

Teaching English Language Journal

ISSN: 2538-5488 – E-ISSN: 2538-547X – <http://tel.journal.org>

© 2024 – Published by Teaching English Language and Literature Society of Iran



Please cite this paper as follows:

Soleimani, H., Allahveysi, S. P., & Kamran, K. (2024). Teacher education and multiple intelligences: A case of Iranian EFL teachers' academic optimism and psychological wellbeing. *Teaching English Language*, 18(2), 185-220. <https://doi.org/10.22132/tel.2024.416990.1520>

Research Paper

Teacher Education and Multiple Intelligences: A Case of Iranian EFL Teachers' Academic Optimism and Psychological Wellbeing

Habib Soleimani¹

Department of English and linguistics, Faculty of language and literature, University of Kurdistan, Sanandaj, Iran

Sayed Pedram Allahveysi

Ph.D. Candidate of Applied Linguistics, Department of Language and Linguistics, University of Essex, Colchester, UK

Kimia Kamran

M.A. holder of Applied Linguistics. Department of English Language and Literature, Ilam University, Ilam, Iran

Abstract

This study investigated the potential benefits of integrating Multiple Intelligences (MI)-based approaches into teacher training programs for enhancing English language teaching (EFL) in Iran. Twenty in-service EFL teachers participated in a quasi-experimental pre-test post-test control group design. The experimental group received an 8-week training program focused on MI theory and its application in EFL practices. The control group received training on the influence of psychological factors on student learning. Both groups exhibited significant improvements in academic optimism and psychological wellbeing after the training program. However, the experimental group demonstrated larger effect sizes for both measures, suggesting a potentially stronger positive impact of the MI-based training. One-way analyses of covariance (ANCOVA) controlling for pre-test scores further confirmed a significant effect of the intervention program on both academic optimism and psychological wellbeing. These findings highlight

¹ Corresponding author: h.soleimani@uok.ac.ir

the potential value of incorporating MI principles into EFL teacher training programs to foster not only teacher development but also their overall well-being.

Keywords: Multiple Intelligences (MI), Teacher Training, EFL Teaching, Academic Optimism, Psychological Wellbeing, Iran

Received: April 12, 2024

Accepted: August 18, 2024



1. Introduction

The intricate tapestry of successful teaching and learning necessitates a nuanced approach that acknowledges the multifaceted nature of individual differences (Dang et al., 2022). Cognitive abilities undeniably play a significant role, but recent research underscores the profound influence of a teacher's emotional state and well-being on both their effectiveness and student outcomes (Boyle et al., 1995; Fathi et al., 2020; Graziano et al., 2022; McCarthy et al., 2014). This recognition underscores the critical need for teacher education programs that equip educators with the necessary tools to navigate the emotional complexities inherent in teaching while simultaneously fostering a positive and supportive learning environment (Grossman et al., 2019; Liu et al., 2023).

Teacher academic optimism, defined by a belief in student potential and the efficacy of instruction (Hoy et al., 2006), has emerged as a cornerstone construct influencing student achievement and teacher well-being (Smith & Hoy, 2007; Tschannen et al., 2013; Zee & Koomen, 2016). Research suggests that teachers with higher academic optimism are more likely to utilize effective instructional strategies and demonstrate greater resilience in the face of challenges (McGuigan & Hoy, 2006; Song, 2022). Furthermore, Zhang (2021) identifies a positive correlation between academic optimism and teacher psychological wellbeing, a multidimensional construct encompassing

Soleimani et al.

work satisfaction, perceived competence, and a sense of fulfillment (Gilbert et al., 2011; McInerney et al., 2018). This link is crucial, as Greenier et al. (2021) demonstrate that higher teacher psychological wellbeing translates into greater work engagement and ultimately, a more positive learning environment for students (McInerney et al., 2015; Nazari & Alizadeh Oghyanous, 2021).

Despite the burgeoning body of research on these constructs, a critical gap remains in our understanding of how teacher education programs can cultivate both academic optimism and psychological wellbeing. Traditional approaches often lack a systematic framework for addressing individual learning styles and intelligences within the classroom (Loughran & Hamilton, 2016). This presents a noteworthy challenge, as Korthagen et al. (2006) emphasize, highlighting the need for innovative teacher training programs that bridge the theory-practice gap and enhance practical application in the classroom.

Howard Gardner's theory of Multiple Intelligences (MI) offers a promising framework for addressing this gap. MI posits the existence of eight distinct intelligences, encompassing areas like language, logic, bodily-kinesthetic, musical, interpersonal, and intrapersonal (Gardner, 1983). By incorporating MI principles into teacher education programs, educators can develop a more comprehensive understanding of their students' diverse learning styles and strengths (Armstrong, 2009; Soleimani & Allahveysi, 2022). This empowered knowledge equips them to design lessons that cater to these individual differences, potentially fostering a more engaging and effective learning environment for all students (Mavroveli et al., 2007).

This study aims to investigate the impact of teacher education programs incorporating MI-based strategies on two crucial outcomes: teacher academic optimism and psychological wellbeing. To date, research exploring the

specific influence of MI on these constructs within the context of EFL teacher education remains limited. By addressing this gap, our research contributes to the ongoing dialogue on optimizing teacher training programs for the 21st century classroom.

We hypothesize that teacher education programs infused with MI principles will positively impact both teacher academic optimism and psychological wellbeing. By equipping educators with the tools to address individual student needs and foster a more inclusive learning environment, MI-based strategies have the potential to empower teachers, bolster their sense of self-efficacy, and ultimately enhance the educational experience for both teachers and students. Thus, the current study tried to answer the following questions:

1. Does teacher education through MI-inspired instruction have a significant impact on teachers' academic optimism?
2. Does teacher education through MI-inspired instruction have a significant impact on teachers' psychological wellbeing?

2. Literature Review

2.1 Multiple intelligences and teacher development

Howard Gardner's theory of Multiple Intelligences (MI) has revolutionized the way we understand learning in the classroom (Gardner, 1983). It dismantles the traditional view of intelligence as a single entity, instead proposing a spectrum of eight distinct intelligences. These intelligences encompass abilities like language, logic, spatial reasoning, bodily movement, music, social interaction, self-reflection, and connection to nature (Gardner, 1999). By acknowledging this diversity, educators can move away from a "one-size-fits-all" approach and embrace a more inclusive pedagogy (Armstrong, 2009). This shift creates learning environments that cater to individual strengths and interests, fostering a more engaging and effective educational experience (Soleimani et al., 2012).

Soleimani et al.

MI theory has significant implications for educational practices. Shearer (2004) proposes a three-pronged approach aligned with Gardner's vision of assessment as a tool for informing instruction. This approach involves developing reliable MI assessments, using them to cultivate self-awareness among teachers about their own intelligences, and finally, leveraging these profiles to design personalized learning experiences for both teachers and students. This method empowers educators to tailor instruction to the unique blend of intelligences present in their classrooms, moving beyond a rigid testing culture.

Sulaiman et al. (2010) delve deeper into the application of MI in science and mathematics education. Their research highlights the importance of employing diverse teaching strategies to address the varied intelligences of students. They argue that by understanding both their own MI profiles and those of their students, teachers can optimize the learning process. This notion is supported by their findings, which reveal a correlation between teachers' MI profiles and their use of MI-based teaching strategies. Yaumi et al. (2018) contribute to the discussion by exploring the impact of MI-based training on Indonesian teachers. Their action research focused on promoting teachers' understanding of learner-centered approaches grounded in MI principles. The results indicated significant improvements in teachers' ability to design and implement student-centered instruction. Interestingly, a mentoring system proved to be particularly effective in enhancing teacher performance.

