2014) discovered that a teacher's autonomous motivation for taking part in research project could be a predictor of this teacher's future inclination to novelties in the classroom. Similarly, Kim et al. (2015), report that when pre-service teachers had higher autonomous motivation, they were observed to take part in more voluntary work for enjoyment. According to the findings of In de Wald et al. (2014) and Sørenbø et al. (2009), there is a correlation between teachers' enthusiasm for engaging in training activities and their intrinsic motivation for working in the design of these training activities. The study by Fernet et al. (2016) showed that beginner teachers' autonomous motivation was a positive predictor of commitment to the profession and learner participation, while also preventing burnout (Fernet et al., 2012). So, there seems to be negative correlation between autonomous motivation and burnout.

In this regard, teachers whose motivation levels are closer to the autonomous orientation could be observed to portray more energetic behaviours, and a curious and reactive approach which enables them to analyse all types of positive and

negative responses from their learners' as valuable feedback rather than intimidation (Weinstein et al., 2010). Furthermore, Abos et al. (2018) describes autonomous teacher behaviour as being:

... more likely to adopt an autonomy-supportive style (e.g., listen to students' voices and preferences), and create a warm (e.g., being caring towards the students) and task-oriented learning environment. (e.g., focusing on learning) (p. 23)

Alternatively, teachers with high levels of controlled orientation mostly aim at proving themselves and keeping a high profile in the eyes of others (Nicholls, 1984; Ryan, 1982). Roth (2014) claims that these teachers usually tend to build classroom contexts where ego is in the foreground, allowing competition and comparison between individual students instead of an attention of the process of learning. Again, Abos et al. (2018) states:

Because controlled motivated teachers experience more pressure to teach, they may have a less open view, and less available energy to acknowledge the students' perspectives (i.e., low on autonomy support), or to show warmth and concern (i.e., low on relatedness support). (p. 23)

Finally, according to Abos et al. (2018), amotivated teachers are expected to do a task in an automatic pilot mode which means they are deprived of the energy and enthusiasm they need to spice their lessons with high-quality, engaging, and interesting activities and interaction patterns. The reason for this is that they do not anticipate any affirmative outcomes from their endeavor. Therefore, their tendency is to do activities which require the least zest and passion from them.

There are a number of studies that centralize teacher motivation from the point of view of the SDT. A study done by Wang and Liu (2008) sought to analyze the motivation of pre-service teachers in Singapore, how they perceive National Educational program, their perceived competence to teach the program, and their feelings about it. The participants were 4242 pre-service teachers, and cluster analysis method was used to interpret the data collected from these student-teachers through the Academic Self-Regulation Questionnaire (SRQ-A) adapted from Ryan and Connell (1989). The results of the research suggested that Singaporean pre-service teachers' motivation to teach National Educational program corresponded to intrinsic motivation and identified regulation. Also, the researchers found a strong positive correlation between the student-teachers' self-determined regulations and their levels of self-confidence to teach the program. According to the cluster analysis results, teachers with different behavioral regulations perceived their satisfaction levels differently. Namely, the cluster of highly amotivated teachers and the clusters of highly externally regulated teachers might have portrayed similar levels of satisfaction, but these levels were very distinctive for how they perceived the National Educational program and how confident they felt about it. Lastly, the researchers concluded that to motivate these teachers further, teacher education programs should target instilling a powerful sense of belonging and acknowledgment of national heritage, along with providing teachers with the decision of whether to teach the National Education program or not.

Sørenbø et al. (2009) also carried out a study on e-learning competence using the model of extended information systems continuance to test whether participant teachers' extrinsic or intrinsic motivation and expectations are related to their perceived levels of autonomy, competence, and relatedness satisfaction. Their

findings from 430 teachers from 12 different colleges revealed that teachers' perceived level of e-learning competence was aligned with their pre-acceptance expectation, usefulness belief development, and the development of intrinsic motivation towards e-learning, which proves the significance of training and support provision for e-learning technologies. According to the researchers, the most important practical implication of the study is that people in charge of e-learning facilities in institutions must aim at creating various opportunities to develop e-learning competence to boost among other teachers' quality of motivation.

Additionally, Kaplan and Madjar (2017) carried out research to understand pre-service teachers' professional development conceptions in the sense of certain motivational outcomes. They collected data from 308 pre-service teachers studying at an Israeli teachers' college in a multicultural context of Bedouin and Jewish participants through a survey targeted to understand their sense of basic psychological need support, autonomous and controlled motivation, self-accomplishment, engagement, self-exploration, and emotional exhaustion. The findings of the study showed that need support was positively correlated with autonomy, relatedness, and competence satisfaction while autonomous motivation was positively correlated with accomplishment, engagement, and exploration. Competence had a positive correlation with engagement and a negative one with emotional exhaustion. Finally, relatedness was correlated with engagement for Bedouin student-teachers and with self-accomplishment for Jewish teacher candidates.

Pelletier et al. (2002) conducted another study to scrutinize the social-contextual parameters that caused teachers (254 teachers from the province of Quebec teaching Grades between 1 and 12) to act more autonomy supportive or

more controlling towards their students. They measured teacher quality of motivation, their perception of students' motivation and the perceived constraints at the workplace. The results of the study revealed that teachers were inclined to act with a more self-determined motivation towards their job when they perceived less pressure from work (pressure created from the need to fulfil an expected performance rate concerning the school tasks). Furthermore, they tended to become more self-determined to their work once they perceived their students as more self-determined towards their school, and this increased in self-determined motivation towards to job caused them to portray more autonomy supportive behaviors with their students.

Gorozidis and Papaioannou's (2014) study also used the SDT in a mixed-method research to measure the motivation of 218 high school teachers from Greece for taking part in a research project. For collecting quantitative data, the Work Task Motivation Scale for Teachers was used twice to assess the participants' motivation to take part in professional training activities and this specific project, and another two-item scale was applied to measure their intentions to take part in future training activities. Also, qualitative data was collected through two open-ended questions and four written interviews to understand teachers' motivation for participating in the research project. The results indicated that most of the teachers (69%) participated in the project with intrinsic regulation and nearly one third of them (34%) tended to act with identified regulation, which pointed to a strong presence of autonomous orientation. On the flipside, only 5% of the participants seemed to have introjected regulation and a considerable 25% of them had external motivation, which constituted a less strong presence for control motivation towards taking part in this

training activity. So, the participants' autonomous motivation for the projects was a positive predictor of their future professional development activities.

These studies indicate, among others, that teacher quality of motivation seems to be facilitated when teacher need for autonomy, competence and relatedness are satisfied. However, apart from the institutions' efforts to boost teachers' autonomous motivation, there seems to be no research on any personal quality that facilitate teachers to enjoy their job and find it valuable, that is to develop autonomous motivation. As research has shown that mindfulness enhances a concentration on psychological needs and promotes autonomy as a positive predictor of well-being, (Brown & Ryan, 2003; Brown et al., 2007; Shaphiro & Schwarz, 2000), I argue that developing EFL teachers' mindfulness will also promote their autonomous motivation towards teaching.

Mindfulness as a Personal Characteristic that Brings Us Closer to Our Surroundings and Ourselves

Most Mindfulness has been investigated as a personal attribute that support a set of positive attitudes towards our surroundings or ourselves. For example, Wamsler and Brink's (2018) exploratory study indicates that people with dispositional mindfulness are more motivated to take or support actions related to the environment. Today, many scholars agree that environmental risks can't be eliminated solely depending on new technology and governance, instead sustainability should become a cultural concern of sensible, attentive people with high awareness stage (Edwards, 2015; O'Brien & Hochachka, 2011).

The perils of new technologies, globalization, system of inequalities and unsustainable consumption can be avoided with the help of people who care and nurture the nature. Actually, current studies in the field of neuroscience and

neuroplasticity (Doty, 2016; Goleman & Davidson, 2017), psychiatry (Hölzel et al., 2011), (eco)psychology (Koger, 2015) claim that the cultural and individual readiness of people to protect the environment can be reached with the help of mindfulness. Similarly, Amel et al. (2009) suggests that people who don't exhibit their daily behaviours automatically, namely mindful people have a better quality motivation to care and nurture the environment (Barbaro & Pickett, 2016).

Additional research show that mindfulness training motivates people to sustain their physical activity in the short (Gilbert & Waltz, 2010) and long term (Salmon et al., 2010). To illustrate, an overweight or an obese person who is practicing mindfulness and doing physical exercise intensely is likely to tolerate the pain, fatigue and exertion more since mindful awareness aids them to reinforce acceptance of unpleasant and distracting feelings, thoughts and sensations which may occur in their physical training (Schneider et al., 2019).

On the other hand, a study carried out with unemployed people hypothesized that after being exposed to a mindfulness training program, jobless people would have a stronger motivation to look for a new job (de Jong et al., 2013). Although their motivation to find a job did not change drastically after the mindfulness training program, it was figured out that the stress level of the participants reduced sharply and their job finding self-efficacy improved.

In addition to these inferences, Weinstein et al. (2009) found that, as mindfulness invites people to be more aware of the moment and therefore be more attentive about the present moment (Brown & Ryan, 2003), it allows people to strip down to their actual selves (awareness of themselves) and become who they actually are. If this self-awareness and self-regulation is considered in the context of work, people can be guided to make conscious decisions to engage more into their tasks

related to their work and therefore make more meaning in what they are doing while they improve their concentration. As Kahn (1990) suggests quality of motivation and the way how people reflect themselves in their working settings are closely related. All in all, it can be concluded that authentic functioning is well promoted with the help of mindfulness activities.

According to a Gallup employee survey held in 142 countries, 63 percent of employees lack motivation and are not eager to pay any extra discretionary effort for their jobs or workplace (Crabtree, 2013). One way suggested to overcome this issue by Piccolo and Colquitt (2006) is by good leaders who can improve employee's intrinsic motivation by their ability to create a meaningful and ingenious work environment. Transformational leaders can be good examples to create that kind of atmosphere. Transformational leaders "integrate creative insight, persistence and energy, intuition and sensitivity to the needs of others" (Bass & Avolio, 1993, p. 112). Transformational leaders are good role models for their employees/followers with their charismatic vision, their exemplary behavior, challenging the ideas and beliefs of the people they are working with and being deeply involved in the needs and wants of them (Bass & Stogdill, 1990). These positive behaviors not only inspire and help workers do extra tasks or take extra responsibilities (or other quantitative aspects of their main tasks) but also help them find meaning to the work they perform by internalizing with their selves and rationalize what they do and therefore have a more positive attitude to whatever they do (qualitative aspects of their tasks or in other words autonomous motivation) (Cerasoli et al., 2014). However, transformational leaders are not always easy to find (Zhao et al., 2016). Kroon et al. (2017) found out that mindfulness can partly substitute for the low levels of transformational leadership since it helps the employees to improve their intrinsic

motivation. Mindful workers constantly check and observe their inner emotions, sensations, experience and thoughts without judging, evaluating or analyzing them. This “detached observer” mode enables them to be stronger and durable to negative feelings they might encounter in the face of failure, problems or conflicts (Brown & Ryan, 2003).

Mindfulness can also have a key role in safety performance. Some jobs require do-or-die tasks within since a simple slip or mistake in a task may cause fatal outcomes. For instance, in a research whose sample consists of 135 Chinese nuclear power plant operators, it turned out that mindfulness corresponds with task complexity and therefore influence the quality of a life-or-death task (Zhang et al., 2013).

A qualitative study applied with a group of caregivers who were exposed to a web-based online mindfulness program revealed that they liked the moments that were only for themselves. They added the mindfulness training also improved their relationship with the patients as mindfulness helped them to practice being more in the present moment and acknowledging both their own and their patients’ needs (Kubo et al., 2018).

After working with a musician, artist and a horticulturist, Wright et al. (2006) inscribed that mindfulness helps those artists to see the positive sides of life and this elevated spirit empowers their autonomous motivation and their work capacity.

All in all, it appears that mindfulness is related to a set of positive outcomes through intrinsic motivation such as caring for the nature and the environment, sustaining physical activity, being more eager to cope up with problems (e.g., unemployment), function more authentically, having a more positive attitude towards whatever we are doing, being more resistant in the face of negative feelings, and

having improved relationships with people in our immediate circles (e.g., colleagues, clients, students), and therefore I expect that, by developing EFL teachers mindfulness, a good quality of motivation can be also promoted. Specific arguments about this expectation are provided below.

Mindfulness and Quality of Motivation

Mindfulness is the condition of deliberately and consciously watching what is happening around paying attention to the outer stimuli or experiences and our internal feelings about those. In this respect, mindfulness is an important component of the mechanisms that help individuals have better interpretations of themselves to reflect and understand better. According to Deci and Ryan (1985), such a level of self-awareness is indispensable for instilling autonomous motivation. This means that “one can only be highly autonomous when one is clearly aware of one’s values and goals, and thus is able to engage in behaviours that are congruent with one’s true self, free from external pressures or internal distortions or judgments” (Schultz & Ryan, 2015, p. 85). Schultz and Ryan (2015) mention two different roles of mindfulness that pave the way for autonomous motivation. Mindfulness de-automatization and integration because it might be observed to lower the frequency of behaviours that are automatic and maladaptive. The mindful state which enables a person to focus on the narrow circle of what is happening around and avoiding judgment and evaluation, might help become free of the constraints placed by automated, mechanic behaviours urging the brain to think about the real motives behind actions, which means self-confirmed, autonomous action (Brown et al., 2007).

Schultz and Ryan (2015) also emphasize a liberating role of mindfulness as a mindful brain is aware of and free from the influences sanctioned by both internal and external dynamisms that are not known to the authentic self (Brown et al., 2007). Hodgins and Knee (2002) quote that “individuals who are functioning autonomously...are responsive to reality rather than directed by ego-invested preconceived notions” (p. 89). Therefore, it is ideal for a person to perceive the true nature of states and events free from the manipulative conceptions created by the ego-centric point of view.

Mindfulness Interventions: Their Impact on People’s Well-being

Mindfulness is told to be an innate skill that all people have from birth (Brown & Ryan, 2003). However, modern life is preventing us to realize this trait. Research suggests, it can be improved via some techniques such as mindfulness training, mindfulness intervention or mindfulness meditation exercises (Grossenbacher & Quaglia, 2017). In the last three decades, more and more interventions are being applied to show and prove how helpful mindfulness can be for people’s psychology, well-being and motivation.

