Empowering Teachers: A Catalyst for Elevating Teaching Effectiveness in the Maldives.

Mohamed Nasir[1], Al-Amin Mydin[2] and Abdul Ghani Kanesan Abdullah[3]
[1,2,3] School of Educational Studies, Universiti Sains (USM), Malaysia,
Corresponding email: mfnasir@gmail.com

Article Information

Abstract

This research explores the transformative potential of teacher empowerment on teaching effectiveness within the educational landscape of the Maldives. Employing a cross-sectional survey design, quantitative data were collected from a randomly selected sample of 390 teachers spanning four provinces. Comprehensive data analysis was conducted using SPSS IBM version 23 and PLS-SEM 3.0, offering descriptive and inferential insights. The study exclusively centred on the School Participant Empowerment Scale (SPES) for assessing teacher empowerment and the Self-assessment Instrument for Teacher Evaluation-II (SITE-II) for evaluating teaching effectiveness. The results underscore a substantial positive influence of teacher empowerment on teaching effectiveness, illuminating empowerment's pivotal role in raising educational standards in the Maldives. This study contributes invaluable insights into the intricate relationship between teacher empowerment and teaching effectiveness in Maldivian education. It highlights the significance of empowerment as a catalyst for enhancing teaching outcomes and offers a foundation for informed strategies to elevate the overall quality of education in the Maldives.

INTRODUCTION

In today's globalised era, where boundaries are porous, nations worldwide are undergoing profound transformations. These changes are compelling stakeholders from diverse domains to harness the opportunities presented by this borderless landscape. Within this context, the field of education plays a pivotal role. Like many other nations, the Maldives seeks to align its educational system with global standards in a world marked by seamless connectivity and intensified competition for high-quality educational resources.

The Maldives has committed to nurturing a knowledge-based economy that addresses societal well-being and challenges such as poverty reduction. This commitment extends to ensuring overall prosperity while responding to the evolving demands of the 21st-century economy (MoE and MoHE, 2019). To achieve these goals, enhancing teaching effectiveness has become increasingly evident as a linchpin (Kyriakides et al., 2021).

This study primarily focuses on teachers' perceived empowerment and its impact on teaching effectiveness within the unique context of the Maldives. The research seeks to investigate how teacher empowerment shapes the perceived effectiveness of teaching, shedding light on its pivotal role in elevating educational standards.

The Maldives, renowned for its coral islands and rich marine ecosystems, relied heavily on nature-based tourism for economic growth and local employment. English served as the primary language of instruction in the country's 212 government schools, but concerns persisted over low pass rates in English, especially after the lower secondary levels. Despite challenges in resource distribution due to geographical dispersion, the Maldives embraced an ambitious Education Strategic Action Plan 2021-2025. The plan aimed to provide quality education, spanning from preschool to university, and to ensure 14 years of schooling for all children up to 18. The Ministry of Education also focused on equipping young people with skills for employment.

Within this educational context, the study explored the impact of teacher empowerment on teaching effectiveness in the Maldives. The Maldives had made significant educational advancements, achieved high adult literacy rates, and ensured universal primary education with minimal gender disparity (Nazeer, 2017). However, challenges persisted in higher secondary education admission, with only 45% of lower secondary students progressing to this level. Geographical dispersion across islands complicated curriculum implementation and monitoring, resulting in varying educational quality. Lower-secondary pass rates were lower in atolls compared to the capital city, Male', and many students failed exams. While teaching materials were abundant, some teachers prioritised memorisation over critical thinking. Closer teacher-student-system connections were essential.

The Maldives initiated educational reforms to address these issues, aligning with SDG 4. Efforts were made to reduce dropouts between lower and higher secondary levels, offering vocation-oriented education alternatives. Challenges included closing the learning gap among students through new curricula, teaching materials, and school-based professional development. Despite progress in access and completion, a noticeable learning gap among students remained (Di Biase & Maniku, 2021).

Teaching Effectiveness in the Maldives: A Critical Study
Within the Maldives' unique educational landscape, teaching effectiveness was paramount. This study delved into the influence of teacher empowerment on teaching effectiveness in the Maldives, emphasising its significance. Like many nations, the Maldives aspired to provide top-tier education to its citizens to contribute to social well-being, economic growth, and prosperity (Department of Inclusive Education, 2020). Achieving this aspiration hinged significantly on the effectiveness of teaching. In this context, teaching effectiveness transcended traditional pedagogy; it encompassed educators' ability to facilitate student achievement and address individual learning needs (Latifi & Latifi, 2022).