Building on the strong foundation of MI theory, a growing body of research explores its practical application in educational settings. Studies like Azid et al.'s (2016) investigation into an MI-based enrichment program for students in Malaysia showcase the positive impact of MI on both student learning and teacher development. Their findings suggest that MI-based activities can

foster development across various intelligences, as evidenced by the improvement in students' MI profiles within the treatment group. Teachers also expressed appreciation for the program's emphasis on individual potential and diverse learning experiences.

Similar positive results emerged from Hanafin's (2014) action research project in Irish classrooms. Teachers involved in the project reported a range of student outcomes, including increased motivation, deeper understanding, and improved self-esteem. However, the project also highlighted challenges faced by teachers, such as the need for additional planning time and support. Despite these hurdles, teachers ultimately found the experience transformative, leading to a "mind-shift" in their pedagogical practices. This finding underscores the potential of MI to not only benefit students but also to empower teachers as they embrace more diverse and effective instructional approaches. Hassan et al. (2011) examine the philosophical underpinnings of MI theory in education. They argue that MI offers a framework for educators to design programs that cater to students' individual strengths and learning styles. By embracing MI principles, teachers can present information in a flexible manner, allowing students to leverage their dominant intelligences. The authors posit that this approach not only fosters deeper learning but also equips teachers with a wider range of instructional tools.

In conclusion, these studies illuminate the transformative potential of MI theory in educational practice. By incorporating MI principles into curriculum design and instructional strategies, educators can create learning environments that cater to diverse student needs and foster the development of a wider range of intelligences. Furthermore, MI empowers teachers by providing them with a framework for innovation and expanding their pedagogical repertoire.

2.2 Teacher Academic Optimism

Teacher academic optimism, a burgeoning area of research, has emerged as a key factor influencing both student achievement and teacher development (Hoy et al., 2008). Defined as a teacher's positive belief in their students' academic potential, it encompasses three core dimensions: self-efficacy, trust, and academic emphasis (Straková et al., 2018). Self-efficacy reflects a teacher's confidence in their ability to guide student learning effectively. Trust manifests in a teacher's belief in the capabilities of students and their parents to support the learning process. Finally, academic emphasis highlights the teacher's commitment to fostering a learning environment that prioritizes academic achievement (Feng et al., 2019).

A growing body of research provides compelling evidence for the positive influence of teacher academic optimism on student outcomes. Studies by Hoy et al. (2010), Boonen et al. (2014), and Eren (2014) reveal a significant correlation between teacher academic optimism and student achievement in various academic domains, including language learning. Furthermore, Eren (2014) and Khodarahmi and Zarrinabadi (2016) link teacher academic optimism to student motivation and self-regulated learning, respectively. These findings suggest that teachers who hold high academic optimism create a learning environment that fosters student engagement, self-belief, and ultimately, academic success.

The positive impact of teacher academic optimism extends beyond student outcomes, influencing teacher development as well. Research by Eren (2012) and Li et al. (2023) suggests that teachers with high academic optimism are more likely to engage in professional development and experience higher levels of work engagement. Additionally, Xu and Zhu (2022) and Yang (2022) highlight the potential influence of psychological

capital and well-being on teacher academic optimism, suggesting a positive reciprocal relationship between these constructs.

The importance of fostering a school culture that values academic achievement and empowers teachers is further emphasized by research on school-level factors. Wu and Lin (2018) and Hsieh et al. (2014) demonstrate how distributed leadership and technology leadership can contribute to teacher academic optimism. This scholarship suggests that a positive feedback loop can be created, enhancing both teacher well-being and student success.

Recent studies delve deeper into the interconnectedness of leadership styles and teacher academic optimism. Thien and Chan (2022) and Hong (2017) provide empirical evidence that both distributed leadership and transformational leadership practices on the part of school principals contribute to a more optimistic school climate, which in turn fosters higher levels of academic optimism among teachers. This highlights the importance of leadership practices that empower teachers and create a collaborative school environment focused on student achievement.

Further research explores the link between teacher academic optimism, teacher behavior, and student outcomes. Wagner and Dipaola (2011) and Wagner (2008) reveal that the three dimensions of academic optimism (self-efficacy, trust, and academic emphasis) positively correlate with student achievement and teacher organizational citizenship behavior, such as helping colleagues and going the extra mile for students. This suggests that teacher academic optimism fosters a cycle of positive teacher behaviors that ultimately benefit student learning.

In conclusion, the burgeoning research on teacher academic optimism offers a compelling perspective on its positive impact on both student achievement and teacher development. By fostering a positive and supportive

Soleimani et al.

school environment that cultivates teacher academic optimism, educators can create a powerful force for student success and teacher well-being. Future research can explore additional factors that contribute to teacher academic optimism, as well as investigate the most effective strategies for fostering this crucial characteristic in educators.

2.3 Teacher psychological wellbeing

Teacher psychological wellbeing, encompassing a sense of fulfillment and positive work experience, has emerged as a critical factor in educational outcomes (Dagenais-Desmarais & Savoie, 2012). Defined by five key elements – interpersonal fit, work-related growth, perceived competence, recognition, and a desire for involvement (Cobo-Rendón et al.2020; Dagenais-Desmarais & Savoie, 2012) – it has garnered significant research attention (e.g., Gustems-Carnicer et al., 2019; Jeon et al., 2018; Katsantonis, 2020).

A growing body of research underscores the crucial link between teacher wellbeing and student success (Gustems-Carnicer et al., 2019; Hascher & Waber, 2021). Studies by Kun and Gadanez (2019) and Derakhshan et al. (2022) highlight the positive influence of intrinsic motivation and teacher well-being on both teacher optimism and classroom outcomes. Furthermore, research by Cobo-Rendón et al. (2020) suggests that positive emotions fostered by teacher well-being contribute to student academic achievement and performance.

The positive impact of teacher wellbeing extends beyond student outcomes, playing a vital role in preventing burnout. Research by Sabouripour et al. (2021) reveals a crucial relationship between teacher well-being, academic optimism, and resilience, suggesting that teachers with higher well-being are less susceptible to burnout. Similarly, Lucas-Mangas et al. (2022) and Burić et al. (2019) identify a negative correlation between

psychological well-being and burnout, indicating that higher well-being acts as a protective factor. Xiyun et al. (2022) further emphasize the role of self-efficacy and emotional regulation in predicting well-being, with self-efficacy emerging as the stronger influence.

Recent studies delve deeper into the factors that influence teacher well-being. Wang et al. (2022) investigated the relationship between teacher immunity (resistance to stress), work engagement, and psychological wellbeing in a sample of Asian English teachers. Their findings indicate that both well-being and work engagement positively predict teacher immunity, with well-being identified as the more significant factor in the Asian context. Greenier et al. (2021) conducted a cross-cultural study exploring the influence of well-being and emotion regulation on work engagement among British and Iranian teachers. The study revealed that well-being was a stronger predictor of work engagement in both cultural contexts, highlighting the universality of this relationship.

Examining the potential threats to teacher well-being, Ibrahim et al. (2021) explored the mediating role of psychosocial work settings (job control, demands, and support) on the relationship between stressors (depression, anxiety) and well-being in Malaysian high schools. Their findings suggest that job control and social support can act as buffers, mitigating the negative impact of depression and anxiety on teacher well-being.

In conclusion, teacher psychological well-being stands as a cornerstone of effective teaching. By fostering a positive and supportive work environment that promotes teacher well-being, educational institutions can empower educators and ultimately enhance student success. Future research can explore additional strategies for promoting teacher well-being, further strengthening the foundation for a thriving educational system.