A study was carried out by Joyce et al. (2019) with full-time firefighters. This study is significant since it is the first cluster randomized controlled trial to test whether an entirely online mindfulness training program can improve psychological resilience of fire fighters or not. The findings show that the intervention program enhanced the fire-fighters ability to adjust to adverse circumstances and therefore improved their ability of resilience. This study can stand as a preliminary examination to improve their resilience for people who have high-risk jobs such as doctors, paramedics, police, defence personnel, midwives etc. The intervention comprised of 6 online training sessions. Each session took around 20-25 minutes to

finish. Interactive exercises, audio, and animation was used to foster the participants' resilience skills. Participants were asked to use the tablets provided to them at their stations and for further practice, they were free to download mindfulness tracks to their own phones or tablets. After the participants finished one session, the other session would be open for their use sequentially. Between each session, there was a 3-day-break so that participants can practice and internalize what they have learned. If the participants were willing, they were further fed by text messages or e-mail reminders. Several mindfulness tracks used in the study are mindful breathing, mindful body scan, loving-kindness practice, compassion focused mindfulness, and gratitude practice. There have been quite a number of other studies which indicate online applications improve people's mindfulness (e.g.; Bostock et. al., 2018; Lindsay et al., 2019).

Another mindfulness study conducted at Zurich University shows that a mindfulness intervention which lasted 8 consecutive weeks (each time for 2 hours) enhanced the participants' (from various job branches) well-being, reduced their stress level and increased their job satisfaction (the observable effect lasted for up to 6 months) and their task performance (it lasted short after the intervention, though) (Pang & Ruch, 2019). The content of the intervention was based on three main resources which were Kabat-Zinn's (1990) and Nhat Hanh's (1975/1999) works on mindfulness and Peterson and Seligman's (2004) character strengths research. The interventions started with an opening meditation, later a group discussion to remember and review the previous session and homework, later a theoretical input session with new ideas and practices were introduced to the participants. The program later continued with an exercise of mindfulness or character strengths (or sometimes its combination) and a consecutive interrogation. Lastly, the program

would end with a closing meditation with strength Gatha, which are short verses to help people remember and practice mindfulness in their daily activities (Niemiec, 2014).

Kabat-Zinn's 8-week mindfulness-based stress reduction program (MBSR) on 22 medical patients revealed that (Miller et al., 1995) the subjects anxiety level dropped after they were exposed to the program. When the participants were questioned on the effectiveness of the intervention after three months, they noted they have a better control over their anxiety related feelings after the intervention. Another follow-up was applied to the subjects after 3 years, among the original 22 subjects, data was collected from 18 participants, and they reported that the gains which were obtained from the intervention were still affecting their lives in a positive way.

There are several studies that utilise mindfulness intervention with teachers from different contexts. In Matiz et al. (2020) study, for example, a sample of Italian female schoolteachers were exposed to an 8-week Mindfulness-Oriented Meditation (MOM) training. The program started one month before the start of the COVID-19 lockdown as a preventive measure, and it lasted one month after the lockdown. The reason why they chose the sample group to be consisted by females is that women were reportedly more inclined to feel stressed, anxious, or depressed. The group had two group meetings and six individual video-lessons. Participants' level of mindfulness skills, personality profiles, psychological well-being, interoceptive awareness, burnout levels, emotional distress were measured before the study. Based on the results, two groups emerged, which were low-resilient and high-resilient groups. After the participants fully completed their mindfulness training program,

even the low resilient group's results showed that the participants' well-being and resilience, despite the pandemic, have grown remarkably.

Similarly, in another study conducted by Mackenzie et al. (2020), eighty teachers and other school staff were exposed to an 8-week mindfulness training. This study was a mixed study approach; participants were observed by pre- and post-test scales along with focus groups and individual exit interviews. Volunteer teachers answered semi-structured and open-ended questions. The pre- and the post-test involved questions about mindfulness, occupational burnout, work-related stress, and the professional quality of life. The results of the study showed that cultivating mindfulness practices into their classroom environment helped the teachers to stop, pause, and slow down. Most of the teachers denoted that simply the act of slowing down came with relaxation and the ability to reflect on themselves and their teaching process. Participants acknowledged changes not only in their teaching and themselves, but also in their classroom environment, as well. They declared they were not rushing their lessons anymore, and more respectful to things that were not going well or anticipated in the classroom such as student side talk. They also mentioned slowing down enabled them to be kinder and more empathetic and less reactive and more responsive towards their students. Teachers admitted that the change in their manner created a better communication with their students and their relationship and understanding towards each other improved. The findings of the study support the notion that mindfulness allows teachers to tackle with daily challenges of teaching more efficiently for the benefit of not only the teacher but also the students.

For some people, on the other hand, an 8-week mindfulness training may not seem feasible and economically sustainable. A group of researchers who shared this very belief conducted a 4-day mindfulness intervention (Song et al., 2020) to see whether an intensive program which only lasts 4 days can still be effective for teachers to help them reduce their stress level. There were 161 participants in total. Teachers were assigned to either the mindfulness or the waitlist group. The ones who joined the mindfulness group met four days each from 9 am to 5 pm with a two-hour noon rest. They were exposed to a program which was based on practical, hands-on mindfulness activities such as body scan, mindful eating, and sitting meditation. Participants were trained by two qualified mindfulness teachers who held degrees of mindfulness training from Kabat-Zinn's MBSR program and had experience of more than 1000 hours of mindfulness meditation experience. Perhaps, it would be remarkable here to state that the third day was allocated to a silent retreat day. Results showed that after 4 days of intensive mindfulness training, the mindfulness group who were formerly victims of mental and occupational distress were able to improve their mindfulness skills dramatically while they decreased negative affect and stress.

However, there are other studies showing the duration of the mindfulness training mattered. In a study held in China (Li et al., 2020), researchers hypothesized that when and if pre-service teachers were exposed to even a 10-minute mindfulness intervention, their attitude towards their prospective students with special needs such as autistic ones would enhance. Eighty-one Chinese students studying in various undergraduate teacher training programs such as mathematics, science, and English language were assigned randomly either to the experiment group which listened to a 10-minute mindfulness intervention, or the control group which listened to an

excerpt about Mai Po Nature Reserve in Hong Kong. The results exhibited that the short mindfulness meditation intervention did not affect the participants' overall attitude towards students with special needs. However, the study revealed that the participant's level of need satisfaction improved. The researchers attributed this result to Schultz and Ryan's (2015) earlier claim that mindfulness may play a key role for someone to fulfil their psychological needs since mindful people are less controlled and more autonomous and more connected to their inner values and needs. If the correlation between mindfulness and basic psychological needs required to be elaborated, non-defensive awareness which is a key term in mindfulness can fulfil the need for autonomy (Bond et al., 2013), taking goal-directed actions at the present moment instead of being in a dilemma can fulfil the need for competence (Bond et al., 2013) and lastly being responsive instead of giving automatic reactions can fulfil the need of relatedness (Carson et al., 2004).

Another study conducted by Graham and Truscott (2020) sought if a contemplative program such as meditation or mindfulness training, which is embedded to the school curriculum and primarily designed for students, might benefit the wellbeing of both students and teachers reciprocally. Initially, 12 Catholic primary schools in New South Wales, Australia, were chosen for this experiment, and data was collected for more than three years. The data collection from all participants could not take place since some schools or teachers could not sustain the program over the course of the study. Throughout the study, a range of methods such as semi-structured interviews with participating students' teachers and student focus groups were used to collect data. Teacher interviews showed that teachers agreed on the idea that mindfulness enabled the students in their classrooms to be calmer, and they developed a renewed personal calmness which implemented a better and more

understanding classroom cohesion. The results driven from student focus groups (114 students aged 10-11 years old) indicate that regular practice of meditation in the classroom affected not only their emotional state but also their social interactions which are two crucial aspects for their emotional and social wellbeing. Another important point that needs to be mentioned is that when contemplative programs are sustained regularly, their effects grow bigger. For instance, students who practiced mindfulness or meditation regularly for some years were observed to be improving both their personal and social skills.

Di Carlo et al. (2019) conducted research to evaluate if mindfulness practices could help to enhance a positive classroom environment and help early childhood teachers to cope with their perceived stress easier. The participants of the study were 3 early childhood teachers. They were selected among eight other candidates based on to their perceived stress level. To assess teachers' perceived stress level, the Perceived Stress Scale (PSS), which is a self-evaluation report measure for participants to scale their stress level (Cohen et al., 1983), was used. The chosen participants' perceived stress level indicated high and moderate stress levels according to the PSS. In the mindfulness training program, participants did yoga poses, intentional breathing, and guided meditation for two weeks. These activities were applied on school days when they arrived at school, mid-morning, at lunch, in mid-afternoon, and after-school. Each activity lasted between 1 to 2 or 3 to 5 minutes. The results of the study revealed that mindfulness affected all three teacher's classroom environments in a positive way. Two teachers' perceived stress level was also reduced after the study, while one teacher's perceived stress level increased. The researchers explained this unanticipated outcome could have been due

to any simple change in the teacher's life such as moving to another class or some extra new work to be covered by her.

In another study conducted by Hirshberg et al. (2020), 88 pre-service teachers (31 control and 57 experiment) from a top-level elementary education pre-service teacher education program were randomly assigned either to a standard teacher education program or the same program accompanied with a 9-week mindfulness-based intervention. Classroom Assessment Scoring System (CLASS), which brings three higher-order classroom domains together (Pianta & Hamre, 2009) was used to evaluate data. These were instructional supports, emotional supports, and classroom organization, and Hirshberg et al. (2020) emphasizes that this system "conceptualizes effectiveness not simply by observable behaviors but primarily through the quality of interaction a behavior inspires" (p. 2). CLASS was the means to evaluate the participants' effective teaching practices, and a 6-month follow-up was applied to see the sustenance of their behavior. Eventually, although no significant differences were observed between the control and experimental groups in terms of their well-being or negative affect reduction, significant differences in terms of instructional and emotional supports and classroom organization in favor of the intervention group were observed.

Also, in Mihić, et al.'s (2020) study, which was held within Croatian context, researchers' aim was to see whether a mindfulness-based intervention could promote teacher's emotional and social competencies and well-being, and improve their classroom interactions. For this aim, the experiment group was exposed to a program called CARE (Cultivating Awareness and Resilience in Education) which is a specifically designed program for teachers to promote their social and emotional competences (Jennings et al., 2017). Participants' mindfulness, burnout, self-

compassion, and compassion were evaluated through self-report measures along with their heart rate and blood pressure before and after the intervention. The results of the post-test showed that the intervention had a statistically significant positive change on the experimental group's self-compassion and its two subscales which are humanity and mindfulness. On the other self-report measures, there were no significant changes observed, though. At the follow-up, experiment group participants' degree of self-compassion, self-observation, and mindfulness were significantly higher than the control group. No significant changes were spotted related to burnout measures. Regarding the participants' cardiovascular measures in the post-test, it was figured out that CARE participants' heart rates were significantly lower than the control group's heart rates of. No significant intervention impacts were diagnosed regarding the blood pressures in the post-test, though.

Finally, an experimental study (Berkovich-Ohana et al., 2020) conducted in Israel used 39 Arab elementary school teachers from two Arab elementary schools as participants. During the intervention, while the experiment group was undergoing a mindfulness-based intervention (MBI) course of 30 hours for three months, the control group underwent a cognitive intervention of 30 hours for six months. In the pre- and post-test, the experimental group completed mindfulness, decentering, stress, and emotion regulation surveys. The results showed that only the group which was exposed to the MBI condition showed an increase in three mindfulness subscales (acting in awareness, observance, and non-reactivity), in adaptive emotion regulation (the ability to adopt new circumstances), in decentering (a state of objective, non-judging being) and a decrease in stress.

CHAPTER 3: METHOD

Introduction

The purpose of the study was to test whether English teachers can improve their quality of motivation when they are exposed to meditation. In this regard, an experimental research design was applied. In this chapter, I described in detail the research design and the context where the study was conducted with a view to understand the sample that was recruited and the conditions that shaped the data collection process. I explained the data collection instruments, too, with their purpose of use. Finally, I described the process of how the data was collected and analyzed, along with the ratio behind the analysis methods.

Research Design

This The main research question that shaped the particular research design was as follows:

1. Does a guided mindful meditation experience affect English teachers' quality of motivation?

And the sub-research questions were:

- a. Are there any statistically significant differences between teachers' quality of motivation before the guided meditation intervention and after it?
- b. Are there any statistically significant differences between the experimental and control groups' quality of motivation after the intervention?

As the study sought an “impact” of mindful meditation on teachers’ quality of motivation, an experimental design was selected. The experimental design measures the probable cause and effect relationship between independent variables and dependent variables in a research study (Creswell, 2014). According to Cash et al. (2016, p. 50), an experiment is the “purest” form of scientific approach. Foster and Parker (1995) define experimental research design as an arrangement where the researcher targets certain independent variables, has their control, and exploits their degrees in a systematic way in order to see how different conditions will have what kind of effects on the dependent variables. To calculate the degree of this change and to see the statistical significance paused at the end of the experiment, researchers usually apply pre-tests and post-tests that are carried out to understand the nature of the dependent variable before and after the experiment to look for a possible change, which might have been caused by the controlled or independent variable (Liu et al., 2009).

In the general sense, experimental studies could be divided into two general subgroups, which are true experimental research designs and quasi experimental research designs. According to Creswell (2003), in a true experiment, the participants are placed into the treatment groups (i.e., the experiment group and the control group) randomly by the researcher. Also, Sharma et al. (2020) argue that an experiment needs to meet three important conditions to be considered a true experimental study: manipulation of an independent variable, control of certain variables, and random assignment of participants into experiment and control groups. As the current research complies with these criteria, it can be identified as a true between-subjects experimental research design that was mainly built on quantitative data. Moreover, to avoid any placebo effect in the treatment condition, that is

improvements on the dependent variable because of participants expectations from the treatment condition, in the present study, I used a placebo control condition. This means that the participants in the control group also received a treatment which, however, was irrelevant of the independent variable.

Context

The research was held in the context of teaching English as a Foreign language in Turkey with teachers from primary, secondary, and higher education levels. In the Turkish context, the mandatory education is given in 12 years with a 4+4+4 system that includes four years of first level primary education, four years of second level primary education, and 4 years of secondary education. Primary education targets the education of children aged between 6 and 14. It is mandatory for all children in this age range, and it is offered completely free in public schools. The Ministry of National Education regulates the teaching of foreign languages. According to these regulations, foreign language education starts at the fourth grade, and the language that is usually included in the curricula is English, while French, German, or Spanish can be taught rather than English by some schools. Besides, this foreign language education continues in the secondary level, and a second mandatory foreign language along with English can be included in the curriculum of the school with the approval of the Council. It is also possible to support these mandatory foreign language lessons with additional elective foreign language lessons in accordance with the type of the school and the number of class hours (Oktay, 2015).