However, the Maldives faced specific challenges in enhancing teaching effectiveness. Despite governmental efforts to provide in-service training, teachers often need help with knowledge and skill gaps (Muralidharan & Singh, 2020). This context necessitated a deeper investigation into how teacher empowerment could catalyse teaching effectiveness in the Maldives. Comprehensively understanding the interplay between teacher empowerment and teaching effectiveness within this context could elevate the quality of education and contribute to the Maldives' broader goals of knowledge economy development and the well-being of its citizens. This study sought to shed light on this critical aspect of the Maldives' educational landscape, ultimately paving the way for informed strategies to enhance teaching effectiveness and, by extension, the overall quality of education in the Maldives.

Teacher Empowerment: A Catalyst for Educational Progress
Teacher empowerment was a pivotal variable in the Maldives' educational landscape context. This study recognised the vital role of teacher empowerment in shaping teaching effectiveness within this unique setting. As it pertained to teachers, empowerment signified the need for educators to have a substantial voice in the ongoing school improvement process. It was imperative to consider the working conditions of teachers when envisioning educational reform (Puskulluoglu & Altinkurt, 2017; Rinehart et al., 1998). Empowering teachers gained prominence in education during the 1990s, rooted in the broader organisational empowerment movements of the 1980s (Rinehart & Short, 1994). As Thomas (2017) aptly suggested, schools should lend a keen ear to the insights of their most knowledgeable teachers regarding the intricacies of teaching and learning. Empowered teachers drove their professional growth and inspired their colleagues to strive for continuous improvement, ultimately benefiting student achievement.

To understand teacher empowerment more comprehensively, it was vital to recognise and consistently implement several critical steps (Al-Abri et al., 2017). One such effort involved allowing instructors to exercise their professional judgment when selecting daily curricula and lesson topics. Teacher empowerment encompassed six dimensions: professional growth, decision-making, self-efficacy, autonomy, status, and impact.
However, a noteworthy challenge in this research was the need for more published documents regarding teacher empowerment in the Maldives. Despite this challenge, the study remained committed to understanding and highlighting the pivotal role of teacher empowerment within the Maldivian educational context. Investigating this

variable aimed to uncover valuable insights that could inform strategies for enhancing teaching effectiveness and, ultimately, the overall quality of education in the Maldives.

Research Objectives: Understanding Teacher Empowerment and Teaching Effectiveness in Maldivian Education
This research embarked on a comprehensive exploration, delving into the intricate educational landscape of the Maldives. In alignment with the earlier discussions, the study sought to shed light on the condition and extent of teacher empowerment within Maldivian educational institutions, focusing on its direct relationship with teaching effectiveness. The study set forth the following research objectives to accomplish these overarching goals.

1. Evaluate the current levels of teacher empowerment in Maldivian schools to gain insight into the extent of empowerment within the school context.
2. Assess teaching effectiveness in the Maldives to understand how it manifested within schools in the region.
3. Examine the relationship between teacher empowerment and teaching effectiveness, elucidating the dynamics influencing the quality of education delivery in Maldivian schools.

Research Questions: Examining the Role of Teacher Empowerment in Maldivian Education
Aligned with the research objectives, this study endeavoured to address the following essential research questions:

1. To what extent did teacher empowerment influence teaching effectiveness in Maldivian schools?
2. How did teaching effectiveness manifest in the schools of the Maldives?
3. Was a statistically significant relationship between teacher empowerment and teaching effectiveness in Maldivian schools?

Research Hypothesis: Unraveling Educational Dynamics in the Maldives
Hypothesis: Teacher empowerment significantly and positively enhances teaching effectiveness in Maldivian education.

Introduction: Significance of the Study
The significance of this research extends across multiple dimensions, impacting policymakers, educators, and the broader field of educational knowledge. This study offers valuable insights and solutions by delving into the complex relationship between teacher empowerment and teaching effectiveness in the Maldives. In the following sections, we explore the implications of this research for policymakers, practitioners and the advancement of our understanding of educational dynamics in the Maldives. These insights have the potential to catalyse positive change in the realm of education, fostering improved learning outcomes and a more empowered teaching community.

Significance to Policymakers
This study's findings can potentially guide policymakers and educational authorities in the Maldives. By shedding light on the interplay between teacher empowerment and teaching effectiveness, this research can inform decisions regarding teacher development and educational reforms, ultimately leading to more effective teaching practices in Maldivian schools.

Significance to Practitioners
Additionally, this research directly benefits educators in the Maldives by emphasising the crucial role of teacher empowerment in elevating teaching effectiveness. It underscores the importance of creating an environment where teachers feel valued, motivated, and supported professionally. This study aims to enhance the overall quality of education in Maldivian classrooms, benefiting students and society.