3. Method

This study tried to check the impact of MI-inspired teacher education programs on teachers' academic optimism and psychological wellbeing. The data of the current study are a part of a bigger mixed methods study.

3.1 Participants

This study employed a quasi-experimental pre-test post-test control group design. Twenty in-service English language teachers from Iran's Kurdistan province participated, recruited through a combination of convenience sampling and targeted outreach. Calls for participation were disseminated via social media platforms frequented by the region's EFL teaching community (Instagram and Telegram). Additionally, announcements were posted on the University of Kurdistan's Vice Presidency for Cultural Affairs webpage and the researchers' own social media profiles. The option to join the course remotely via Skype was also offered.

The participants possessed a mean age of 28.5 years ($SD = 3.2$) and displayed a balanced gender distribution (12 females, 8 males). Their teaching experience averaged 4.1 years ($SD = 1.8$). To ensure group equivalence, all participants held degrees in English-related fields (ELT, English Language Literature, English Translation, Applied Linguistics). Importantly, none had received prior training specifically focused on Multiple Intelligences (MI) in EFL teaching, allowing any observed differences in outcomes to be directly attributed to the training provided in this study.

The research adhered to established ethical principles. Written informed consent was obtained from all participants, and the study design and procedures received approval by an Institutional Review Board (IRB), complying with relevant ethical guidelines.

This investigation was conducted within the context of Iran's growing focus on improving English language education. Teacher training programs

play a crucial role in equipping educators with effective instructional methods. The current study aimed to explore the potential benefits of integrating MI-inspired approaches into such programs specifically within the Iranian EFL context.

3.2 Instruments and training materials

This section details the instruments employed to assess participants' characteristics and the training materials utilized for the Teacher Training Course (TTC).

3.2.1 Instruments

Two self-report questionnaires were administered to gather the necessary data. The first instrument, the Howard Gardner Multiple Intelligences Questionnaire (HGM IQ, 2001), was used to assess the participants' dominant intelligences across various domains (as outlined in Table 1). This information served as a baseline for understanding the teachers' individual strengths and learning preferences.

The second questionnaire, the Spiritual Well-Being Scales (SWBS, Ryff, 1989), measured the participants' psychological well-being. This instrument explored dimensions such as autonomy (sense of independence), environmental mastery (ability to manage life situations), personal growth (commitment to self-improvement), purpose in life (having a sense of direction), positive relations (healthy social connections), and self-acceptance (positive self-regard).

Finally, the Teacher Academic Optimism Scale (TAOS-E, Woolfolk Hoy, 2009) evaluated the participants' academic optimism, focusing on their expectations for success in their teaching roles. This instrument measured aspects like confidence in instructional effectiveness, belief in student potential, and a positive outlook on overcoming teaching challenges.

3.2.2 Training Materials

The content for the TTC program was meticulously curated from a selection of relevant textbooks and resources. These materials aimed to equip participants with the knowledge and skills necessary to integrate MI-inspired approaches into their EFL teaching practices (as detailed in Table 1).

The primary textbook, "How to Teach English: New Edition," provided foundational knowledge on essential aspects of language instruction, including classroom management (as referenced in Table 1) and lesson planning (as referenced in Table 1).

Table 1.

The Content of the Program

Selected Part	Book Title	Book Page
Managing the Classroom	<i>How to Teach English new edition</i>	pp. 34-45
Planning Lessons	<i>How to Teach English new edition</i>	pp. 156-165
Group work/Pair work	<i>Materials and Methods in ELT third edition</i>	pp. 227-244
The Intelligences	<i>Multiple Intelligences The Complete MI Book</i>	Chapters 3, 4, 5, and 6
Matching Intelligences	<i>Multiple Intelligences The Complete MI Book</i>	Chapter 7 and 8
Stretching Intelligences	<i>Multiple Intelligences The Complete MI Book</i>	Chapter 9 and 10
Pedagogy of Teacher Education	<i>, International Handbook of Teacher Education Volume 1</i>	pp. 311-315
Assessment in Context: The Alternative to Standardized Testing	<i>Multiple Intelligences New Horizons</i>	pp. 167-190

"Materials and Methods in ELT: Third Edition" offered additional insights into effective techniques for utilizing group work and pair work activities (as referenced in Table 1) within the EFL classroom. To delve deeper into the theory of Multiple Intelligences (MI), participants engaged with chapters 3, 4, 5, and 6 of "Multiple Intelligences: The Complete MI Book." These sections explored the various intelligences proposed by Gardner, providing a comprehensive understanding of this framework.

Building upon this foundation, chapters 7 and 8 of the same book, titled "Matching Intelligences" and "Stretching Intelligences," respectively, equipped participants with strategies for aligning instructional approaches with students' diverse intelligences (as further elaborated upon in Table 1).

Furthermore, "International Handbook of Teacher Education Volume 1" (as referenced in Table 1) contributed valuable insights into the pedagogy of teacher education, while "Multiple Intelligences New Horizons" (as referenced in Table 1) offered additional perspectives on assessment strategies that complement MI-based teaching. These combined resources provided a robust foundation for the design and implementation of the MI-inspired TTC program.

3.3 Procedure

3.3.1 Participant recruitment

Participants were recruited through a targeted online campaign. Posts titled "Call for Participation in an Online Teacher Training Course (TTC)" were disseminated strategically on the Instagram page and Telegram channel of a local English Language Center (ELC). Additionally, announcements were posted on the Vice Presidency for Cultural Affairs webpage of the University of Kurdistan and the researchers' own social media profiles. The opportunity to participate remotely via Skype was extended to twenty individuals.

Following expressions of interest, participants were randomly assigned to either the experimental or control group using a coin toss method. This randomization procedure ensured unbiased allocation of individuals to each group.

3.3.2 Course Structure and Schedule

Both the experimental and control groups received a 21-hour online TTC program. To accommodate participant preferences, the experimental group's

Soleimani et al.

classes were scheduled from 10:00 AM to 1:00 PM, while the control group's sessions were held from 5:00 PM to 8:00 PM. A voting bot within the dedicated Telegram communication application facilitated the selection of these timeframes.

To minimize participant burden and potential response fatigue associated with completing multiple questionnaires daily, each group received only one questionnaire per day. These questionnaires were administered electronically via dedicated Google Doc links shared within their respective group chats ("TTC 1" for experimental and "TTC 2" for control). Prior to the commencement of the TTC program, all participants completed the Teacher Academic Optimism Scale (TAOS-E, Beard & Hoy, 2009) to assess their baseline levels of academic optimism. Additionally, the Spiritual Well-Being Scales (SWBS, Ryff, et al., 2010) were administered to measure their psychological well-being. These pre-test scores served as a foundation for evaluating potential changes after the intervention.

3.3.3 Experimental Group Training

The training program for the experimental group delved into the theory and principles of Multiple Intelligences (MI) and explored their practical application in effective EFL teaching practices. This eight-week program, as detailed in Table 2, was meticulously designed to equip participants with the knowledge and skills necessary to cater to diverse learners.

The program commenced with the administration of the TAOS-E (Session 1) and SWBS (Session 2) questionnaires to establish baseline measures of participants' academic optimism and psychological well-being. These pre-test scores served as a crucial reference point for evaluating the impact of the training program.

Subsequent sessions delved into the core concepts of MI. Session 3 provided a foundational understanding of this framework, followed by

practical applications of MI strategies for teaching vocabulary, pronunciation, and grammar. Building upon this knowledge, Session 4 focused on identifying the teachers' dominant intelligences, a valuable step in facilitating self-awareness and fostering effective teaching practices. This session further equipped participants with MI-based methods specifically tailored for enhancing listening and speaking skills in the EFL classroom.