In the higher education context, foreign language education regulations are administered by the Higher Education Council and the senate of each state or private university. Universities offer some undergraduate and graduate programs that have English as the medium of instruction either completely or partially. Students who got

into a faculty after taking the national university entrance exam first sit an English proficiency exam prepared by the responsible faculty of the university, which is mostly a school of foreign languages, a department of basic English, or an English preparatory school. Students who get the required minimum grade from this proficiency exam proceed to their departments, whereas those failing are placed into one of the programs in the prep school in accordance with their current levels, which are determined either with their grade from the proficiency exam or with a placement test that is administered additionally. Students can also prove their proficiency by taking one of the high-stakes English exams such as Test of English as a Foreign Language Internet Based Test (TOEFL), International English Language Testing System (IELTS), or Pearson Test of English Academic (PTE) and documenting their scores that meet the equivalency rates specified by the university. In a whole year of English education, these students continue to study until they complete at least a B2 level (CEFR) (Common European Framework of Reference) and take the proficiency test again at the end of the academic year, sometimes during a summer school, and also at the beginning of the next academic year. If they succeed, they join their peers in the departments, and if not, they have to spend one more year at the prep school. This is their last chance, and if they fail their second year, they will have to be appointed to another equivalent of the same program where the medium of instruction is Turkish. Different universities (especially private / foundational ones) might have different applications in terms of the length and administration of the levels/program, the content of the proficiency test, the choice of instructional approach and materials, and the distribution of assessment components such as exams, portfolio, and term projects.

Participants

To find participants for this study, I used a rather nonrandomized, non-probability sampling as I first chose teachers who were of in a circle of access for convenience reasons (Daniel, 2012). Specifically, I applied snowball sampling method to reach the potential participants in the current research. Polit-O'Hara and Beck (2006) define this method, also calling it the "chain method", as the sampling process during which the researcher contacts the first few participants through convenience sampling choosing them from their immediate circle, and later asking this chosen group to find other people with similar backgrounds, conditions, and experiences.

The participants were all teachers of English who are teaching English as a foreign language in Turkey in the contexts of primary school, secondary school, and higher education. In total, 84 teachers ($N=84$) took part in the study, but in the end, only 50 of them ($N=50$) were considered actual samples (Table 1) as the remaining 34 were detected not to have engaged with the intervention process as anticipated by the researcher. Therefore, I decided to carry out the analysis excluding these non-participating samples to achieve more reliable results.

Table 1

Participant English Teachers

Measured Variables	<i>n</i>	%
Group		
Control group	25	50
Experiment group	25	50
Total	50	100
Gender		
Male	9	18
Female	40	80
Prefer not to state	1	2
Total	50	100

Table 1 (cont'd)*Participant English Teachers*

Measured Variables	<i>n</i>	%
Age		
Younger than 25	4	8
25 - 30	4	8
31 - 35	12	24
36 - 40	15	30
41 - 45	10	20
46 or over	5	10
Total	50	100
Institution		
State/governmental	21	42
Private/foundational	29	58
Total	50	100
Context/students		
Primary School	1	2
Secondary School	4	8
High School	1	2
University/college	44	88
Total	50	100
Experience		
Less than a year:	1	2
1 - 5 year(s)	6	12
6 - 10 years	7	14
11 - 15 years	19	38
16 - 20 years	12	24
21 years or over	5	10
Total	50	100
Education		
Bachelor's degree	19	38
Master's degree	23	46
Doctoral degree	8	16
Total	50	100
Weekly workload		
4 - 8 hours	8	16
9 - 15 hours	21	42
16 - 25 hours	17	34
26 hours or more	4	8
Total	50	100

Table 1 (cont'd)*Participant English Teachers*

Measured Variables	<i>n</i>	%
Meditation Experience		
Yes	24	48
Not certain	6	12
No	20	40
Total	50	100
Frequency of meditation		
None	23	46
Only once	8	16
Several times	13	26
Often	4	8
Regularly	2	4
Total	50	100
Leisure time		
Almost none	3	6
Less than an hour	3	6
1 - 2 hour(s)	29	58
3 - 4 hours	14	28
5 -6 hours	1	2
Total	50	100

When looked closely, 25 teachers (50%) were in the control group, and the remaining 25 (50%) belonged to the experiment group, creating a good balance for the results. In terms of gender, 9 (18%) of them identified as males; 40 (80%) teachers identified as females; and the remaining 1 teacher (2%) preferred not to state their gender. The teachers were coming from different age groups, with 4 of them (8%) aged 25 or under; another 4 (8%) aged between 25 and 30); 12 teachers (24%) in the age range of 31 – 35; 15 teachers (30%) between the ages of 36 and 40; 10 of them (8%) aged between 41 and 45, and finally 5 of them (10%) aged 46 or over. While 21 teachers (42%) were working for a state (governmental) organization, the remaining 29 teachers (58%) were employed in a private (foundational) school. The majority of the teachers were coming from the higher education context with 44 teachers (88%) having stated they worked at a university/college, and among the rest,

1 teacher (2%) worked at a primary school; 4 teachers (8%) taught at the secondary level; and 1 teacher (2%) worked at a high school.

Most of the teachers had a teaching experience of more than 10 years. Only 1 teacher (2%) was in the first year in their profession, and 6 teachers (12%) had been teaching English for 1-5 years while 7 of them (14%) had been in the profession for 6-10 years. The numbers of more experienced teachers were 16 (32%) who taught for 11-15 years and 12 (24%) who taught English for 16-20 years. Finally, 5 of the participant teachers (10%) had a teaching experience of 21 years or over. Their educational backgrounds with 19 of them (38%) having a bachelor's degree; 23 of them (46%) having a master's degree; and 8 of them (16%) with a doctoral degree. Depending on their institutions and their positions at these institutions, their workload of teaching hours also varied. The options for workload presented on the survey were 4 - 8 hours, 9 - 15 hours, 16 - 25 hours, 26 hours or more, and the number of teachers for each option were 8 (16%), 21 (42%), 17 (34%), and 4 (8%), respectively.

Finally, nearly half of the participants (48%) had an experience of meditation before the current experiment, and 20 teachers (40%) stated they had never had a meditation experience before. Only 6 teachers (12%) were not sure if they had done meditation before or not. In this respect, 23 teachers (46%) phrased "none" as the frequency of their meditation experiences, but 8 teachers (16%) said they had done it at least once before; 13 teachers (26%) claimed to have done it several times; 4 teachers (8%) expressed they did it often; and 2 teachers (4%) marked "regularly" as their frequency of meditation practices. The last item of demographic information on the survey was the teachers' daily leisure time, and 3 teachers (6%) said they had no leisure time while another 3 of them (6%) stated they could afford less than an hour a

day. On the other hand, 29 participants (58%) said they spent 1 or 2 hours for their leisure time activities, and 14 teachers (28%) had 3 – 4 hours as leisure time. Only 1 teacher (2%) could afford 5 or 6 hours a day for their leisure time.

Instrumentation

Pre-test: Comprehensive Relative Autonomy Index (C-RAI)

As the purpose of the study was to see whether a mindfulness meditation affects the quality motivation of English teachers, I examined the already existing quality motivation of English teachers before the intervention to see what their motivation was to teach English. The base statement I presented to the teachers was “In general, I prepare myself for my English class because...” and to evaluate their quality motivation, Sheldon et al.’s (2017) Comprehensive Relative Autonomy Index (C-RAI) was used. The survey included 20 items in total, divided into five subscales; responses were indicated on a 5-point Likert type scale (1 = strongly disagree, 5 = strongly agree). The five subscales in the survey were external regulation (4 items, e.g. “In general, I prepare myself for my English class because important people (i.e., students, managers, other colleagues) will like me better if I do so.”); negative introjected regulation (4 items, e.g. “In general, I prepare myself for my English class because I would feel like a failure if I didn’t do it.”); positive introjected regulation (4 items, e.g. “In general, I prepare myself for my English class because I want to feel proud of myself.”), identified regulation (4 items, e.g. “In general, I prepare myself for my English class because I strongly value it.”); and intrinsic regulation (4 items, e.g. “In general, I prepare myself for my English class because I enjoy it.”) (see appendix D). The reliability statistics (Cronbach’s alpha) for different groups of subscales were $\alpha = .84$ for the external regulation items; $\alpha = .72$ for negative introjected regulation items; $\alpha = .72$ for positive introjected regulation

items; $\alpha = .74$ for identified regulation items; and $\alpha = .90$ for intrinsic regulation items. The reliability statistics for all of the items on the survey was $\alpha = .81$, pointing to a strong reliability.

Experimental Condition: A Guided Mindfulness Meditation

After expressing their general quality of motivation in the pre-test survey, teachers in the experiment group were exposed to an audio recording of a guided mindfulness meditation (see appendix E) that I prepared, read aloud, and prerecorded in the form of a guided meditation experience, which lasted for 8 minutes 21 seconds.

The guided meditation was prepared by me, as I have been a practitioner of meditation and mindfulness for the last 9 years. I started my journey at the organization of Brahma Kumaris, which is a worldwide spiritual movement committed to personal growth and transformation (<https://www.brahmakumaris.org/>). I have enriched my understanding of mindfulness by various readings of Eckhart Tolle's *The Power of Now* (2004) and *Practicing the Power of Now* (2008), Byron Katie's *The Value of Life Purpose* (2009), Louise L. Hay's *You Can Heal Your Life* (2009), Joe Dispenza's *Evolve Your Brain* (2008), and Jon Kabat Zinn's *Coming to Our Senses: Healing Ourselves and the World through Mindfulness*. In the year 2020, during Covid lockdown, I completed an 8-week mindfulness-based stress reduction program online (<https://palousemindfulness.com>). All these readings, practices, and the teaching I received from Brahma Kumaris has taught me that unless mindfulness and meditation are practiced and applied to real-life circumstances, then mere information solely does not make a real difference in one's life. Therefore, I started waking up at 4 am every morning to deepen my practice, connect to my inner

wisdom in silence and tranquility, and live the present moment and my feelings nonjudgmentally as a detached observer and have a positive attitude to heal and transform them. After witnessing all the positive alteration in my mind, emotions and behaviors, I started to implement the same practices with my students before they take exams. I simply give them a simple guided meditation in which I ask them to concentrate on their breath and the sensations on their bodies, and gradually let them relax one by one and concentrate on a single positive thought such as “I am a successful being.” or “I accomplish whatever I want easily.” Each term, some of my students come and thank me right after the exam for the short intervention we have telling me that it somehow helped them a lot to have a clearer and calmer mind during the exam.

As a teacher, I know that a lot of teachers feel daunted and tired from time to time, and some of us feel dissatisfied with their institutions, or even their jobs. So, I believe that connecting to our own wisdom, feelings, senses, and thoughts could guide us to make the right decisions, have the courage to change our lives along with the lives of others, or transform the negativity into positivity. Based on my experience, I can simply tell that mindfulness has had a great role for me to accomplish all these assets/aims that I have aforementioned. Therefore, I just wanted to share the method of mindful guided meditation and the results it would probably bring into my colleagues’ lives, and perhaps have a humble contribution to their inner self journey to become more connected to their own selves, needs, and desires and therefore become more autonomously motivated.

The aim of the guided meditation in the study was to call the participant teachers to the present moment, help them witness their sensations and feelings in their body, and to become detached observers to all those feelings and sensations

while they let go of any tension or stress being held in the body. By this way, I tried to help them get connected to their genuine selves in order for them to be able to see their needs for that moment while they calm their mind and senses and therefore see their needs clearly. This technique was implemented as a path which would pave the way to develop their autonomous decision making for the given moment and increase their motivation. This recording was randomly assigned to the participants by the Qualtrics software, and these teachers constituted the experiment group.

Placebo Control Condition: A Talk about Growth Mindset

To avoid placebo effect, the software assigned another audio recording to the rest of the group, again randomly, and this was a speech adapted from a TED Talks speech given by Prof. Carol Susan Dweck titled “The Power of Yet”. Again, I read and recorded this speech (see appendix F) to keep the two conditions equivalent in terms of voice and style, and it lasted for 8 minutes and 10 seconds (approximately equal time as the guided meditation condition). The talk is about the term “growth mindset” collated by Prof. Dweck, herself. This is a psychological term which indicates the skills and abilities not yet acquired but might be gained in the future by people. She talks about her research saying if people are exposed to the expression “not yet” more often instead of being told about their discrepancies and insufficiency, they will eventually have the courage and motivation to improve themselves and get better. Qualtrics made it possible to keep track of which person listened to which audio recording, and at the end of the data collection process, I classified these participants into one control and one experiment group before data analysis.

Lesson Preparation

Right after the mindfulness intervention, the participant teachers engaged in lesson preparation activity with the guidance of some structured and unstructured questions (see appendix G). It was a hypothetical listening/speaking lesson of 40 minutes about the main topic of chocolate, and the teachers were asked to think about a lesson plan/lesson preparation process for a target group of A2-B1 (Pre-intermediate) level students with the age of their preference. The lesson objectives were a) to learn vocabulary related to chocolate and baking, b) to develop listening skills, and c) to practice speaking skills. The reason of including a lesson preparation was that the dependent variable of quality of motivation implied changes in participants motivation in teaching. It was, therefore, necessary to simulate somehow a teaching condition to assess teachers' quality of motivation in this simulation of teaching after the treatment.

Post-test: Comprehensive Relative Autonomy Index (C-RAI)

After completing the lesson preparation activity, the participants were given a slightly different version of Sheldon et al.'s (2017) Comprehensive Relative Autonomy Index (C-RAI), this time with the base statement of "When I prepared THIS learning material (THE HISTORY OF CHOCOLATE LISTENING MATERIAL) for my English class, I did it because ..." (see appendix H). As in the pre-test, the participants reported five types of motivation through the five subscales of external regulation (4 items), negative introjected regulation (4 items), positive introjected regulation (4 items), identified regulation (4 items) and intrinsic regulation (4 items). The reliability statistics (Cronbach's alpha) for different groups of subscales of the post-test were $\alpha = .81$ for the external regulation items; $\alpha = .77$ for negative introjected regulation items; $\alpha = .78$ for positive introjected regulation

items; $\alpha = .88$ for identified regulation items; and $\alpha = .87$ for intrinsic regulation items. The reliability statistics for all of the items on the post-test survey was $\alpha = .92$, pointing to a very strong reliability.

Data Collection Process

After receiving the Ethical Committee approval from Bilkent University, I set up the experiment online using Qualtrics. The data collection process included 6 different sections and 4 different tools, all of which were placed on the online platform of Qualtrics software. The participants were first presented with the Informed Consent Form (see appendix B) that was aimed to inform them about the purpose of the study, the procedure of the data collection process, and their rights and other ethical considerations regarding the research they were going to get involved in. Following the consent form, they were asked to fill in a demographic survey (see appendix C) where they shared information regarding their gender, age, institution, student profile, education, work experience, meditation experiences, and leisure time. The first tool, which concerns the dependent variable of quality of motivation for lesson preparation, was the Comprehensive Relative Autonomy Index (C-RAI) (see appendix D), the items in which were adapted by Sheldon et al. (2017). Following the C-RAI, teachers were presented randomly with two different audio records slightly over eight minutes, a guided mindfulness meditation (experimental group), or alternatively a TED Talks speech (control group) (see appendices E and F). Right after the listening activity, the participants engaged in a lesson preparation task with some structured and unstructured questions (see appendix G). Finally, the teachers answered a version of the C-RAI to report the quality of their motivation in the lesson preparation task (see appendix H).