Significance to the Advancement of Knowledge
This research investigates the intricate relationship between teacher empowerment and teaching effectiveness, contributing valuable insights to our understanding of educational dynamics in the Maldives. It offers critical knowledge that can inform strategies and policies to improve education quality in the country.

Limitations of the Study
While this research seeks to uncover the influence of teacher empowerment on teaching effectiveness in the Maldives, it is essential to acknowledge certain inherent limitations that shape the scope of this investigation.

Perception-Based Data

58

This study relies on teacher survey questionnaires to gauge their perspectives on the examined variables. It is essential to recognise that educators' perceptions regarding professional learning communities, teacher empowerment, and collaboration may introduce subjectivity into the research process. These opinions can influence interpretation, attitudes, and behaviours, affecting their survey responses.

Diverse Teaching Experience
Teaching staff in most schools in the Maldives includes educators with varying experience levels, from seasoned teachers with extensive classroom experience to fresh graduates with limited exposure. This diversity in teaching backgrounds may impact how participants perceive and respond to the study's variables. Therefore, the study selected respondents with a minimum of two years of teaching experience to ensure a more coherent basis for analysis.

Delimitations of the Study
Defining the scope and boundaries within which the study will operate is essential in any research endeavour. This section outlines the deliberate limitations, or "delimitations," placed on this study to ensure clarity, feasibility, and practicality. By delineating the geographical, organisational, and contextual parameters, we aim to provide a transparent framework that guides the interpretation of our findings within these defined constraints. These delimitations have been carefully considered to maintain the research's focus and relevance to the study's specific context.

Geographical Limitation: The paragraph explains that the study is limited to a particular region in the Maldives due to the challenges posed by the country's geographical distribution, consisting of 19 atolls. Given the logistical difficulties in conducting research across such a dispersed nation, this limitation is reasonable and understandable.

Selection of Provinces: The paragraph mentions that schools were selected from five provinces, excluding Male', the capital. This decision is justified based on the practical considerations of cost and time, which is a valid reason for limiting the study to specific regions.

Focus on Government Schools: The study's focus on government schools is also explained, and it makes sense if there is only one private school in the selected region. This decision provides a clear rationale for the choice of participants.

Inclusion of School Leadership: Lastly, the inclusion of school leadership in the study is mentioned, which adds depth to the research and helps understand the broader educational context.

Operational Definitions of Teaching Effectiveness and Teacher Empowerment Dimensions

Teaching Effectiveness
Teaching effectiveness, also called instructional quality, is a critical measure of the extent to which instructional objectives are achieved, encompassing overall intellectual aptitude and skills growth demonstrated by students' achievements (Akram & Zepeda, 2015; Evans, 2006). In this study, teaching effectiveness is evaluated based on five fundamental dimensions:

Subject Matter Knowledge: This dimension pertains to a teacher's depth of understanding regarding the subject matter, including subject-specific information, concepts, principles, pedagogical reasoning, and decision-making. It comprises eight items (Item Number 1 to 8).

Instructional Planning and Strategies: Effective teaching requires diverse strategies and techniques to optimise student learning. This dimension includes seven items (Items 9 to 15) to gauge the teacher's ability in this area.

Assessment: Learning assessment involves evaluating student performance, where teachers collect, analyse, and utilise data to gauge learner progress. This dimension comprises five items (Item Number 16 to 20) related to assessment practices.

Learning Environment: Creating a conducive and engaging learning environment is crucial for nurturing student growth. This dimension evaluates this aspect with five items (Item Number 21 to 25).

Effective Communication: Effective communication is essential for teacher-student interactions. This dimension assesses communication skills and practices with three items (Item Number 26 to 28).

The study utilises a four-point Likert-type response scale, where respondents rate their responses on a scale ranging from "Never" (1), "Sometimes" (2), "Often" (3), to "Always" (4), to evaluate teachers across these

dimensions. The instrument contains 28 items for teaching effectiveness and additional items related to teacher empowerment, ensuring a comprehensive assessment of both constructs within the study while using the Likert scale for data collection.

Teacher Empowerment

Teacher empowerment in Maldivian schools refers to teachers' perceived autonomy, authority, and decision-making abilities concerning their teaching practices, curriculum choices, classroom management, professional development, and participation in educational policies. It encompasses their control over their work environment. This concept is assessed using a validated survey measuring teachers' perceptions of autonomy, decision-making authority, and empowerment. The study employs the School Participant Empowerment Scale (SPES), which assesses teachers' perceived level of empowerment across six dimensions developed by Short and Rinehart (1992):

Decision Making: This dimension centres on teachers' involvement in critical decisions directly impacting their work, granting them greater control over their classroom environment and instilling a sense of value among their colleagues. It comprises eight items (Item Number 1 to 8).