Recognizing the importance of understanding student needs, Session 5 explored techniques for identifying students' dominant intelligences. Armed with this knowledge, participants learned a variety of MI-based methods for effectively teaching reading and writing skills. Session 6 delved into strategies for integrated teaching of the four essential language skills (listening, speaking, reading, and writing) while capitalizing on the strengths of MI theory. This session provided participants with practical tools for creating cohesive learning experiences that cater to diverse intelligences.

Effective grouping strategies are paramount in fostering a dynamic and inclusive learning environment. Session 7 addressed this crucial aspect by exploring various techniques for grouping students based on MI principles. The program culminated in Sessions 8 and the concluding session on Classroom Management. Session 8 focused on the practicalities of designing lesson plans and activities that effectively integrate MI principles. This session provided participants with the tools to translate theory into practice, ensuring their lesson plans cater to the multiple intelligences present in their classrooms.

The final session on Classroom Management emphasized strategies for creating a positive learning environment that acknowledges and addresses the diverse cognitive and affective needs of students with varying intelligences.

Table 2.*Content of the TTC Course for the Experimental Group*

Session No.	Topic	Content
1 st session before the course	Measuring Academic Optimism	TAOS-E (Beard & Hoy, 2009)
2 nd session before the course	Measuring Psychological Wellbeing	Ryff, et al, (2010)
1 st practical session on Thursday 26 th March	What is MI, how to teach vocabulary, pronunciation, and grammar based on them.	A brief history of intelligence, the introduction of different intelligences, and some basic concepts. Applying some strategies matched to the intelligences.
2 nd session	Finding Teacher's Dominant MI, and teaching listening and speaking.	Using Howard Gardner's questionnaire, providing some examples and useful MI-based methods on teaching listening and speaking.
3 rd session	How to Identify Students' MI, and teaching reading and writing.	Observation techniques and some examples, self-reported questionnaires, and useful MI-based methods on teaching reading and writing.
4 th session	Strategies for Integrated Teaching 4 skills According to MI	Well-known strategies reported by Spencer Kagan (1995)
5 th session	How to Group	Principles and different techniques of grouping according to MI. Some grouping technics in the book <i>How to Teach English</i> .
6 th session	How to design a lesson plan	Ways of designing a lesson plan
7 th session	How to Design activities	Designing inside-class and outside-class flexible activities to match all the intelligences
8 th session	Classroom Management	Managing classrooms in a way of multiple intelligences

3.3.4 Control Group Training

The control group's training program, outlined in Table 3, explored the influence of psychological factors on student learning and effective EFL teaching practices. This eight-week program mirrored the structure of the experimental group's training, with pre-test measures of academic optimism and psychological well-being established using the TAOS-E (Session 1) and SWBS (Session 2) questionnaires.

The program's content differed thematically, focusing on how various psychological factors impact students' learning experiences. Session 3 introduced key concepts such as introversion/extroversion, anxiety, attribution theory, and willingness to communicate. Participants also explored relevant strategies drawn from the "How to Teach" resource by Oxford, O'Malley, and Chamot.

Building upon this foundation, Sessions 4 and 5 delved deeper, equipping participants with methods for identifying their own psychological factors and those potentially impacting their students' listening, speaking, reading, and writing skills. These sessions provided practical strategies for addressing and mitigating potential barriers associated with these psychological factors. Similar to the experimental group, Session 6 of the control group's training focused on integrated teaching of the four language skills. However, in this case, the focus was on strategies outlined in the "How to Teach" resource.

Session 7 addressed student grouping strategies, but with a distinct approach compared to the experimental group. Here, the emphasis was on grouping students based on their identified psychological factors and gender. The program concluded with Sessions 8 and the concluding session on Classroom Management. Session 8 focused on designing lesson plans that take into account students' cognitive and affective needs, as detailed in the ELT textbook used in the program. The concluding session on Classroom

Soleimani et al.

Management echoed the focus on the experimental group's training, emphasizing strategies for creating a positive learning environment that addresses students' diverse needs.

Table 3.*Content of the TTC Course of the Control Group*

Session No.	Topic	Content
1 st session before the course	Measuring Academic Optimism	TAOS-E (Beard & Hoy, 2009)
2 nd session before the course	Measuring Psychological Wellbeing	Ryff, et al, (2010)
1 st practical session on Thursday 26 th March	What are psychological factors and how to teach grammar, pronunciation, and vocabulary based on them.	An introduction to introvert and extrovert students, Anxiety, Attribution, willingness to communicate. Rebecca Oxford, O'Malley, and Chamot, and some strategies based on the book <i>How to Teach</i> .
2 nd session	Finding teachers' psychological factors based on the concepts introduced in the 1 st session, and introducing ways of finding the same points of the students. And teaching listening and speaking.	Methods of finding these psychological factors based on procedures in the <i>International Handbook of Teacher Education Volume 1</i> . Providing strategies to deal with the barriers of listening and speaking.
3 rd session	Finding students' psychological factors based on the concepts introduced in the 1 st session. And teaching reading and writing.	Methods of finding these psychological factors based on procedures in the <i>International Handbook of Teacher Education Volume 1</i> . Providing strategies to cope with these barriers in reading and writing.
4 th session	Integrated teaching of 4 skills.	Integrated teaching of 4 skills based on strategies mentioned in the book entitled <i>How to Teach English</i> .
5 th session	How to group students	Types of grouping and how to group students based on their psychological factors and gender.
6 th session	How to design a lesson plan	An introduction to lesson plan and characteristics of

7 th session	How to design activities	a good lesson plan based on the book <i>ELT</i> . Designing inside-class and outside-class flexible activities to match students' psychological factors.
8 th session	Classroom management	How to manage the class to meet students' cognitive and affective factors.

At the conclusion of the eighth session for both groups, participants completed the same pre-administered questionnaires (TAOS-E and SWBS) as a post-test measure. This allowed for the comparison of pre- and post-test scores to assess the impact of the training programs on academic optimism and psychological well-being.

3.4 Data Analysis

Descriptive statistics were calculated to summarize the key characteristics of the sample and provide an initial exploration of the data. Measures of central tendency, specifically means (M), and dispersion, standard deviations (SD), were computed for all pre-test and post-test scores. Given the pre-test/post-test design of the study, paired-samples t-tests were conducted to analyze changes within each group for both the AO and PW scores. Furthermore, to account for potential baseline inequities in academic optimism and psychological well-being between the experimental and control groups at the outset of the study, a one-way Analysis of Covariance (ANCOVA) was conducted. This statistical test examined the post-test scores on the TAOS-E and SWBS while statistically controlling for the pre-test scores on the same measures. This approach helped to isolate the specific effects of the training programs on the outcome variables by statistically adjusting for any pre-existing group differences (Pallant, 2020).

4. Results

Table 4 details the statistics for skewness, a measure of distribution asymmetry, for teacher academic optimism (AO) and psychological wellbeing (PW) across the control and experimental groups, assessed at both pre-test and post-test administrations. Positive skewness indicates a distribution with a longer tail towards higher values, while negative skewness indicates a longer tail towards lower values.