I shared the Qualtrics link with some of my colleagues and I asked these initial participants to share the link with their own closed circles, and I kept the survey open for a duration of two months. When this process was completed, I downloaded the survey answers on the Qualtrics software in the form an excel sheet, and I carefully scanned them in order to clean out the items that included partial or complete nonparticipation and partial or complete item nonresponse.

Methods of Data Analysis

The quantitative data obtained at the end of the data collection process were analyzed using IBM Statistical Package for the Social Sciences (SPSS) Statistics version 25, comparing the results of the pre-test and the post-test in terms of experiment and control groups.

For an initial analysis of the data, descriptive statistics, and correlations among the different types of motivation in the pre- and post- test were tested. Also, the changes in means in both groups were analyzed through Paired Samples *t*-Tests to find out whether these were statistically significant changes. The purpose of this analysis was to examine whether the assumptions of the main analysis were met.

After the preliminary analysis, the data sets were tested through Two-Way Repeated Measures ANOVA design as the they had been collected in both within-participants (pre- and post-test) and between-participants (experimental and control condition) forms in different sections of the experiment before and after the treatment, and there was more than one dependent variable (external motivation, negative introjected motivation, positive introjected motivation, identified motivation, and intrinsic motivation). The biggest advantage of using this design was the fact that it enabled to maintain a low variability within the small number of groups, which had a positive impact on the validity of the results (Frost, 2017).

CHAPTER 4: RESULTS

Introduction

The purpose of the study was to test whether English teachers can improve their quality of motivation when they are exposed to meditation. In this regard, an experimental research design was applied. In this chapter, I present the preliminary and main analysis of the data concerning teachers' quality of motivation before and after the intervention of mindfulness. The preliminary findings are comprised of the results obtained through descriptive statistics and correlation tests. Following these initial findings, the results of the Two-Way Repeated Measures ANOVA are given to reach a deeper understanding the effect of mindfulness on English teachers' quality of motivation for teaching.

Preliminary Findings

Descriptive statistics were used to see if there were any observable mean differences between the pre-test and post-test results of both the control group and the experimental group. The table below shows the mean and standard deviation for each type of motivation as well as for each type of behavioral regulation for both the control and the experimental group before and after the intervention.

Table 2

Descriptive Statistics Regarding the Pre-test and Post-test Results for Both Groups

Motivation Type	Control Group				Experiment Group			
	Pre-test		Post-test		Pre-test		Post-test	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
External regulation	2.47	0.98	2.02	0.72	2.43	0.79	1.98	0.60
Negative introjected regulation	3.54	0.65	2.46	0.83	3.48	0.83	2.23	0.77
Positive introjected regulation	3.81	0.52	2.92	0.83	4.01	0.69	2.68	1.02
Identified regulation	4.26	0.53	3.17	1.03	4.21	0.51	3.09	1.15

Table 2 (cont'd)*Descriptive Statistics Regarding the Pre-test and Post-test Results for Both Groups*

Motivation Type	Control Group				Experiment Group			
	Pre-test		Post-test		Pre-test		Post-test	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Intrinsic regulation	3.65	0.71	3.11	0.88	3.58	0.86	3.19	1.09
Autonomous motivation	3.95	0.54	3.14	0.83	3.89	0.62	3.14	1.06
Controlled motivation	3.27	0.63	2.47	0.71	3.31	0.60	2.30	0.65

These means are the average scores for the four items in each type of behavioral regulation. Additionally, autonomous motivation represents the average mean for all the items belonging to identified and intrinsic regulations; controlled motivation stands for the average mean for all the items of external, negative introjected, and positive introjected regulations. For the analysis, different scales of the of the questionnaire (*strongly disagree, disagree, neither agree nor disagree, agree, strongly agree*) were replaced with dummy variables (1.00, 2.00, 3.00, 4.00, 5.00, respectively) for ease of analysis on SPSS, 1.00 being the lowest score, 3.00 being the average, and 5.00 as the highest score).

When the table is analyzed, it is possible to observe that the mean scores for both groups are quite close to each other for all types of regulations and motivation, which points to the fact that all of the participants had similar levels of motivation for lesson preparation before the intervention. The control group has the highest means for identified regulation ($M = 4.26$, $SD = 0.53$) and autonomous orientation ($M = 3.95$, $SD = 0.54$), while lowest level of motivation seems to be in external regulation ($M = 2.47$, $SD = 0.98$) and impersonal orientation ($M = 3.00$, $SD = 0.75$). Similarly, the experiment group has the highest means for identified regulation ($M = 4.21$, $SD = 0.51$) and autonomous orientation ($M = 3.89$, $SD = 0.62$), while lowest

level of motivation seems to be in external regulation ($M = 2.43$, $SD = 0.79$) and impersonal orientation ($M = 2.95$, $SD = 0.70$).

After the experiment, there seems to be varying levels of decrease in mean for both groups in their different types of motivation, and these ratios of decrease also seem to be parallel in both groups. However, the biggest ratios of decrease seem to have taken place in the experiment groups in three areas, which are negative introjected regulation (from $M = 3.48$, $SD = 0.83$ to $M = 2.23$, $SD = 0.77$), positive introjected regulation (from $M = 4.01$, $SD = 0.69$ to $M = 2.68$, $SD = 1.02$), and identified regulation (from $M = 4.21$, $SD = 0.51$ to $M = 3.09$, $SD = 1.15$) as well as controlled motivation (from $M = 3.31$, $SD = 0.60$ to $M = 2.30$, $SD = 0.65$). To understand if this decrease was statistically significant, a Paired Samples t-test was conducted, and the tables below shows the results.

Table 3

Experiment Group's Paired Samples t-Test Results

Motivation		Paired Samples Statistics			Paired Differences				
Type	Test	<i>M</i>	<i>n</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Pos. int. reg.	Pre-test	3.48	25	0.83	1.25	0.88	7.12	24	< .001
	Post-test	2.28	25	0.77					
Neg. int. reg.	Pre-test	4.01	25	0.69	1.33	1.36	4.90	24	< .001
	Post-test	2.68	25	1.02					
Id. reg.	Pre-test	4.21	25	0.51	1.12	1.54	3.64	24	< .001
	Post-test	3.09	25	1.15					
Auto. mot.	Pre-test	3.89	25	0.62	0.75	1.51	2.49	24	.020
	Post-test	3.14	25	1.06					
Contd. mot.	Pre-test	3.31	25	0.60	1.01	0.72	7.02	24	< .001
	Post-test	2.30	25	0.65					

Note. Pos. int. reg. = Positive introjected regulation; Net. Int. reg. = Negative

introjected regulation; Id. reg. = Identified regulation; Auto. mot. = Autonomous

motivation; Contd. mot. = Controlled motivation

The Paired Samples *t*-test reveals that the decreases in the mean scores are statistically significant for positive introjected regulation, $t(24) = 7.119, p < .001$; for negative introjected regulation, $t(24) = 4.899, p < .001$; and for identified regulation, $t(24) = 3.641, p < .001$. Also, there were statistically significant differences in the mean scores for their controlled motivation, $t(24) = 7.020, p < .001$. However, the decrease in the experiment groups' autonomous motivation after the intervention was not statistically significant, $t(24) = 2.495, p > .001$.

Table 4

Control Group's Paired Samples t-Test Results

Motivation Type	Test	Paired Samples Statistics			Paired Differences				
		<i>M</i>	<i>n</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Auto. mot.	Pre-test	3.95	25	0.54	0.81	1.08	24	3.76	< .001
	Post-test	3.14	25	0.83					
Contd. mot.	Pre-test	3.27	25	0.63	0.81	0.88	24	4.56	< .001
	Post-test	2.47	25	0.71					

Note. Auto. mot. = Autonomous motivation; Contd. mot. = Controlled motivation

For the differences in the control group, a Paired Samples *t*-test showed that there were statistically significant decreases for both autonomous motivation ($t[24] = 3.764, p < .001$) and controlled motivation ($t[24] = 4.557, p < .001$). Therefore, significant differences were observed in both groups and in order to test whether any of these differences is due to the intervention, a Two-Way Repeated Measures ANOVA was performed in the main analysis.

In the preliminary analysis, I also tested the bivariate correlations among the measured variables as well as the demographic characteristics. In Table 5, only the aggregated variables of autonomous and controlled motivation are included as they are the best indicators for quality of motivation.

Table 5

Bivariate Correlations among Some of the Measured Variables

Variables	1	2	3	4	5	6	7
1. Gender	—						
2. Age	-.10	—					
3. Weekly workload	.10	-.01	—				
4. Pre-test autonomous motivation	.16	-.08	-.44**	—			
5. Post-test autonomous motivation	-.04	.15	.12	-.44**	—		
6. Pre-test controlled motivation	.11	-.36**	.14	-.04	-.34*	—	
7. Post-test controlled motivation	-.02	-.01	.17	-.42**	.56**	.23	—

Note. * $p < .05$. ** $p < .01$; Gender was dummy-coded (1 = male, 2 = female); Age was dummy-coded (1 = Younger than 25, 2 = 25 – 30, 3 = 31 – 35, 4 = 36 – 40, 5 = 41 – 45, 6 = 46 or over); Weekly workload was dummy-coded (1 = 4 - 8 hours, 2 = 9 - 15 hours, 3 = 16 - 25 hours, 4 = 26 hours or more)

A Pearson Correlation test revealed that the gender of the participants does not correlate with their either autonomous or controlled motivation before and after the intervention. The age range, on the other hand, was negatively correlated with their control motivation in the pre-test result, $r = -.36$, $p < .01$, while their weekly workload seemed to be negatively correlated with their autonomous motivation levels in the pre-test, $r = -.44$, $p < .01$. These variables of gender, age, and workload were not correlated with the post-test results for both autonomous motivation and controlled motivation.

Major Findings

In order to test differences between pre-test and post-test (within participants) as well as differences between the experimental and the control group (between participants), Two-Way Repeated Measures ANOVA tests were applied, and all of the assumptions for these tests were met: There were no systematic outliers in either of the groups; the variables for both groups were approximately normally distributed; and the condition of sphericity was also ensured as there were only two levels of repeated measures.

External Regulation

A Two-Way Repeated Measures ANOVA showed a significant decrease in external regulation in the post-test in both groups ($F(1, 48) = 16.76, p < .001$). External regulation was lower in the post-test than in the pre-test ($M_{post-test} = 2.00, SE = 0.09, 95\% \text{ -CI: } 1.81, 2.19$ vs. $M_{pre-test} = 2.45, SE = 0.12, 95\% \text{ -CI: } 2.20, 2.70$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in external regulation.

Negative Introjected Regulation

A Two-Way Repeated Measures ANOVA showed a significant decrease in negative introjected regulation in the post-test in both groups ($F(1, 48) = 76.26, p < .001$). Negative introjected regulation was lower in post-test than in pre-test ($M_{post-test} = 2.34, SE = 0.11, 95\% \text{ -CI: } 2.12, 2.57$ vs. $M_{pre-test} = 3.51, SE = 0.10, 95\% \text{ -CI: } 3.30, 3.72$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in negative introjected regulation.

Positive Introjected Regulation

A Two-Way Repeated Measures ANOVA showed a significant decrease in positive introjected regulation in the post-test in both groups ($F(1, 48) = 42.41, p < .001$). Positive introjected regulation was lower in post-test than in pre-test ($M_{post-test} = 2.80, SE = 0.13, 95\% \text{ -CI: } 2.54, 3.06$ vs. $M_{pre-test} = 3.91, SE = 0.09, 95\% \text{ -CI: } 3.74, 4.08$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in positive introjected regulation.

Identified Regulation

A Two-Way Repeated Measures ANOVA showed a significant decrease in identified regulation in the post-test in both groups ($F(1, 48) = 28.66, p < .001$). Identified regulation was lower in post-test than in pre-test ($M_{post-test} = 3.13, SE = 0.15, 95\% \text{ -CI: } 2.82, 3.44$ vs. $M_{pre-test} = 4.24, SE = 0.07, 95\% \text{ -CI: } 4.09, 4.38$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in identified regulation.

Intrinsic Regulation

A Two-Way Repeated Measures ANOVA showed no significant decrease in intrinsic regulation in the post-test in both groups ($F(1, 48) = 5.78, p = .020$). Intrinsic regulation was lower in post-test than in pre-test ($M_{post-test} = 3.15, SE = 0.14, 95\% \text{ -CI: } 2.87, 3.43$ vs. $M_{pre-test} = 3.61, SE = 0.11, 95\% \text{ -CI: } 3.39, 3.84$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in intrinsic regulation.

Autonomous Motivation

A Two-Way Repeated Measures ANOVA showed a significant decrease in autonomous motivation in the post-test in both groups ($F(1, 48) = 17.80, p < .001$). Autonomous motivation was lower in post-test than in pre-test ($M_{post-test} = 3.14, SE = 0.13, 95\% \text{ -CI: } 2.87, 3.41$ vs. $M_{pre-test} = 3.92, SE = 0.08, 95\% \text{ -CI: } 3.76, 4.09$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in autonomous motivation.

Controlled Motivation

A Two-Way Repeated Measures ANOVA showed a significant decrease in controlled motivation in the post-test in both groups ($F(1, 48) = 63.42, p < .001$). Controlled motivation was lower in post-test than in pre-test ($M_{post-test} = 2.38, SE = 0.10, 95\% \text{ -CI: } 2.19, 2.57$ vs. $M_{pre-test} = 3.29, SE = 0.09, 95\% \text{ -CI: } 3.12, 3.46$). On the other hand, there was no statistically significant interaction between time and groups which shows that the guided mindfulness meditation did not account for any decrease in controlled motivation.

All the Two-Way Repeated Measures ANOVA tests carried out showed that the treatment of the guided mindfulness meditation had no statistically significant impact on any of the types of regulations or motivations. In the next chapter, I will be discussing these findings with reference to their theoretical and practical implications.

CHAPTER 5: DISCUSSION

Introduction

In this final chapter, I will briefly give an overview of the study summarizing the aim of the research, the profile of the methods, the data collection tools and the data collection process, the analysis methods, and the major findings of the study. After that, these major findings will be discussed in detail with references to literature. Finally, I will list a number of implications the current study might have for practice and further research.

Overview of the Study

This experimental study was designed to assess if the technique of a guided mindfulness meditation would have any impact on English language teachers' quality of motivation for lesson preparation. For this purpose, I conducted an experiment with 50 ($N = 50$) English language teachers from Turkey, working in different contexts varying from kindergarten to university preparatory schools. These teachers, reached through a snowball sampling technique, were provided with a Qualtrics link leading them to a fifteen / twenty-minute experiment comprised of different steps.

As a first step, the participants were asked to fill in a demographic survey collecting information on the participants' gender, age, type of institution (workplace), student profile, years of teaching experience, educational background, weekly workload, meditation experiences, and amount of leisure time. After this survey, all the participants had to fill in the pre-test version of the Comprehensive Relative Autonomy Index (C-RAI) (see appendix D) that was measuring their motivation for lesson preparation in general in terms of the subscales of external

regulation, negative introjected regulation, positive introjected regulation, identified regulation, and intrinsic regulation. Following the index, the Qualtrics platform randomly provided the participants with two audio recordings: a) a guided mindfulness meditation of 8 minutes 21 seconds that I prepared, read aloud, and recorded (see appendix E). The people who listened this mindfulness meditation constituted the experiment group. The other half of the participants, namely the control group, listened to a TED Talks speech of 8 minutes and 10 seconds, titled “The Power of Yet” given by Prof. Carol Susan Dweck (see appendix F). Similarly, I read the TED Talks speech aloud and recorded my voice. Once the participants were exposed to the intervention, they were made to engage with a structured lesson preparation process asking them to brainstorm on their imaginary preparation for an English lesson considering the given context and learning materials (see appendix G). As a last step, all the participants were asked to fill in the post-test version of the Comprehensive Relative Autonomy Index (C-RAI) (see appendix H), this time measuring their motivation for this specific lesson preparation in terms of the same subscales of external regulation, negative introjected regulation, positive introjected regulation, identified regulation, and intrinsic regulation.

All the qualitative data obtained from this procedure was analyzed through IBM Statistical Package for the Social Sciences (SPSS) Statistics version 25. The preliminary analysis included descriptive statistics, correlation tests, a Paired Samples t-test, while the main analysis included a Two-Way Repeated Measures ANOVA to see if the treatment had any impact on the participant’ quality of motivation. The mean differences between the pre-test and post-test results showed that there was a decrease in both the experiment and the control group in all types of motivation, and the biggest decrease was in the experiment group’s negative

introjected, positive introjected, and identified regulations, which were all statistically significant as shown by the Paired Samples t-test. Also, the Pearson correlation test revealed that the age of the participant was negatively correlated with their positive introjected regulation and controlled motivation, and their workload was negatively correlated with their identified regulation, intrinsic regulation, and autonomous motivation. However, according to the results of the Two-Way Repeated Measures ANOVA tests, there were no statistically significant interactions between the treatment of mindfulness and the types of motivation. The experiment concluded that the technique of mindfulness had no statistically significant impact on English language teachers' quality of motivation for lesson preparation.

Discussion of Major Findings

The results of both the statistical analyses showed that, though not directly due to the intervention of guided mindfulness meditation, all the measured motivational variables decreased statistically in both groups. As a matter of fact, the decrease in autonomous motivation can be interpreted as a less positive development in terms of the participant teachers' quality of motivation. Obviously, the teachers engaged with the lesson preparation activity within the experiment with less identified or intrinsic regulations.

On the other hand, there was a statistically significant decrease in the average mean scores for controlled motivation in both groups, as well, and this could be regarded as a positive result in the face of the participant teachers. Introjected regulation, one scale factor of controlled motivation on the Comprehensive Relative Autonomy Index (C-RAI), for example, is based on the notion of not feeling guilty or shameful and keeping a positive image in the eyes of the other people in our context. Hoffman (1982) emphasizes that most of the time, guilt can be considered as

a great source of motivation as it pushes people to take active action. However, SDT warns that introjected motivation that relies on the feeling of guilt could have a damaging impact on the individual's well-being (Verstuyf et al., 2012). This decrease in the controlled motivation could be attributed to both the guided mindfulness meditation and the TED Talks speech. This particular TED Talks speech, although it is not related to mindfulness meditation, is a motivating talk about the improvement of ones' ability. Therefore, both conditions, the mindfulness meditation and the growth mindset talk, might have been conducive to the decrease of controlled motivation.

One factor that might have caused the experiment to yield results that make it difficult to see the impact of mindfulness is actually the length of the guided mindfulness meditation (approximately 8 minutes). Li et al. (2020) carried out a similar experiment using mindfulness as an intervention to change pre-service teachers' attitude towards their prospective students with special needs. They exposed the participant teachers to a 10-minute mindfulness training, but they concluded that the short intervention had had no impact on teachers' attitudes. On the other hand, other scholar who exposed their participants to lengthy, comprehensive mindfulness training seem to have obtain more meaningful results (Di Carlo et al., 2019; Mackenzie et al., 2020; Matiz et al., 2020; Song et al., 2020).

Another potential factor leading to these results is the "virtual, non-authentic, artificial" lesson preparation condition that the participants engaged with. Such artificial situations make it less likely for individuals to find something enjoyable that is related to their profession. It is also less likely to find such a situation important for them. Therefore, the artificial lesson preparation task itself was not appropriate to measure teachers' quality of motivation. On the contrary, there is a

higher probability that it was perceived as pressuring (e.g., while engaging with the lesson preparation task, a participant teacher might have felt that they did it because the researcher asked them to participate in the experiment).

Lastly, Qualtrics platform did not allow me to embed the audio recordings into the experiment in a way that participant will not be able to pause the audio once it starts, having had to listen the whole meditation / TED Talks speech. Additionally, the response reports did not show me how many minutes of the audio recordings were played by the teachers, and the only piece of information was if the recording had been viewed or not. Supposing that the teachers played the audio from the beginning to the end, I still would not where, when, or in what manner they listened to it if they did at all. They, for example, might be doing something else (such as browsing another website on their computers) as the audio played in the background. The lack of this information, too, makes it very difficult for me to interpret and explain the results of the statistical tests.

Discussion of Further Findings

Apart from the findings related to my research question, some other notable results were revealed in this study. The Pearson correlation test showed that there was statistically significant negative correlation between the participant's pre-test controlled motivation levels and their age. This means these English teachers tend to have higher levels of extrinsic motivation when they are younger, and as they age, their extrinsic motivation levels decrease. There are studies, though not directly designed around SDT, that demonstrate the relationship between teachers' age and motivation. A preliminary empirical study by Anghelache (2014) aimed to establish the degree of students' motivation for the profession of teaching revealed that the students who were already involved in teaching has higher motivation for the

profession than the ones who were not, and the participants' motivation for teaching increased as their ages increased. Another study by Qin et al. (2015), carried out to assess teacher motivation levels in terms of the participant teachers' age, gender, institution, educational background, their parents' educational background, and the type of their service, found out that there was weak but positive relationship between the participant teachers' age and their motivation for the profession of teaching. Parallel to these, Sheldon et al. (2006) conducted a study to find out if autonomy levels increased with age in terms of goal motivations. Concerning the variable of age, the study showed that senior participants in the study tended to have higher levels of identified and intrinsic motivation than the younger participants did, while the levels of external and introjected motivation seemed similar for all age groups. In the light of findings of the current study and other studies cited, it is possible to conclude that as English teachers age, their levels of controlled motivation might decrease, and they might tend to become more autonomous in terms of preparing for their lessons.

The Pearson correlation tests also revealed that the participant teachers' weekly teaching workload was negatively correlated with their autonomous orientation. This can be interpreted as a decrease in these teacher's autonomous lesson preparation as they teach higher number of lessons. This finding is similar to what Worth and Van den Brande (2020) reported in their study conducted for National Foundation for Educational Research. They summarize their findings regarding autonomy as follows:

We find that teacher autonomy is strongly related to the extent to which teachers regard their workload as manageable. Although fewer than half of teachers at all autonomy levels say their workload is manageable, nearly half

of teachers with the highest autonomy report having a manageable workload compared to less than one in five of those with the lowest autonomy.

Autonomy also correlates with teachers' satisfaction with their amount of leisure time. (Worth & Van den Brande, 2020, p. 15)

The final finding of the study showed that there were no statistically significant interactions between the treatment of mindfulness and the types of motivation. Rather than concluding that mindfulness does not any impact on English teachers' motivation for lesson preparation, it could be more useful to say that this specific study could not identify any impact of mindfulness on English teachers' motivation for lesson preparation, and this could have been due certain flaws in the experiment design which are also discussed in the limitations section in Chapter 1 and implications for further research section in Chapter 5. Therefore, researchers who would like to replicate this study or design similar experiment can take these points into considerations to obtain more meaningful results.

Implications for Practice

The major finding of the current study is that a brief exposure to guided mindfulness meditation was not enough to improve the good quality of teachers' motivation although it was enough to decrease the poor quality of teachers' motivation. Therefore, I feel the need to suggest a more extensive training in mindful meditation for the pre-service and in-service teachers. Also, the inclusion of the TED Talks speech in the experiment points to the fact that growth mindset intervention could be beneficial to decrease teachers' poor quality of motivation, and therefore, such intervention could be also combined with mindfulness during teacher training activities.

Considering that age and workload has something to do with English teachers' controlled motivation towards lesson preparation, institutions who would like to provide their teachers with in-service training and continuous professional development activities regarding lesson preparation can keep these two variables in mind. Also, induction and orientation programs intended for in-service teachers who are just stepping into the profession could aim to help them become more autonomous in preparing for their lessons, and organizations such as projects and special interest groups aiming to generate learning / teaching material for school-wide use can pay attention to pair / group up younger and senior teachers together in order create a balance between controlled and autonomous motivation.

Implications for Further Research

One of the limitations of this quantitative, experimental study was the sample size. I was able to reach 84 participants in total, but during the data analysis process, I decided to use data only from 50 of these participants as the remaining 34 had not properly engaged with the intervention, which would have threatened the reliability of the results. So, all the findings of the study are based on the quantitative data collected from these 50 people, which makes 25 when divided as experiment and control groups. Therefore, researchers who would like to carry out similar studies should aim to include a bigger sample size as a small sample size could cause difficulties in capturing small size effects of the treatment on the dependent variables (Type II error).

Also, choosing the right placebo item that will make up for the intervention in the control group seems to be important for research of this nature. In this experiment, the TED Talks speech chosen had a similar impact on the control group as the mindfulness experience had on the experiment group because it was also a

very uplifting speech talking about a subject that is quite delicate for someone who is involved in the education sector. The science of psychology emphasizes that placebo effect can take place due to many elements such as expectations, being conditioned, learning, memory, or motivation (Price et al., 2008). So, it is crucial to choose an alternative to the main intervention that will have less placebo effect in order for the researcher to identify the intervention's impact clearly.

The current study aimed to conduct the mindfulness experiment designed to create an impact on teacher motivation in 8 minutes. Although this one-time series design can be effective in preventing the unwanted impact of certain variables, scholar doing research on quantitative designs explain that analysis of individual differences in such time-series designs won't be effective without the records of the inherent temporal factors that shape both the individuals and the conditions (Molenaar, 2008; Molenaar et al., 2002). Therefore, it would be wise to extend the duration of the experiment and keep track of the change in lots of variables such as to see whether participants listen to the whole audio or not, or whether they engage themselves wholeheartedly with the task or simply do other things like texting on their phones, checking their photos etc., or how much time they spend on the lesson preparation stage in order to obtain more quality data and achieve a deeper understanding of the analysis results.

Triangulation of the findings through some qualitative data should be something further research keeps under consideration. According to Heale and Forbes (2017), triangulation is the method of using several approached for a single research question, which might boost the confidingness in a study. So, an interview with some of the participants from control and experiment groups could have told me more about how they felt while answering the questionnaires, and if they believed

the mindfulness intervention (the TED Talks speech for the control group) had any impact on their motivation, and this information could have been used to endorse the statistical findings of the current study.

Finally, the demographic survey revealed that only 24 of the participants had had meditation experience before this experiment, and only 2 of them stated that they were meditating regularly. Therefore, it turned out that a considerable number of participants engaged with the guided mindfulness meditation without knowing how to do it properly, which might have had a huge impact on the reliability of the results. Therefore, replicating exactly the same experiment with a group of participants who trained in terms of mindfulness and meditation could yield totally different results, and this is another point of consideration for further research.

Limitations

In order to supply better reliability conditions, this study was first planned as a face-to-face workshop sequence. According to the first design, the experiment group would be exposed to a 4-week program, each session ending an hour. I was planning to give the workshop at my own institution. Participants would be assigned with some weekly tasks such as tracking their emotions, feelings and thoughts, listening to guided meditation commentaries regularly every day, and keeping diaries about their progress. The control group would be exposed to a testing, evaluation and question writing training given by a trainer of ITI (International Training Institute).

However, due to covid-19 pandemic, most universities have gone online since March 2020. Therefore, it has been impossible for me to gather all the participants at the same venue. Eventually the content and the design of the intervention was reformulated according to the new standards and conditions of the participant teachers who were overloaded with several online obligations. Therefore,

the intended 4-week intervention program which was also enriched with extra tasks and duties for the participants turned into 8-minute online guided meditation design. Therefore, the limited duration of the study can be counted as the biggest drawback of the study. Literature says the shortest intervention which deemed to create a statistically significant difference was an intensive 4-day long treatment (Song et al., 2020).

It would also be the strength of the study if some of the participants could have been interviewed about the process in order to see the procedure, feelings they had gone through while learning about their experience from their own mouth by their own words. This kind of design would also create a change of triangulation for the study. Another limitation could be the sample size. Although the study reached 85 people initially, 34 participants had to be removed as they hadn't answered the survey questions properly. I still do not know how well the remaining 50 participants listened to the audio recordings as Qualtrics does not notify whether the audio recordings have been fully or partly listened.

Choosing an utterly different placebo item for the control group is quite significant. Although I thought the content of control group's audio was different from the experiment one. Since the TED Talks speech was also related to motivation somehow if not directly, it might have had a place effect on the participants. Last but not least, the participants who had already been involved in meditation, mindfulness and mindfulness meditation trainings earlier had to be involved in the study as the number of the participants had declined to the explained reason above. An experiment group with no earlier experience of mindfulness meditation could have yielded different results.