Table 4.
Testing Normality of Data

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Control	Pre-AO	10	.606	.687	0.88	-.030	1.334	-0.02
	Pre-PW	10	.825	.687	1.20	-.326	1.334	-0.24
	Post-AO	10	.456	.687	0.66	-1.506	1.334	-1.13
	Post-PW	10	.554	.687	0.81	.051	1.334	0.04
Experimental	Pre-AO	10	.834	.687	1.21	-.618	1.334	-0.46
	Pre-PW	10	-.099	.687	-0.14	.428	1.334	0.32
	Post-AO	10	-.410	.687	-0.60	-1.212	1.334	-0.91
	Post-PW	10	-.653	.687	-0.95	-.956	1.334	-0.72

Note. AO = Academic optimism PW = Psychological wellbeing

To evaluate the normality of the data, skewness values were examined alongside their standard errors. Because the absolute values of all skewness statistics fell below 1.96 (the standard error for skewness with a sample size of 10), we can confidently retain the assumption of normality for the data (Field, 2013). In simpler terms, the distribution of scores for both academic optimism and psychological wellbeing did not exhibit significant deviations from a normal bell curve.

Table 5 indicates the findings of the study, including normality testing, internal consistency estimates, and pre-test to post-test changes in academic

optimism and psychological wellbeing scores. Skewness statistics were examined to assess the normality of data distribution for teacher AO and PW scores across the control and experimental groups, measured at both pre-test and post-test. Absolute skewness values for all groups fell below 1.96, the standard error for skewness with a sample size of 10 (Field, 2013). This adherence to the normality assumption suggests that the distribution of scores for both AO and PW did not deviate significantly from a normal bell curve.

Table 5.

Descriptive Statistics and KR-21 Reliability Indices

	N	Min.	Max.	Mean	SD	Var.	KR-21
Pre-AO	20	319	514	396.35	58.359	3405.81	.94
Pre-PW	20	54	91	72.20	9.573	91.642	.67
Post-AO	20	337	560	446.85	69.758	4866.23	.96
Post-PW	20	77	112	90.05	10.724	114.997	.78

The KR-21 coefficient, a measure of internal consistency, was employed to evaluate the extent to which items within the AO and PW measures consistently assessed the targeted constructs. Generally, KR-21 values above .7 are considered acceptable, while values exceeding .8 are considered. The results revealed excellent KR-21 coefficients for the AO measure, exceeding .94 for both pre-test ($M = 396.35$, $SD = 58.36$) and post-test ($M = 446.85$, $SD = 69.76$) administrations. These high values indicate a very strong level of internal consistency, suggesting that the items within the AO scale consistently captured the same underlying construct of academic optimism. The KR-21 coefficients for the PW measure were acceptable, with a value of .67 for the pre-test ($M = 72.20$, $SD = 9.57$) and .78 for the post-test ($M = 90.05$, $SD = 10.72$). While these values fall within the acceptable range, they suggest a slightly lower level of internal consistency compared to the AO measure. This may indicate that the items within the PW measure may vary

Soleimani et al.

somewhat in terms of what they assess, although they still demonstrate an adequate level of internal consistency.

Table 6.
Paired-Samples t-Tests for Academic Optimism and Psychological Wellbeing Scores

Variable	Group	Pre-Test (M ± SD)	Post- Test (M ± SD)	t	df	p	Cohen's d
Academic Optimism	Control	396.35 (58.36)	446.85 (69.76)	2.38	9	.042	0.81
	Experimental	393.50 (52.14)	482.10 (59.87)	5.42	9	.001	1.63
Psychological Wellbeing	Control	72.20 (9.57)	90.05 (10.72)	4.27	9	.002	1.79
	Experimental	73.10 (8.42)	97.85 (12.31)	6.14	9	<.001	2.42

Paired-samples t-tests were conducted to analyze the within-group changes in AO and PW scores from pre-test to post-test for both the control and experimental groups. As seen in Table 6, the experimental group showed a significant increase in AO scores (pre-test: M = 393.50, SD = 52.14; post-test: M = 482.10, SD = 59.87), $t(9) = 5.42$, $p = .001$. This increase translates to a large effect size (Cohen's $d = 1.63$). Similarly, the control group also demonstrated a significant increase in AO scores (pre-test: M = 396.35, SD = 58.36; post-test: M = 446.85, SD = 69.76), $t(9) = 2.38$, $p = .042$, with a moderate effect size (Cohen's $d = 0.81$).

Table 7.
One-Way ANCOVA for Academic Optimism

Source	SS	df	MS	F	p	η^2
Condition (Group)	784.42	1	784.42	14.43	.001	0.47
Pretest AO	1296.78	1	1296.78	23.78	<.001	0.59
Interaction	38.47	1	38.47	0.70	.412	0.04
Error	847.94	16	53.00			
Total	2967.61	19				

Similar to academic optimism, psychological wellbeing scores in the experimental group also exhibited a significant increase (pre-test: M = 73.10, SD = 8.42; post-test: M = 97.85, SD = 12.31), $t(9) = 6.14$, $p < .001$. This increase represents a large effect size (Cohen's $d = 2.42$). The control group

also showed a significant improvement in psychological wellbeing scores (pre-test: $M = 72.20$, $SD = 9.57$; post-test: $M = 90.05$, $SD = 10.72$), $t(9) = 4.27$, $p = .002$, with a large effect size as well (Cohen's $d = 1.79$).

Table 8.
One-Way ANCOVA for Psychological Wellbeing

Source	SS	df	MS	F	p	η^2
Condition (Group)	324.0	1	324.0	23.8	<.00	0.5
Pretest PW	43.26	1	43.26	3.18	.092	0.1
Interaction	14.44	1	14.44	1.06	.317	0.0
Error	448.8	1	28.06			6
Total	830.6	1				9
	0	9				6

Subsequently, one-way ANCOVA were conducted to examine the effects of the intervention program on academic optimism (AO) and psychological wellbeing (PW) scores while controlling for initial differences in pre-test scores.

The ANCOVA for academic optimism (Table 7) revealed a significant main effect for the condition (group) after controlling for pre-test AO scores, $F(1, 16) = 14.43$, $p = .001$, $\eta^2 = 0.47$. This indicates that there was a statistically significant difference in post-test AO scores between the control and experimental groups after accounting for initial differences in pre-test scores. The effect size (η^2) of 0.47 can be classified as large according to Cohen's (1988) criteria, suggesting a substantial impact of the intervention program on academic optimism.

The ANCOVA also revealed a significant main effect for pre-test AO scores, $F(1, 16) = 23.78$, $p < .001$, $\eta^2 = 0.59$. This is expected as the ANCOVA procedure adjusts for the initial differences in pre-test scores. The non-significant interaction effect, $F(1, 16) = 0.70$, $p = .412$, $\eta^2 = 0.04$, suggests that

Soleimani et al.

the program's impact on academic optimism was consistent across both groups, regardless of their initial pre-test scores.

Similar to the findings for academic optimism, the ANCOVA for psychological wellbeing (Table 8) revealed a significant main effect for the condition (group) after controlling for pre-test PW scores, $F(1, 16) = 23.84$, $p < .001$, $\eta^2 = 0.59$. This indicates a statistically significant difference in post-test PW scores between the control and experimental groups, even after accounting for initial differences in pre-test scores. The large effect size (η^2) of 0.59 highlights the substantial impact of the intervention program on psychological wellbeing.

The ANCOVA also revealed a main effect for pre-test PW scores, $F(1, 16) = 3.18$, $p = .092$, $\eta^2 = 0.16$. While this effect did not reach statistical significance at the conventional alpha level ($p < .05$), it suggests a potential trend for pre-test scores to influence post-test scores. The non-significant interaction effect, $F(1, 16) = 1.06$, $p = .317$, $\eta^2 = 0.06$, suggests that similar to academic optimism, the program's impact on psychological wellbeing did not differ based on pre-test scores.