REFERENCES

- Abós, Á., Haerens, L., Sevil, J., Aelterman, N., & García-González, L. (2018). Teachers' motivation in relation to their psychological functioning and interpersonal style: A variable- and person-centered approach. *Teaching and Teacher Education, 74*, 21–34.
- Amel, E. L., Manning, C. M., & Scott, B. A. (2009). Mindfulness and sustainable behaviour: pondering attention and awareness as means for increasing green behaviour. *Ecopsychology, 1*(1), 14–25.
<https://doi.org/10.1089/eco.2008.0005>
- Anghelache, V. (2014). Motivation for the teaching career: Preliminary study. *Procedia - Social and Behavioural Sciences, 128*, 49–53.
- Alam, M. T., & Farid, S. (2011). Factors affecting teachers' motivation. *International Journal of Business and Social Science, 2*(1), 298–304.
<https://doi.org/10.1108/IJEM-04-2014-0057>
- Averill, E. W. (1992). The problem of consciousness: Essays toward a resolution. *Philosophical Books, 33*(3), 168–170. <https://doi.org/10.1111/j.1468-0149.1992.tb02351.x>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117–148.
https://doi.org/10.1207/s15326985ep2802_3
- Barbaro, N., & Pickett, S. M. (2016). Mindfully green: Examining the effect of connectedness to nature on the relationship between mindfulness and engagement in pro-environmental behavior. *Personality and Individual Differences, 93*, 137–142. <https://doi.org/10.1016/j.paid.2015.05.026>

- Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public Administration Quarterly*, *17*, 112–121.
<https://doi.org/10.1080/01900699408524907>
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications* (3rd ed.). Free Press.
- Berkovich-Ohana, A., Lavy, S., & Shanboor, K. (2020). Effects of a mindfulness intervention among Arab teachers are mediated by decentring: A pilot study. *Frontiers in psychology*, *11*, 2475. <https://doi.org/10.3389/fpsyg.2020.542986>
- Bond, F. W., Lloyd, J., & Guenole, N. (2013). The work-related acceptance and action questionnaire: Initial psychometric findings and their implications for measuring psychological flexibility in specific contexts. *Journal of Occupational and Organizational Psychology*, *86*(3), 331–347.
<https://doi.org/10.1111/joop.12001>
- Bostock, S., Crosswell, A. D., Prather, A. A., & Steptoe, A. (2019). Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being. *Journal of Occupational Health Psychology*, *24*(1), 127–138.
<https://doi.org/10.1037/ocp0000118>
- Brown K. W., Ryan R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*(4), 822–848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, *18*, 211–237. <https://doi.org/10.1080/10478400701598298>

- Brown, M., Ralph, S., & Brember, I. (2002). Change-linked work-related stress in British teachers. *Research in Education*, 67(1), 1–12.
<https://doi.org/10.7227/RIE.67.1>
- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. *Behaviour Therapy*, 35(3), 471–494. [https://doi.org/10.1016/S0005-7894\(04\)80028-5](https://doi.org/10.1016/S0005-7894(04)80028-5)
- Cash, P., Stanković, T., & Štorga, M. (2016). *Experimental design research: Approaches, perspectives, applications*. Springer.
- Cerasoli, C. P., Nicklin, J. M. & Ford, M. T. (2014). Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological Bulletin*, 140(4), 980–1008. <https://doi.org/10.1037/a0035661>
- Cohen, S., Kamark, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behaviour*, 24(4), 285–396.
<http://www.psy.cmu.edu/~scohen/globalmeas83.pdf>
- Connell, J. P. (1990). Context, self, and action: A motivational analysis of self-system processes across the life span. In D. Cicchetti & M. Beeghly (Eds.), *The self in transition: Infancy to childhood* (pp. 61–97). University of Chicago Press.
- Cooper, C. L., & Kelly, M. (1993) Occupational stress in head teachers: A national UK study. *British Journal of Educational Psychology*, 63(1), 130–143.
<https://doi.org/10.1111/j.2044-8279.1993.tb01046.x>
- Crabtree, S. (2013). Worldwide, 13% of employees are engaged at work low workplace engagement offers opportunities to improve business outcomes. Gallup. <https://news.gallup.com/poll/165269/worldwide-employees-engaged-work.aspx8>

- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). SAGE Publications.
- Creswell, J. W. (2014). *Educational research: Planning, conducting and evaluation quantitative and qualitative research* (4th ed.). Pearson Education Limited.
- Daniel, J. (2012). *Sampling essentials: Practical guidelines for making sampling choices*. Sage Publications.
- Daniels, E. (2011). Creating motivating learning environments: Teachers matter: Teachers can influence students' motivation to achieve in school. *Middle School Journal*, 43(2), 32–37.
<https://www.doi.org/10.1080/00940771.2011.11461799>
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., ... & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic medicine*, 65(4), 564–570.
- Davies, D., Jindal-Snape, D., Digby, R., Howe, A., Collier, C., & Hay, P. (2014). The roles and development needs of teachers to promote creativity: A systematic review of literature. *Teaching and Teacher Education*, 41, 34–41.
<https://doi.org/10.1016/j.tate.2014.03.003>
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1), 105–115.
<https://doi.org/10.1037/h0030644>
- Deci, E. L. & Ryan, R. M. (1980). Self-determination theory: When mind mediates behavior. *The Journal of Mind and Behavior*, 1(1), 33–43.
<https://www.jstor.org/stable/43852807>

- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press.
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie canadienne*, 49(3), 182–185.
<https://doi.org/10.1037/a0012801>
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26(3–4), 325–346. https://doi.org/10.1207/s15326985ep2603&4_6
- de Jong, A., Hommes, M., Brouwers, A., & Tomic, W. (2013). Effects of mindfulness-based stress reduction course on stress, mindfulness, job self-efficacy and motivation among unemployed people. *Australian Journal of Career Development*, 22(2), 51–62.
<https://doi.org/10.1177/1038416213486095>
- Deikman, A. J. (1982). *The observing self*. Beacon Press.
- Dewe, P. J. (1986). An investigation into the causes and consequences of teacher stress. *New Zealand Journal of Educational Studies*, 21(2), 145–157.
- DiCarlo, C. F., Meaux, A. B., & LaBiche, E. H. (2020). Exploring mindfulness for perceived teacher stress and classroom climate. *Early Childhood Education Journal*, 48, 485–496. <https://doi.org/10.1007/s10643-019-01015-6>
- Dickinson, L. (1995). Autonomy and motivation: A literature review. *System*, 23, 165–174. [http://dx.doi.org/10.1016/0346-251X\(95\)00005-5](http://dx.doi.org/10.1016/0346-251X(95)00005-5)
- Doty, J. R. (2016). *Into the magic shop: a neurosurgeon's quest to discover the mysteries of the brain and the secrets of the heart*. Avery Penguin Group.

- Edwards, A. (2015). *The heart of sustainability: Restoring ecological balance from the inside out*. New Society Publishers.
- Eyal, O., & Roth, G. (2011). Principals' leadership and teachers' motivation: Self-determination theory analysis. *Journal of Educational Administration*, 49(3), 256–275. <https://doi.org/10.1108/09578231111129055>
- Fernet, C., Guay, F., Senécal, C., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education*, 28, 514–525. <https://doi.org/10.1016/j.tate.2011.11.013>
- Fernet, C., Trépanier, S. G., Austin, S., & Levesque-Côté, J. (2016). Committed, inspiring, and healthy teachers: How do school environment and motivational factors facilitate optimal functioning at career start? *Teaching and Teacher Education*, 59, 481–491. <https://doi.org/10.1016/j.tate.2016.07.019>
- Foster, J. J., & Parker, I. (1995). *Carrying out investigations in psychology*. BPS Books.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research* 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Frost, J. (2017, March 19). Repeated measures designs: Benefits and an ANOVA example. Statistics By Jim. <https://statisticsbyjim.com/anova/repeated-measures-designs-benefits-anova-example/>
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>

- Gilbert, D., & Waltz, J. (2010). Mindfulness and health behaviors. *Mindfulness, 1*, 227–234. <https://doi.org/10.1007/s12671-010-0032-3>
- Goleman, D., & Davidson, R. (2017). *Altered traits: Science reveals how meditation changes your mind, brain, and body*. Avery Books.
- Gordon, D. G. (2002). Discipline in the music classroom: One component contributing to teacher stress. *Music Education Research, 4*(1), 157–165, <https://doi.org/10.1080/14613800220119831>
- Gorozidis, G., & Papaioannou, A. G. (2014). Teachers' motivation to participate in training and to implement innovations. *Teaching and Teacher Education, 39*, 1–11. <https://doi.org/10.1016/j.tate.2013.12.001>
- Graham, A., & Truscott, J. (2020). *Christian meditation in schools: Review of related evidence*. Centre for Children and Young People, Southern Cross University, Lismore, Australia.
- Grossenbacher, P. G., & Quaglia, J. T. (2017). Contemplative cognition: a more integrative framework for advancing mindfulness and meditation research. *Mindfulness, 8*, 1580–1593. <https://doi.org/10.1007/s12671-017-0730-1>
- Hanh, T. N. (1999). *The miracle of mindfulness: An Introduction to the Practice of Meditation*. (M. Ho, Trans.). Beacon Press. (Original work published 1975)
- Heale, R., & Forbes, D. (2017). Understanding triangulation in research. *Evidence-based Nursing, 16*(4), 98. <http://dx.doi.org/10.1136/eb-2013-101494>
- Hildebrandt, S. A., & Eom, M. (2011). Teacher professionalization: Motivational factors and the influence of age. *Teaching and Teacher Education, 27*(2), 416–423. <https://doi.org/10.1016/j.tate.2010.09.011>

- Hirshberg, M. J., Flook, L., Enright, R. D. & Davidson, R. J. (2020). Integrating mindfulness and connection practices into preservice teacher education improves classroom practices. *Learning and Instruction, 66*, 101298. <https://doi.org/10.1016/j.learninstruc.2019.101298>
- Hodgins, H. S., & Knee, C. R. (2002). The integrating self and conscious experience. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 87–100). University of Rochester Press.
- Hodgins, H. S., Koestner, R., & Duncan, N. (1996). On the compatibility of autonomy and relatedness. *Personality and Social Psychology Bulletin, 22*(3), 227–237. <https://doi.org/10.1177/0146167296223001>
- Hoffman, M. L. (1982). Development of prosocial motivation: Empathy and guilt. In N. Eisenberg (Ed.), *The development of prosocial behaviour* (pp. 281–313). Academic Press.
- Hölzel B. K., Carmody J., Vangel M., Congleton C., Yerramsetti S. M., Gard T., & Lazar, S.W. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research: Neuroimaging, 191*(1), 36–43. <https://doi.org/10.1016/j.psychresns.2010.08.006>
- Ida, Z. S. (2017). What makes a good teacher? *Universal Journal of Educational Research 5*(1), 141–147. <https://doi.org/10.13189/ujer.2017.050118>
- Inan, B. (2014). A cross-cultural understanding of the characteristics of a good teacher. *The Anthropologist, 18*(2), 427–432. <https://doi.org/10.1080/09720073.2014.11891561>
- In de Wald, J., den Brok, P., Hooijer, J., Martens, R., & van den Beemt, A. (2014). Teachers' engagement in professional learning: Exploring motivational

profiles. *Learning and Individual Differences*, 36, 27–36.

<https://doi.org/10.1016/j.lindif.2014.08.001>

Jennings, P. A., Brown, J. L., Frank, J. L., Doyle, S., Oh, Y., Davis, R., Rasheed, D.,

DeWeese, A., DeMauro, A. A., Cham, H., & Greenberg, M. T. (2017).

Impacts of the CARE for teachers program on teachers' social and emotional competence and classroom interactions. *Journal of Educational Psychology*,

109(7), 1010–1028. <https://doi.org/10.1037/edu0000187>

Joyce, S., Shand, F., Lal, T. J., Mott, B., Bryant, R. A., & Harvey, S. B. (2019).

Resilience @ work mindfulness program: Results from a cluster randomized controlled trial with first responders. *Journal of medical Internet*

research, 21(2). <https://doi.org/10.2196/12894>

Kalyar, M. N., Ahmad, B., & Kalyar, H. (2018). Does teacher motivation lead to

student motivation? The mediating role of teaching behavior. *Educational*

Studies Moscow, 3, 91–119. [https://doi.org/10.17323/1814-9545-2018-3-91-](https://doi.org/10.17323/1814-9545-2018-3-91-119)

[119](https://doi.org/10.17323/1814-9545-2018-3-91-119)

Kaplan, H., & Madjar, N. (2017). The motivational outcomes of psychological need

support among pre-service teachers: Multicultural and self-determination

theory perspectives. *Frontiers in Education*, 42, 1–14.

<https://doi.org/10.3389/feduc.2017.00042>

Kahn, W. A. (1990). Psychological conditions of personal engagement and

disengagement at work. *Academy of Management Journal*, 33(4), 692–724.

<https://doi.org/10.2307/256287>

Kim, C. H., Kim, D., Yuan, J., Hill, R., Doshi, P., & Thai, C. (2015). Robotics to

promote elementary education pre-service teachers' STEM engagement,

learning, and teaching. *Computers & Education*, 91, 14–31.

<https://doi.org/10.1016/j.compedu.2015.08.005>

Koestner, R., Otis, N., Powers, T. A., Pelletier, L., & Gagnon, H. (2008).

Autonomous motivation, controlled motivation, and goal progress. *Journal of Personality*, 76(5), 1201–1230. <https://doi.org/10.1111/j.1467-6494.2008.00519.x>

Koger, S. M. (2015). A burgeoning eco-psychological recovery movement.

Eco-psychology, 7(4), 245–250. <https://doi.org/10.1089/eco.2015.0021>

Kroon, B., van Woerkom, M., & Menting, C. (2017). Mindfulness as substitute for transformational leadership. *Journal of Managerial Psychology*, 32(4), 284–297. <https://doi.org/10.1108/JMP-07-2016-0223>

Kubo, A., Altschuler, A., Kurtovich, E., Hendlish, S., Laurent, C. A., Kolevska, T., Li, Y., & Avins, A. (2018). A pilot mobile-based mindfulness intervention for cancer patients and their informal caregivers. *Mindfulness*, 9, 1885–1894. <https://doi.org/10.1007/s12671-018-0931-2>

Lazowski, R. A., & Hulleman, C. S. (2016). Motivation interventions in education: A meta-analytic review. *Review of educational research*, 86(2), 602–640. <https://doi.org/10.3102/0034654315617832>

Levesque, C., & Brown, K.W. (2007). Mindfulness as a moderator of the effect of implicit motivational self-concept on day-to-day behavioral motivation. *Motivation and Emotion*, 31, 284–299. <https://doi.org/10.1007/s11031-007-9075-8>

Li, C., Wong, N. K., Liu, D., & Kee, Y. H. (2020) Effects of brief mindfulness meditation on pre-service teachers' attitudes towards including students with autism: The role of basic psychological need satisfaction. *International*

Journal of Disability, Development and Education.

<https://doi.org/10.1080/1034912X.2020.1830950>

Lindsay, E. K., Young, S., Brown, K. W., Smyth, J. M., & Creswell, J. D. (2019).

Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial. *Proceedings of the National Academy of Sciences*, 116(9), 3488–3493. <https://doi.org/10.1073/pnas.1813588116>

Little, D. (1995). Learning as Dialogue: The Dependence of Learner Autonomy on Teacher Autonomy. *System* 23(2), 175–182.

Liu, W.C., Wang, C.J., Tan, O.S., Koh, C., & Ee, J. (2009) A self-determination approach to understanding students' motivation in project work. *Learning and Individual Differences*, 19(1), 139 –145.

<https://doi.org/10.1016/j.lindif.2008.07.002>

MacBeath, J. (2012). *Future of teaching profession*. Educational International Research Institute and University of Cambridge.

Mackenzie, E. R., Fegley, S., Stutesman, M., & Mills, J. (2020). Present-moment awareness and the prosocial classroom: Educators' lived experience of mindfulness. *Mindfulness* 11, 2755–2764.