5. Discussion

The findings revealed that teacher education programs incorporating MI-inspired strategies did not significantly impact EFL teachers' academic optimism warrants a closer examination within the existing research landscape. While seemingly counterintuitive, this result compels us to delve deeper into the potential reasons behind this neutrality.

One explanation lies in the fidelity of MI implementation. Sulaiman et al. (2010) emphasize the critical role of teacher self-awareness of their own intelligences and a strong understanding of students' intelligences in optimizing the learning process. Teacher education programs that inadequately address these aspects may leave educators struggling to

effectively integrate MI strategies, potentially leading to a neutral effect on their overall academic optimism. Without a thorough grounding in MI theory and its practical application, teachers might lack the confidence (a key component of self-efficacy within academic optimism) to translate theory into impactful classroom practice (Straková et al., 2018).

Furthermore, Yaumi et al. (2018) highlight the importance of mentoring systems in enhancing the impact of MI-based training on teachers. Perhaps the teacher education programs in this study lacked such a support structure. The absence of ongoing guidance and support could hinder the translation of theoretical knowledge into practical application within the classroom. Without this crucial element, teachers may struggle to sustain MI-based practices, potentially leading to a diminished sense of efficacy and ultimately, a neutral impact on their academic optimism.

Another consideration is the specific focus of the MI-inspired strategies employed. While MI theory champions catering to diverse intelligences, the context of EFL instruction necessitates a nuanced approach. Research by Eren (2014) and Khodarahmi and Zarrinabadi (2016) link teacher academic optimism to student motivation and self-regulated learning in language acquisition, respectively. If the MI-based strategies primarily focused on intelligences like kinesthetic or musical, for instance, they might not have directly addressed the core skills required for successful language learning. This lack of alignment with the specific demands of EFL instruction could have resulted in a neutral impact on teacher academic optimism related to their students' language achievement.

The baseline level of academic optimism among the participating EFL teachers also merits exploration. Research by Li et al. (2023) suggests that teachers with high academic optimism are more likely to engage in professional development. If the teacher participants already possessed a

Soleimani et al.

strong foundation of academic optimism, the MI-inspired strategies might not have provided a significant enough boost to register a statistically relevant difference. Future research could benefit from measuring teacher academic optimism before and after the intervention to account for this potential ceiling effect.

Finally, the collaborative nature of the teacher education program itself warrants investigation. Wagner and Dipaola's (2011) research highlights the positive correlation between teacher academic optimism and organizational citizenship behavior, such as helping colleagues. If the MI-inspired program focused solely on individual teacher development and lacked opportunities for collaboration or knowledge sharing, it might have missed a crucial aspect of fostering teacher optimism. Encouraging collaboration and fostering a sense of community among teachers can create a positive feedback loop, where shared experiences and collective efficacy contribute to a more optimistic outlook (Hoy et al., 2008).

Additionally, our study's finding that teacher education programs incorporating MI-inspired strategies positively impact teachers' psychological wellbeing aligns with a growing body of research highlighting the multifaceted benefits of MI theory in educational settings. This synergy between MI and teacher wellbeing resonates with several key considerations within the existing literature. Firstly, MI theory empowers teachers by providing them with a framework for individualizing instruction (Hassan et al., 2011). This shift from a "one-size-fits-all" approach allows teachers to cater to the diverse learning styles and intelligences present in their classrooms. Studies by Azid et al. (2016) and Hanafin (2014) showcase the positive impact of MI on teachers' sense of self-efficacy and agency within the classroom. When teachers witness their students thriving through MI-based instructional approaches, it likely fosters a sense of competence, a key

component of teacher psychological wellbeing as defined by Dagenais-Desmarais and Savoie (2012).

In addition, MI principles encourage the use of diverse teaching strategies, as highlighted by Sulaiman et al. (2010). This variety in instructional approaches can help to alleviate feelings of monotony and burnout, which are significant threats to teacher psychological wellbeing (Burić et al., 2019). By engaging students through a wider range of activities and materials that cater to their preferred intelligences, teachers are likely to experience a greater sense of work engagement and fulfillment, both of which contribute to positive psychological wellbeing. Our findings also resonate with research on the positive correlation between teacher self-efficacy and psychological wellbeing (Xiyun et al., 2022). As mentioned earlier, MI theory equips teachers with a framework for tailoring instruction to individual student needs. This process likely fosters a sense of confidence in their ability to guide student learning effectively, a core dimension of teacher self-efficacy within academic optimism (Straková et al., 2018). Increased self-efficacy has been linked to lower levels of stress and anxiety among teachers (Ibrahim et al., 2021), further contributing to their overall psychological wellbeing.

The collaborative nature of MI-based professional development programs might also play a role in enhancing teacher wellbeing. Research by Greenier et al. (2021) highlights the importance of social support in mitigating the negative impact of stressors on teachers. MI-based programs that foster collaboration and knowledge sharing among teachers can create a supportive community. This sense of belonging and connection with colleagues can act as a buffer against burnout and contribute to a more positive work environment, ultimately enhancing teacher psychological wellbeing.

It is important to acknowledge that our study focused on the self-reported psychological wellbeing of teachers. Future research that incorporates additional measures, such as physiological stress markers or observations of teacher behavior, could provide a more holistic understanding of the impact of MI-inspired strategies on teacher wellbeing. Additionally, exploring the long-term sustainability of these positive effects would be valuable. Do the benefits of MI-based strategies on teacher wellbeing persist over time, or do they diminish as teachers grapple with the realities of daily classroom practice?

6. Conclusion and Implications

This study investigated the impact of teacher education programs incorporating MI-inspired strategies on EFL teachers' academic optimism and psychological wellbeing. Our findings revealed a positive and significant impact on teachers' psychological wellbeing, but not on their academic optimism. These results offer valuable insights into the multifaceted influences on educator well-being and the potential role of MI theory in fostering a positive and supportive learning environment.

Our findings add to the existing body of research on the multifaceted benefits of MI theory in educational settings. While previous studies have explored the impact of MI on student learning outcomes and teacher development (Armstrong, 2009; Shearer, 2004), our research sheds light on its potential to enhance teacher psychological wellbeing. This highlights the holistic nature of MI's influence, extending beyond student achievement to encompass teacher well-being, a critical factor in educational success (Hascher & Waber, 2021). Additionally, by revealing a neutral effect on academic optimism, our study encourages further investigation into the specific aspects of MI-based programs that might be most impactful in fostering teacher optimism about their students' potential.

The positive impact of MI-inspired strategies on teacher psychological wellbeing holds significant practical implications for teacher education programs and school administrators. Integrating MI principles into professional development opportunities can equip educators with valuable tools for individualizing instruction, promoting diverse teaching strategies, and fostering a sense of self-efficacy. This, in turn, can contribute to a more positive and fulfilling work environment for teachers, potentially mitigating burnout and leading to a more engaged and effective teaching force. School administrators can play a crucial role in supporting this shift by providing opportunities for ongoing professional development in MI theory and fostering a collaborative school culture that encourages knowledge sharing and peer support among teachers.

Our study is not without limitations. Firstly, the research employed a self-reported measure of teacher psychological wellbeing, which may be susceptible to social desirability bias. Future research that incorporates additional measures, such as physiological stress markers or observations of teacher behavior, could provide a more comprehensive understanding of the impact of MI-based strategies on teacher wellbeing. Secondly, the study's focus on a single intervention program limits the generalizability of the findings. Future research that explores the impact of MI across a wider range of educational contexts and program designs would strengthen the overall body of knowledge. Finally, the study design did not allow for a long-term assessment of the sustainability of the observed effects on teacher wellbeing. Investigating whether the positive impact persists over time would be a valuable area for future research.