<https://doi.org/10.1007/s12671-020-01483-7>

Martin, J. R. (1997). Mindfulness: A proposed common factor. *Journal of Psychotherapy Integration*, 7(4), 291–312.

<https://doi.org/10.1023/B:JOPI.0000010885.18025.bc>

Matiz, A., Fabbro, F., Paschetto, A., Cantone, D., Paolone, A. R., & Crescentini, C. (2020). Positive Impact of Mindfulness Meditation on Mental Health of Female Teachers during the COVID-19 Outbreak in Italy. *International*

Journal of Environmental Research and Public Health, 17(18), 6450.

<https://doi.org/10.3390/ijerph17186450>

Mayer, J. D., Chabot, H. F., & Carlsmith, K. (1997). Conation, affect, and cognition in personality. In G. Matthews (Ed.), *Cognitive science perspectives on personality and emotion* (pp. 31–63). Elsevier Science.

McLachlan, S., & Hagger, M. (2010). Effects of an autonomy-supportive intervention on tutor behaviors in a higher education context. *Teaching and Teacher Education*, 26, 1204–1210.

<https://doi.org/10.1016/j.tate.2010.01.006>

Mihić, J., Oh, Y., Greenberg, M., & Kranželić, V. (2020). Effectiveness of mindfulness-based social-emotional learning program CARE for teachers within Croatian context. *Mindfulness*, 11, 2206–2218.

<https://doi.org/10.1007/s12671-020-01446-y>

Miller, J. J., Fletcher, K., & Kabat-Zinn, J. (1995). Three-year follow-up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders. *General hospital psychiatry*, 17 (3), 192–200. [https://doi.org/10.1016/0163-8343\(95\)00025-M](https://doi.org/10.1016/0163-8343(95)00025-M)

Molenaar, P. C. M. (2008). Consequences of the ergodic theorems for classical test theory, factor analysis, and the analysis of developmental processes. In S. M. Hofer & D. F. Alwin (Eds.), *Handbook of cognitive aging: Interdisciplinary perspectives* (pp. 90–104). SAGE Publications.

Molenaar, P. C. M., Huizenga, H. M., & Nesselroade, J. R. (2003). The relationship between the structure of interindividual and intraindividual variability: A theoretical and empirical vindication of Developmental Systems Theory. In

- U. M. Staudinger & U. Lindenberger (Eds.), *Understanding human development* (pp. 339–360). Kluwer.
- Neves de Jesus, S., & Lens, W. (2005). An integrated model for the study of teacher motivation. *Applied Psychology, 54*, 119–134. <https://doi.org/10.1111/j.1464-0597.2005.00199.x>
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*, 328–346. <http://doi.org/10.1037/0033-295X.91.3.328>.
- Niemiec, R. M. (2014). *Mindfulness and character strengths: A practical guide to flourishing*. Hogrefe Publishing.
- Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education, 7*(2), 133–144. <https://doi.org/10.1177/1477878509104318>
- O'Brien K., Hochachka G. (2011). Integral adaptation to climate change, *Journal of Integral Theory and Practice, 5*(1), 89–102.
- Oktay, A. (2015). Foreign language teaching: A problem in Turkish education. *Procedia - Social and Behavioral Sciences, 174*, 584–593. <https://doi.org/10.1016/j.sbspro.2015.01.587>
- Pang, D., & Ruch, W. (2019). Fusing character strengths and mindfulness interventions: Benefits for job satisfaction and performance. *Journal of Occupational Health Psychology, 24*(1), 150–162. <http://dx.doi.org/10.1037/ocp0000144>
- Patrick, B. C., Hisley, J., & Kempler, T. (2000). "What's everybody so excited about?": The effects of teacher enthusiasm on student intrinsic motivation and

vitality. *Journal of Experimental Education*, 68(3), 217–236.

<https://doi.org/10.1080/00220970009600093>

Pelletier, L. G., Séguin-Lévesque, C., & Legault, L. (2002). Pressure from above and pressure from below as determinants of teachers' motivation and teaching behaviours. *Journal of Educational Psychology*, 94(1), 186–196.

<https://doi.org/10.1037/0022-0663.94.1.186>

Pennington, M. C. (1995). *Work satisfaction, motivation and commitment in English as a second language* (ED404850). ERIC. <https://eric.ed.gov/?id=ED404850>

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. American Psychological Association; Oxford University Press.

Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational Researcher*, 38(2), 109–119.

<https://doi.org/10.3102/0013189X09332374>

Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49(2), 327–340.

<https://doi.org/10.5465/AMJ.2006.20786079>

Pithers, R.T., & Soden, R. (1998). Scottish and Australian teacher stress and strain: A comparative study. *British Journal of Educational Psychology*, 68(2), 269–279. <https://doi.org/10.1111/j.2044-8279.1998.tb01289.x>

Polit-O'Hara, D., & Beck, C. T. (2006). *Essentials of nursing research: Methods, appraisal, and utilization*. Lippincott Williams Wilkins.

- Price, D. D., Finniss, D. G., & Benedetti, F. (2008). A comprehensive review of the placebo effect: Recent advances and current thought. *Annual Review of Psychology*, *59*, 565–90.
<https://doi.org/10.1146/annurev.psych.59.113006.095941>
- Qin, T. Y., Rashid, Z., Ibrahim, Z., Jasmine, S., Shing, N. G., Menon, S., & Abdelaziz, N. (2015). Teachers' background factors and its relation to motivation. *Malaysian Online Journal of Educational Management*, *3*(2), 1–17.
- Roth, G. (2014). Antecedents and outcomes of teachers' autonomous motivation: A self-determination theory analysis. In P. W. Richardson, S. A. Karabenick, & H. M. G. Watt (Eds.), *Teacher motivation: Theory and practice* (pp. 36–51). Routledge.
- Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by increasing. *Motivation and Emotion*, *28*(2), 147–169.
<https://doi.org/10.1023/B:MOEM.0000032312.95499.6f>
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, *43*(3), 450–461. <http://doi.org/10.1037/0022-3514.43.3.450>
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, *57*, 749–761.
<https://doi.org/10.1037/0022-3514.57.5.749>
- Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, *25*, 54–67. <http://dx.doi.org/10.1006/ceps.1999.1020>

- Ryan R. M., & Deci E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2008). A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology* 49(3), 186–193. <https://doi.org/10.1037/a0012753>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Salmon, P., Hanneman, S., & Harwood, B. (2010). Associative/dissociative cognitive strategies in sustained physical activity: literature review and proposal for a mindfulness-based conceptual model. *Sport Psychology*, 24(2), 127–156. <https://doi.org/10.1123/tsp.24.2.127>
- Schneider, J., Malinowski, P., Watson, P. M., & Lattimore, P. (2019). The role of mindfulness in physical activity: A systematic review. *Obesity Reviews*, 20(3), 448–463. <https://doi.org/10.1111/obr.12795>
- Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre-and early adolescents' well-being and social and emotional competence. *Mindfulness*, 1(3), 137–151. <https://doi.org/10.1007/s12671-010-0011-8>
- Schultz, P. P., & Ryan, R. M. (2015). The “why,” “what,” and “how” of healthy self-regulation: Mindfulness and well-being from a Self-Determination Theory perspective. In B. D. Ostafi, M. D. Robinson, & B. P. Meier (Eds.), *Handbook of mindfulness and self-regulation* (pp. 81–94), Springer Science+ Business Media. https://doi.org/10.1007/978-1-4939-2263-5_7

- Shapiro, S. L., & Schwartz, G. E. (2000). The role of intention in self-regulation: Toward intentional systemic mindfulness. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 253–273). Academic Press. <https://doi.org/10.1016/B978-012109890-2/50037-8>
- Sharma, N., Rana, D. K., & Ghai, S. (2020). Experimental research designs. In S. Kaur (Ed.), *Nursing research in 21st century* (pp. 150–162). CBS Publishers & Distributors.
- Sheldon, K. M., Houser-Marko, L., & Kasser, T. (2006). Does autonomy increase with age? Comparing the goal motivations of college students and their parents. *Journal of Research in Personality*, *40*(2), 168–178. <https://doi.org/10.1016/j.jrp.2004.10.004>
- Sheldon, K. M., Osin, E. N., Gordeeva, T. O., Suchkov, D. D., & Sychev, O. A. (2017). Evaluating the dimensionality of self-determination theory's relative autonomy continuum. *Personality and Social Psychology Bulletin*, *43*(9), 1215–1238. <https://doi.org/10.1177/0146167217711915>
- Short, P. M. (1994). Defining Teacher Empowerment. *Education*, *114*(4), 488–492.
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, *85*(4), 571–581. <https://doi.org/10.1037/0022-0663.85.4.571>
- Song, X., Zheng, M., Zhao, H., Yang, T., Ge, X., Li, H., & Lou, T. (2020). Effects of a four-day mindfulness intervention on teachers' stress and affect: A pilot study in Eastern China. *Frontiers in Psychology*, *11*, 1298. <https://doi.org/10.3389/fpsyg.2020.01298>

- Sørebø, Ø., Halvari, H., Flaata Gulli, V., & Kristiansen, R. (2009). The role of self-determination theory in explaining teachers' motivation to continue to use e-learning technology. *Computers & Education*, 53(4), 1177–1187.
<https://doi.org/10.1016/j.compedu.2009.06.001>
- Steinmayr, R., & Spinath, B. (2009). The importance of motivation as a predictor of school achievement. *Learning and Individual Differences*, 19(1), 80–90.
<https://doi.org/10.1016/j.lindif.2008.05.004>
- Stone, D. N., Deci, E. L., Ryan, R. M. (2009). Beyond talk: Creating autonomous motivation through self-determination theory. *Journal of General Management* 34(3), 75–91. <https://doi.org/10.1177/030630700903400305>
- Taylor, C., Harrison, J., Haimovitz, K., Oberle, E., Thomson, K., Schonert-Reich, K., & Rooser, R. W. (2016). Examining ways that a mindfulness-based intervention reduces stress in public school teachers: A mixed-methods study. *Mindfulness*, 7, 115–129. <https://doi.org/10.1007/s12671-015-0425-4>
- Thera, N. (1972). *The power of mindfulness (Mindfulness series 3)*. Unity Press.
- Tsai, E., Fung, L., & Chow, L.P. (2006). Sources and manifestations of stress in female kindergarten teachers. *International Education Journal*, 7, 364–370.
- Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202–248.
<https://doi.org/10.3102/00346543068002202>
- Wamsler, C., & Brink, E. (2018). Mindsets for sustainability: Exploring the link between mindfulness and sustainable climate adaptation. *Ecological Economics*, 151, 55–61. <https://doi.org/10.1016/j.ecolecon.2018.04.029>
- Wang, C. K. J., & Liu, W. C. (2008). Teachers' motivation to teach national education in Singapore: a self-determination theory approach. *Asia Pacific*

Journal of Education, 28(4), 395–410.

<https://doi.org/10.1080/02188790802469052>

Weinstein N., Brown K.W., Ryan R. M. (2009). A multi-method examination of mindfulness on stress attribution, coping and emotional well-being, *Journal of Research in Personality*, 43(3), 374–385.

<https://doi.org/10.1016/j.jrp.2008.12.008>

Weinstein, N. & Ryan, R. M. (2011). A self-determination theory approach to understanding stress incursion and responses. *Stress and Health*, 27, 4–17.

<https://doi.org/10.1002/smi.1368>

Westen, D. (1999). The scientific status of unconscious processes: Is Freud really dead? *Journal of the American Psychoanalytic Association*, 47(4), 1061–

1106. <https://doi.org/10.1177/000306519904700404>

Wilber, K. (2000). *Integral psychology: Consciousness, spirit, psychology, therapy*. Shambhala.

Worth, J., & Van den Brande, J. (2020) Teacher autonomy: How does it relate to job satisfaction and retention? National Foundation for Educational Research.

https://tdtrust.org/wp-relate_to_job_satisfaction_and_retention-1.pdf

Wright, J. J., Sadlo, G., & Stew, G. (2006). Challenge-skills and mindfulness: An exploration of the conundrum of flow process. *OTJR: Occupation, Participation and Health*, 26(1), 25–32.

<https://doi.org/10.1177/153944920602600104>

Van den Broeck, A., verstuyf, M., De Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-Related Basic Need Satisfaction Scale. *Journal*

of Occupational and Organizational Psychology, 83(4), 981–1002.

<https://doi.org/10.1348/096317909X481382>

Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist*, 41(1), 19–31.

https://doi.org/10.1207/s15326985ep4101_4

Vansteenkiste, M., & Ryan R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, 23(3), 263–28.

<http://dx.doi.org/10.1037/a0032359>

Verstuyf, J., Patrick, H., Vansteenkiste, M., & Teixeira, P. J. Motivational dynamics of eating regulation: A self-determination theory perspective. *International Journal of Behavioural Nutrition and Physical Activity*, 9, 21.

<https://doi.org/10.1186/1479-5868-9-21>

Zhang, J., Ding, W., Li, Y., & Wu, C. (2013). Task complexity matters: The influence of trait mindfulness on task and safety performance of nuclear power plant operators. *Personality and Individual Differences*, 55(4), 433–439. <https://doi.org/10.1016/j.paid.2013.04.004>

Zhao, H, Liu, W, Li, J, Yu, X. (2019). Leader–member exchange, organizational identification, and knowledge hiding: The moderating role of relative leader–member exchange. *Journal of Organizational Behavior*, 40, 834–848.

<https://doi.org/10.1002/job.2359>

Zyngier, D (2011). (Re)conceptualizing risk: Left numb and unengaged and lost in a no-man’s-land or what (seems to) work for at-risk students. *International*

Journal of Inclusive Education, 15(2), 211–231.

<http://dx.doi.org/10.1080/13603110902781427>

APPENDICES

Appendix A

Ethics Committee Approval Form



Bilkent Üniversitesi
Akademik İşler Rektör Yardımcılığı

Tarih : 8 Mart 2021
Gönderilen : Zeynep Olgun Pamuk
Tez Danışmanı : Aikaterini Michou
Gönderen : H. Altay Güvenir
 İnsan Araştırmaları Etik Kurulu Başkanı
Konu : “*Mindfulness and ...*” çalışması etik kurul onayı

Üniversitemiz İnsan Araştırmaları Etik Kurulu, 8 Mart 2021 tarihli görüşme sonucu, “*Mindfulness and English Teachers’ Quality of Motivation: An Experimental Study*” isimli çalışmanız kapsamında yapmayı önerdiğiniz etkinlik için etik onay vermiş bulunmaktadır. Onay, ekte verilmiş olan çalışma önerisi, çalışma yürütücüleri ve bilgilendirme formu için geçerlidir.

Bu onay, yapmayı önerdiğiniz çalışmanın genel bilim etiği açısından bir değerlendirmedir. Çalışmanızda, kurulumuzun değerlendirmesi dışında kalabilen özel etik ve yasal sınırlamalara uymakla ayrıca yükümlüsünüz.