Despite these limitations, our study offers a valuable springboard for further investigation. Future research can delve deeper into the specific aspects of MI-based programs that contribute most significantly to teacher

Soleimani et al.

psychological wellbeing. Additionally, exploring the potential long-term impact of MI on teacher optimism and student learning outcomes would be a fruitful avenue for further inquiry. Ultimately, by continuing to explore the multifaceted benefits of MI theory, we can create a more enriching and supportive environment for both educators and their students.

References

- Armstrong, T. (2009). *Multiple intelligences in the classroom* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Azid, N. H., Yaacob, A., & Shaik-Abdullah, S. (2016). The Multiple Intelligence Based Enrichment Module on the Development of Human Potential: Examining Its Impact and the Views of Teachers. *Malaysian Journal of Learning and Instruction*, 13(2), 175-200.
- Beard, K. S., Hoy, W. K., & Hoy, A. W. (2010). Academic optimism of individual teachers: Confirming a new construct. *Teaching and Teacher Education*, 26(5), 1136-1144.
- Boonen, T., Pinxten, M., Van Damme, J., & Onghena, P. (2014). Should schools be optimistic? An investigation of the association between academic optimism of schools and student achievement in primary education. *Educational Research and Evaluation*, 20(1), 3-24.
- Boyle, G. J., Borg, M. G., Falzon, J. M., & Baglioni Jr, A. J. (1995). A structural model of the dimensions of teacher stress. *British Journal of Educational Psychology*, 65(1), 49-67.
- Burić, I., Slišković, A., & Penezić, Z. (2019). Understanding teacher well-being: a cross-lagged analysis of burnout, negative student-related emotions, psychopathological symptoms, and resilience. *Educational Psychology*, 39(9), 1136-1155.
- Cobo-Rendón, R., Pérez-Villalobos, M. V., Páez-Rovira, D., & Gracia-Leiva, M. (2020). A longitudinal study: Affective wellbeing, psychological wellbeing, self-efficacy and academic performance among first-year undergraduate students. *Scandinavian Journal of Psychology*, 61(4), 518-526.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Dagenais-Desmarais, V., & Savoie, A. (2012). What is psychological well-being, really? A grassroots approach from the organizational sciences. *Journal of Happiness Studies*, 13, 659-684.

- Dang, T. K. A., Carbone, A., Ye, J., & Vu, T. T. P. (2022). How academics manage individual differences to team teach in higher education: a sociocultural activity theory perspective. *Higher Education*, 1-20.
- Derakhshan, A., Dewaele, J. M., & Noughabi, M. A. (2022). Modeling the contribution of resilience, well-being, and L2 grit to foreign language teaching enjoyment among Iranian English language teachers. *System*, 109, 102890.
- Eren, A. (2012). Prospective teachers' future time perspective and professional plans about teaching: The mediating role of academic optimism. *Teaching and Teacher Education*, 28(1), 111-123.
- Eren, A. (2014). Uncovering the links between prospective teachers' personal responsibility, academic optimism, hope, and emotions about teaching: A mediation analysis. *Social Psychology of Education*, 17, 73-104.
- Fathi, J., Derakhshan, A., & Saharkhiz Arabani, A. (2020). Investigating a structural model of self-efficacy, collective efficacy, and psychological well-being among Iranian EFL teachers. *Iranian Journal of Applied Language Studies*, 12(1), 123-150.
- Feng, F. I., & Chen, W. L. (2019). The effect of principals' social justice leadership on teachers' academic optimism in Taiwan. *Education and Urban Society*, 51(9), 1245-1264.
- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Sage Publications.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York, NY: Basic Books.
- Graziano, P. A., Garic, D., & Dick, A. S. (2022). Individual differences in white matter of the uncinate fasciculus and inferior fronto-occipital fasciculus: possible early biomarkers for callous-unemotional behaviors in young children with disruptive behavior problems. *Journal of Child Psychology and Psychiatry*, 63(1), 19-33.
- Greenier, V., Derakhshan, A., & Fathi, J. (2021). Emotion regulation and psychological well-being in teacher work engagement: a case of British and Iranian English language teachers. *System*, 97, 102446.
- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, 15(2), 273-289.
- Gul, R., & Rafique, M. (2017). Teachers preferred approaches towards multiple intelligence teaching: Enhanced prospects for teaching strategies. *Journal of Research & Reflections in Education (JRRE)*, 11(2).

Soleimani et al.

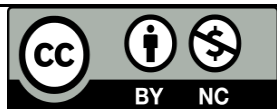
- Gustems-Carnicer, J., Calderon, C., Batalla-Flores, A., & Esteban-Bara, F. (2019). Role of coping responses in the relationship between perceived stress and psychological well-being in a sample of Spanish educational teacher students. *Psychological Reports, 122*(2), 380-397.
- Hanafin, J. (2014). Multiple intelligences theory, action research, and teacher professional development: The Irish MI project. *Australian Journal of Teacher Education (Online), 39*(4), 126-141.
- Hascher, T., & Waber, J. (2021). Teacher well-being: A systematic review of the research literature from the year 2000–2019. *Educational Research Review, 34*, 100411.
- Hassan, A., Sulaiman, T., & Baki, R. (2011). Philosophical approach in applying multiple intelligence in teaching and learning as viewed by Malaysian school teachers. *International Journal of Business and Social Science, 2*(16).
- Hong, F. Y. (2017). Antecedent and consequence of school academic optimism and teachers' academic optimism model. *Educational Studies, 43*(2), 165-185.
- Teachers' knowledge, beliefs, and thinking. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (2nd ed., pp. 715–737). Mahwah: Lawrence Erlbaum.
- Hoy, A. W., Hoy, W. K., & Kurz, N. M. (2008). Teacher's academic optimism: The development and test of a new construct. *Teaching and Teacher Education, 24*(4), 821-835.
- Hoy, W. K., Tarter, C. J., & Hoy, A. W. (2006). Academic optimism of schools: A force for student achievement. *American Educational Research Journal, 43*(3), 425-446.
- Hoy, W. K., Tarter, C. J., & Hoy, A. W. (2010). Academic optimism of schools.
- Hsieh, C. C., Yen, H. C., & Kuan, L. Y. (2014). *The Relationship among Principals' Technology Leadership, Teaching Innovation, and Students' Academic Optimism in Elementary Schools*. International Association for the Development of the Information Society.
- Ibrahim, R. Z. A. R., Zalam, W. Z. M., Foster, B., Afrizal, T., Johansyah, M. D., Saputra, J., ... & Ali, S. N. M. (2021). Psychosocial work environment and teachers' psychological well-being: The moderating role of job control and social support. *International Journal of Environmental Research and Public Health, 18*(14), 7308.
- Jeon, L., Buettner, C. K., & Grant, A. A. (2018). Early childhood teachers' psychological well-being: Exploring potential predictors of depression, stress, and emotional exhaustion. *Early Education and Development, 29*(1), 53-69.