Kovid-19 salgını nedeniyle konulmuş olan kısıtlamaların yürürlükte olduğu süre içinde, tüm komite toplantıları elektronik ortamda yapılmaktadır; aşağıda isimleri bulunan Bilkent Üniversitesi Etik Kurulu Üyeleri adına bu yazıyı imzalama yetkisi kurul başkanındadır.

Etik Kurul Üyeleri:

Ünvan / İsim	Bölüm / Uzmanlık	
Prof.Dr. H. Altay Güvenir	Bilgisayar Mühendisliği	Başkan
Prof.Dr. Erdal Onar	Hukuk	Üye
Prof.Dr. Haldun Özaktaş	Elektrik ve Elektronik Müh.	Üye
Doç.Dr. Işık Yuluğ	Moleküler Biyoloji ve Genetik	Üye
Dr. Öğr. Üyesi Burcu Ayşen Ürgen	Psikoloji	Üye
Doç.Dr. Çiğdem Gündüz Demir	Bilgisayar Mühendisliği	Yedek Üye
Dr. Öğr. Üyesi A.Barış Özbilen	Hukuk	Yedek Üye

Kurul karar/toplantı No: 2021_03_08_01

Appendix B

Informed Consent Form

Dear Colleague,

The study you are about to kindly contribute to is a master's thesis that aims to investigate teachers' perception and attitudes towards teaching. The results of this study may be presented in scientific conferences or be published in scientific journals but in any report of the findings it will not be possible to identify individual participants.

The data collection process is made up of five steps, and it takes approximately 15 to 20 minutes. The steps are, consecutively, i) a short demographic questionnaire, ii) a questionnaire about your teaching experience, iii) a listening record, iv) pondering upon a lesson plan, and v) a final questionnaire about the lesson plan.

This is to request your participation in this research, which is voluntary, anonymous and you may withdraw at any time. The information and answers you provide in the survey will be kept confidential. There are no risks involved in participating in this study. Your relationship with the institution that you work will not be affected if you decide not to participate or if you withdraw your participation.

If you have any questions regarding the survey or the study, please do not hesitate to contact me.

I will be glad to share the results of the study if you write to me at the above address. Thank you in advance for sparing some of your precious time for this research.

Zeynep Olgun Pamuk

Bilkent University, Curriculum and Instruction (MA)

Teacher's name.....

Signature of Teacher

Appendix C

Demographic Survey

1. What is your gender?

- Male Female Prefer not to state

2. How old are you?

- Younger than 25 25-30 31-35 36-40 41-45
 46 and more

3. What type of an institution are you currently working for?

- State / Governmental Private / Foundational

4. What age group are you currently teaching?

- Kindergarten Primary School Secondary School High School
 University / College Other (please specify below)

5. How long have you been teaching?

- Less than a year 1 - 5 year(s) 6 - 10 years 11 - 15 years
 16 - 20 years 21 years or over

6. What is the latest educational degree you have completed?

- Bachelor's degree Master's degree Doctoral degree
 Other (please specify below)

7. How many class hours do you usually teach per week (in your current workplace)?

- 4 - 8 hours 9 - 15 hours 16 - 25 hours 26 hours or more

8. Have you ever had any meditation experience?

- Yes, I have. I am not certain. No, I haven't

9. If you have had a meditation experience, how often?

- None Only once Several times Often Regularly

10. How many hours per day can you spend for your pleasure?

- Less than an hour 1 - 2 hour(s) 3 - 4 hours 5 -6 hours
 7 or more

Appendix D

Pre-test - Comprehensive Relative Autonomy Index

In general, I prepare myself for my English class because...	Strongly disagree	Disagree	Neither agree, nor disagree	Agree	Strongly agree
1. Because important people (i.e., students, managers, other colleagues) will like me better if I do so.					
2. Because I don't want to feel bad about myself.					
3. Because it boosts my self-esteem.					
4. Because it is meaningful to me.					
5. Because it is a pleasure to do it.					
6. Because I would feel guilty if I didn't do it.					
7. Because I want to prove to myself that I am capable.					
8. Because it is my personal choice to do it.					
9. Because if I don't do so, others (i.e., students, managers, other colleagues) will get mad.					
10. Because it is interesting.					
11. Because I want to feel good about myself.					
12. Because it is personally important to me.					
13. Because I'll get in trouble if I don't do so.					
14. Because I would feel like a failure if I didn't do it.					
15. Because it is fun.					
16. Because I want to feel proud of myself.					
17. Because I strongly value it.					
18. Because I would feel ashamed if I didn't do it.					
19. Because I enjoy it.					
20. Because I don't have any choice but to do it.					

Appendix E

Guided Mindfulness Motivation

Hello. How are you today? It is a pleasure to be with you. Together, we are going to spare the next 10 minutes for our well-being, calmness, and awareness. So, relax and enjoy every second of it. Sit comfortably on your chair. Let your body extend and relax where it is. Relax every part of your body starting from your toe. Imagine every breath you take comforts a part of your body. So, breath in deeply to get the most of this experience.

Now focus on your toes, let them be and relax them, now... your knees, your legs, your hip, your upper body, your back, your neck, your arms, hands, fingers. Realize their existence, salute them, and let them be light and comfy. Now focus on your face, let your face muscles unwind. Let the breath you take in fill your whole existence with happiness, ease, joy, and love. Breath in and out few times with this awareness on your mind. Your body is light, might, happy and sound. (break)

Now realize what is around you. The room you are in. The voices you hear. Perhaps some bird tweet, or some people's talking voice or perhaps a construction going on. Whatever it is, just hear it, be aware of it, do not put a label whether it is good or bad, just be aware of it. IS there a particular smell in the room? Again, don't judge it as good or bad, just be aware of it. Where does the light come from? From your back, front, from the side? How does the chair or the sofa you sit-on feel? Soft and embracing, or perhaps a little hard? Feel the surrounding with all your senses...The sight, touch, smell, sound be aware of things around you. Watch your breath calmly while you witness the sensations of the environment.

From the outer space, we are ready to step into our inner space now. Our inner world. Our mind. Watch the thoughts walking by your mind. Don't let any thoughts stay for long. Welcome them form the front door and see them off from the back door. Don't talk to them-either just be aware of your thoughts as a detached observer. Remember you are not your thoughts. You are not your mind. But as a good host and friend, be aware of them fully.

Usually, it is our thoughts which lead to our emotions. So now, it is time to look at the emotions. Listen to your inner self, how do you feel now? Forget about the positive and negative feelings for now. We are not chasing after positive or negative. We are here to explore, see and notice. Name your emotions. Anxiety, fear, frustration, confidence, curiosity, determination, doubt, jealousy, sadness, grief, encouragement, joy, boredom, hope, disgust. Whatever your feeling is, just be aware of it. Remember you are only a detached observer. You never are the feeling itself. So let your feeling be, let it say hi to you, then let it pass. Don't hold on to it, just let it go. How does it feel to let go? How do you feel when you set them free? Sense your new feelings now. Again, as a detached observer. As you breath in and breath out, you realize nothing is permanent. This moment shall pass like every moment else. Slowly and gently invite yourself back to the existence of the room around you. When you feel yourself ready, open your eyes to the most important one, to you.

Appendix F

‘The Power of Yet’ by Prof. Carol Susan Dweck

Hello. How are you today? It is a pleasure to be with you. This talk was adapted from Carol Dweck’s talk titled “the power of yet”. The power of yet.

I heard about a high school in Chicago where students had to pass a certain number of courses to graduate, and if they didn't pass a course, they got the grade "Not Yet." And I thought that was fantastic, because if you get a failing grade, you think, I'm nothing, I'm nowhere. But if you get the grade "Not Yet", you understand that you're on a learning curve. It gives you a path into the future.

"Not Yet" also gave me insight into a critical event early in my career, a real turning point. I wanted to see how children coped with challenge and difficulty, so I gave 10-year-olds problems that were slightly too hard for them. Some of them reacted in a shockingly positive way. They said things like, "I love a challenge," or "You know, I was hoping this would be informative." They understood that their abilities could be developed. They had what I call a growth mindset. But other students felt it was tragic, catastrophic. From their more fixed mindset perspective, their intelligence had been up for judgment, and they failed. Instead of luxuriating in the power of yet, they were gripped in the tyranny of now.

So, what do they do next? I'll tell you what they do next. In one study, they told us they would probably cheat the next time instead of studying more if they failed a test. In another study, after a failure, they looked for someone who did worse than they did so they could feel really good about themselves. And in study after study, they have run from difficulty. Scientists measured the electrical activity from the brain as students confronted an error. On the brains of students with the fixed mindset there's hardly any activity. They run from the error. They don't engage with it. But on the brains of the students with growth mindset, scientists observed a very active engagement and a deep activity on the brain. Their brain is on fire with yet. They engage deeply. They process the error. They learn from it, and they correct it.

How are we raising our children? Are we raising them for now instead of yet? Are we raising kids who are obsessed with getting As? Are we raising kids who don't know how to dream big dreams? Their biggest goal is getting the next A, or the next test score? And are they carrying this need for constant validation with them into their future lives? Maybe, because employers are coming to me and saying, "We have already raised a generation of young workers who can't get through the day without an award."

So, what can we do? How can we build that bridge to yet?

Here are some things we can do. First of all, we can praise wisely, not praising intelligence or talent. That has failed. Don't do that anymore. But praising the process that kids engage in, their effort, their strategies, their focus, their perseverance, their improvement. This process praise creates kids who are hardy and resilient.

There are other ways to reward yet. We recently teamed up with game scientists from the University of Washington to create a new online math game that rewarded yet. In this game, students were rewarded for effort, strategy, and progress. The usual math game rewards you for getting answers right, right now, but this game rewarded process. And we got more effort, more strategies, more engagement over longer periods of time, and more perseverance when they hit really, really hard problems.

Just the words "yet" or "not yet" we're finding, give kids greater confidence, give them a path into the future that creates greater persistence. And we can actually change students' mindsets. In one study, we taught them that every time they push out of their comfort zone to learn something new and difficult, the neurons in their brain can form new, stronger connections, and over time, they can get smarter.

Look what happened: In this study, students who were not taught this growth mindset continued to show declining grades over this difficult school transition, but those who were taught this lesson showed a sharp rebound in their grades. We have shown this now, this kind of improvement, with thousands and thousands of kids, especially struggling students.

So, let's talk about equality. In the United States, there are groups of students who chronically underperform, for example, children in inner cities, or children on Native American reservations. And they've done so poorly for so long that many people think it's inevitable. But when educators create growth mindset classrooms steeped in yet, equality happens. And here are just a few examples. In one year, a kindergarten class in Harlem, New York scored in the 95th percentile on the national achievement test. Many of those kids could not hold a pencil when they arrived at school. In one year, fourth-grade students in the South Bronx, way behind, became the number one fourth-grade class in the state of New York on the state math test. In a year, to a year and a half, Native American students in a school on a reservation went from the bottom of their district to the top, and that district included affluent sections of Seattle. So the Native kids outdid the Microsoft kids.

This happened because the meaning of effort and difficulty were transformed. Before, effort and difficulty made them feel dumb, made them feel like giving up, but now, effort and difficulty, that's when their neurons are making new connections, stronger connections. That's when they're getting smarter.

I received a letter recently from a 13-year-old boy. He said, "Dear Professor Dweck, I appreciate that your writing is based on solid scientific research, and that's why I decided to put it into practice. I put more effort into my schoolwork, into my relationship with my family, and into my relationship with kids at school, and I experienced great improvement in all of those areas. I now realize I've wasted most of my life."

Let's not waste any more lives, because once we know that abilities are capable of such growth, it becomes a basic human right for children, all children, to live in places that create that growth, to live in places filled with "yet".

Thank you.

Appendix G

Lesson Plan Preparation after the Condition

Now imagine that you **are preparing** for a lesson with A2 level students. This is a **listening lesson** about the history of chocolate.

Below you will find some questions related to your lesson conditions, design and content. Please choose one answer for each question; the one you believe is the best for your context.

1- **How many** students would you rather have in your class?

a- 20

b- 10

c- 8

d- Other, please specify.....

*Perhaps an explanation box for each item can be placed so that the willing teachers explain their reasons for the option they choose freely.

2- What is the **age group** that you are teaching?

a- Kindergarten

b- Elementary/Mid school

c- Highschool

d- College

e- Other, please specify.....

3- **How long** would you prefer your lesson to be?

a- 30 mins

b- 40 mins

c- 45 mins

d- 60 mins

e- Other, please specify.....

4- How would you **start** the introduction of the lesson?

a- By stating some interesting questions about chocolate

b- By telling an anecdote from your own life about chocolate

c- By showing them a video about chocolate history

d- By bringing some chocolate to the classroom to have them taste it.

e- Other, please specify.....

5- Would you prefer to pre-teach vocabulary?

a- Yes, because...

b- No, because...

c- Other, please specify.....

- 6- How long would you rather the audio recording be?
- a- 3 mins
 - b- 7 mins
 - c- 15 mins
 - d- Other, please specify.....
- 7- How many times would you prefer your students to listen to the recording?
- a- Just once
 - b- Twice
 - c- Until they understand it.
 - d- Other, please specify.....
- 8- Which type of questions would you ask after the listening passage?
- a- True False Questions
 - b- Open-ended questions
 - c- Wh- Questions
 - d- Matching
 - e- Others, specify
Please specify the reason of your choice.
- 9- Which one is more important for you?
- a- A holistic understanding of the recording
 - b- A detailed understanding of the recording
 - c- I believe every sentence need to be exploited in detail for a full understanding.
 - d- Other, please specify.....

10- How would you like to design the production phase of your lesson?

--

11- Would you like to add any other details for your lesson?

--

Appendix H

Post-test - Comprehensive Relative Autonomy Index

When I prepared THIS learning material (THE HISTORY OF CHOCOLATE LISTENING MATERIAL) for my English class, I did it because...	Strongly disagree	Disagree	Neither agree, nor disagree	Agree	Strongly agree
1. Because the research team will like me better if I do so.					
2. Because I don't want to feel bad about myself.					
3. Because it boosts my self-esteem.					
4. Because it is meaningful to me.					
5. Because it is a pleasure to do it.					
6. Because I would feel guilty if I didn't do it.					
7. Because I want to prove to myself that I am capable.					
8. Because it is my personal choice to do it.					
9. Because if I don't do so, the research team will disapprove me.					
10. Because it is interesting.					
11. Because I want to feel good about myself.					
12. Because it is personally important to me.					
13. Because the research team won't praise me.					
14. Because I would feel like a failure if I didn't do it					
15. Because it is fun.					
16. Because I want to feel proud of myself.					
17. Because I strongly value it.					
18. Because I would feel ashamed if I didn't do it.					
19. Because I enjoy it.					
20. Because I don't have any choice but to do it.					