- Katsantonis, I. (2020). Factors Associated with Psychological Well-Being and Stress: A Cross-Cultural Perspective on Psychological Well-Being and Gender Differences in a Population of Teachers. *Pedagogical Research*, 5(4).
- Khodarahmi, E., & Zarrinabadi, N. (2016). Self-regulation and academic optimism in a sample of Iranian language learners: Variations across achievement group and gender. *Current Psychology*, 35, 700-710.
- Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22(8), 1020-1041.
- Kun, A., & Gadanez, P. (2019). Workplace happiness, well-being and their relationship with psychological capital: A study of Hungarian Teachers. *Current Psychology*, 1-15.
- Li, C. (2022). Foreign language learning boredom and enjoyment: The effects of learner variables and teacher variables. *Language Teaching Research*, 13621688221090324.
- Li, F., Mohammaddokht, F., Hosseini, H. M., & Fathi, J. (2023). Reflective teaching and academic optimism as correlates of work engagement among university instructors. *Heliyon*, 9(2).
- Li, S. (2021). Psychological wellbeing, mindfulness, and immunity of teachers in second or foreign language education: a theoretical review. *Frontiers in Psychology*, 12, 720340.
- Liu, L., Fathi, J., Allahveysi, S. P., & Kamran, K. (2023). A model of teachers' growth mindset, teaching enjoyment, work engagement, and teacher grit among EFL teachers. *Frontiers in Psychology*, 14, 1137357.
- Loughran, J., & Hamilton, M. (2016). Developing an understanding of teacher education. In J. Loughran & M. Hamilton (Eds.), *International handbook of teacher education* (Vol. 1, pp. 3–22). Dordrecht: Springer.
- Lucas-Mangas, S., Valdivieso-León, L., Espinoza-Díaz, I. M., & Tous-Pallarés, J. (2022). Emotional intelligence, psychological well-being and burnout of active and in-training teachers. *International Journal of Environmental Research and Public Health*, 19(6), 3514.
- Mavroveli, S., Petrides, K. V., Rieffe, C., & Bakker, F. (2007). Trait emotional intelligence, psychological well-being and peer-rated social competence in adolescence. *British Journal of Developmental Psychology*, 25(2), 263-275.
- McCarthy, C. J., Lambert, R. G., & Reiser, J. (2014). Vocational concerns of elementary teachers: Stress, job satisfaction, and occupational commitment. *Journal of Employment Counseling*, 51(2), 59-74.

Soleimani et al.

- McGuigan, L., & Hoy, W. K. (2006). Principal leadership: Creating a culture of academic optimism to improve achievement for all students. *Leadership and Policy in Schools, 5*(3), 203-229.
- McInerney, D. M., Ganotice, F. A., King, R. B., Morin, A. J., & Marsh, H. W. (2015). Teachers' commitment and psychological well-being: Implications of self-beliefs for teaching in Hong Kong. *Educational Psychology, 35*(8), 926-945.
- McInerney, D. M., Korpershoek, H., Wang, H., & Morin, A. J. (2018). Teachers' occupational attributes and their psychological wellbeing, job satisfaction, occupational self-concept and quitting intentions. *Teaching and Teacher Education, 71*, 145-158.
- Nazari, M., & Alizadeh Oghyanous, P. (2021). Exploring the role of experience in L2 teachers' turnover intentions/occupational stress and psychological well-being/grit: A mixed methods study. *Cogent Education, 8*(1), 1892943.
- Sabouripour, F., Roslan, S., Ghiami, Z., & Memon, M. A. (2021). Mediating role of self-efficacy in the relationship between optimism, psychological well-being, and resilience among Iranian students. *Frontiers in Psychology, 12*, 675645.
- Shearer, C. B. (2004). Using a multiple intelligences assessment to promote teacher development and student achievement. *Teachers College Record, 106*(1), 147-162.
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*(3), 611.
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*(4), 1059-1069.
- Smith, P. A., & Hoy, W. K. (2007). Academic optimism and student achievement in urban elementary schools. *Journal of Educational Administration, 45*(5), 556-568.
- Soleimani, H., & Allahveysi, S. P. (2022). Teacher education and multiple intelligences: Foreign language teaching anxiety of Iranian EFL teachers. *Two Quarterly Journal of English Language Teaching and Learning University of Tabriz, 14*(29), 214-227.
- Soleimani, H., Moinnzadeh, A., Kassaian, Z., & Ketabi, S. (2012). The effect of instruction based on multiple intelligences theory on the attitude and learning of general English. *English Language Teaching, 5*(9), 45-53.
- Song, K. (2022). Well-being of teachers: The role of efficacy of teachers and academic optimism. *Frontiers in Psychology, 12*, 6588.
- Straková, J., Simonová, J., & Greger, D. (2018). Improving mathematics results: does teachers' academic optimism matter? A study of lower secondary schools. *School Effectiveness and School Improvement, 29*(3), 446-463.
- Sulaiman, T., Abdurahman, A. R., & Rahim, S. S. A. (2010). Teaching strategies based on multiple intelligences theory among science and mathematics secondary school teachers. *Procedia-Social and Behavioral Sciences, 8*, 512-518.

- Thien, L. M., & Chan, S. Y. (2022). One-size-fits-all? A cross-validation study of distributed leadership and teacher academic optimism. *Educational Management Administration & Leadership*, 50(1), 43-63.
- Tschannen-Moran, M., Bankole, R. A., Mitchell, R. M., & Moore, D. M. (2013). Student academic optimism: A confirmatory factor analysis. *Journal of Educational Administration*.
- Wagner, C. A., & Dipaola, M. F. (2011). Academic optimism of high school teachers: Its relationship to organizational citizenship behaviors and student achievement. *Journal of School Leadership*, 21(6), 893-926.
- Wang, Y., Derakhshan, A., & Azari Noughabi, M. (2022). The interplay of EFL teachers' immunity, work engagement, and psychological well-being: Evidence from four Asian countries. *Journal of Multilingual and Multicultural Development*, 1-17.
- Woolfolk Hoy, A. (2012). Academic optimism and teacher education. *The Teacher Educator*, 47(2), 91-100.
- Wu, J. H., & Lin, C. Y. (2018). A multilevel analysis of teacher and school academic optimism in Taiwan elementary schools. *Asia Pacific Education Review*, 19, 53-62.
- Wu, J. H., Hoy, W. K., & Tarter, C. J. (2013). Enabling school structure, collective responsibility, and a culture of academic optimism: Toward a robust model of school performance in Taiwan. *Journal of Educational Administration*, 51(2), 176-193.
- Xiyun, S., Fathi, J., Shirbagi, N., & Mohammaddokht, F. (2022). A structural model of teacher self-efficacy, emotion regulation, and psychological wellbeing among English teachers. *Frontiers in Psychology*, 13, 904151.
- Xu, L., & Zhu, X. (2022). The predictive role of Chinese English as a foreign language teachers' psychological capital in their job commitment and academic optimism. *Frontiers in Psychology*, 13, 916433.
- Yang, H. M. (2022). English as a foreign language teachers' well-being, their apprehension, and stress: The mediating role of hope and optimism. *Frontiers in Psychology*, 13, 855282.
- Yaumi, M., Sirate, S. F. S., & Patak, A. A. (2018). Investigating multiple intelligence-based instructions approach on performance improvement of Indonesian elementary madrasah teachers. *SAGE Open*, 8(4), 2158244018809216.
- Zee, M., & Koomen, H. M. (2016). Teacher self-efficacy and its effects on classroom processes, student academic adjustment, and teacher well-being: A synthesis of 40 years of research. *Review of Educational Research*, 86(4), 981-1015.
- Zhang, X. (2021). The effect of English as a foreign language teachers' optimism and affectivity on their psychological well-being. *Frontiers in Psychology*, 12, 816204.



2024 by the authors. Licensee Journal of Teaching English Language (TEL). This is an open access article distributed under the terms and conditions of the Creative Commons Attribution–Non Commercial 4.0 International (CC BY-NC 4.0 license). (<http://creativecommons.org/licenses/by-nc/4.0>).