Professional Growth: The Professional Growth dimension pertains to teachers' perceptions of the opportunities their school provides for continuous professional development involving ongoing learning, knowledge expansion, and skill development within the school context. It consists of six items (Item Number 9 to 14).

Status: The Status dimension addresses the recognition and appreciation teachers receive from their peers concerning their professional expertise. It includes five items (Item Number 15 to 19).

Self-efficacy: Teacher self-efficacy is pivotal in cultivating a community of empowered educators in school improvement efforts. This dimension comprises six items (Item Number 20 to 25).

Autonomy: Autonomy underscores the importance of teachers feeling a sense of independence in their work, enabling them to make informed decisions that influence various aspects of their professional lives. It consists of three items (Item Number 26 to 28).

Impact: The Impact dimension encompasses teachers' sense of effectiveness and influence within the school community, including feeling valued for their contributions and having confidence that their opinions and perspectives will be respected and considered. It includes six items (Item Number 29 to 34).

The SPES questionnaire consists of 34 items, with each component (dimension) comprising a set number of items. Respondents provide their ratings using a 4-point Likert-type scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (4), to evaluate their perceptions of teacher empowerment across these dimensions. This comprehensive instrument forms the foundation for assessing teacher empowerment in the Maldives.

LITERATURE REVIEW
Introduction

The relationship between teacher empowerment and teaching effectiveness is central to this research. This literature review dives into the intricate dynamics of teacher empowerment and teaching effectiveness within the Maldivian context. While previous studies have explored various facets of teaching effectiveness, we focus on comprehending the intricate interplay between teacher empowerment and teaching effectiveness. This review aims to provide a comprehensive understanding by elucidating the definitions, conceptual foundations, theoretical frameworks, and recent research findings on teacher empowerment and its impact on teaching effectiveness in the Maldives. The foundation of our research is rooted in the notion that teacher empowerment acts as a catalyst for enhancing teaching effectiveness. As we explore the nuances of teacher empowerment and its dimensions, this chapter serves as the cornerstone for our inquiry into the educational landscape of the Maldives.

National Curriculum Framework (NCF) Reform and Challenges

The NCF reform, initiated in 2015, encompasses all grades and involves defining values, expected learning outcomes, and critical skills. This reform effort includes the development of teaching materials and teacher training programs. However, external school reviews have identified pressing challenges that demand attention. These challenges include enhancing classroom teaching and learning through school-based, practical training focused on lesson planning, teaching for understanding, and higher-level cognitive skills. Moreover, improving the implementation of new curricula in small island settings and refining the student assessment process are essential aspects. Addressing inadequate parental engagement is also crucial (MoE, 2019). Despite curricular reforms and learning outcome objectives, national assessments (NALO) in 2016 and 2017 did not significantly improve learning outcomes, particularly high-level cognitive skills. Instead, stagnation was observed in some

cases. Furthermore, persistent geographic and gender disparities in learning outcomes remain a concern (MoE, 2019).

Teacher Empowerment and Teaching Effectiveness in the Maldives
Teacher empowerment plays a pivotal role in shaping the educational landscape in the Maldives and influencing teaching effectiveness. In this context, teacher empowerment refers to the authority, support, and professional development provided to educators, enabling them to enhance their teaching practices and improve student learning outcomes. Studies have underscored the importance of teacher empowerment in addressing the challenges faced by the Maldivian education system. For instance, Nasir et al. (2022) emphasise that education quality remains a critical concern despite achieving universal access to primary education. The study suggests that teacher empowerment is urgently needed to enhance teaching quality. Recognising the significance of teacher empowerment, the Maldives Ministry of Education (MoE) has implemented policies to support it. One such approach, the Teacher Professional Development Policy (2015), mandates that every teacher complete at least fifteen hours of School-Based Professional Development (SBPD) annually. This policy aims to empower teachers by providing them with the resources and opportunities to enhance their teaching skills and effectiveness.

Furthermore, decentralising professional development through establishing Teacher Resource Centers (TRCs) in 2007 has been a notable initiative to empower teachers and reduce external facilitator dependency (Di Biase, 2019). However, recent reports indicate that TRCs have faced challenges and have become inactive (UNICEF Case Study Report, 2021). This underscores the need for continued efforts to empower teachers effectively.

In conclusion, teacher empowerment is pivotal in improving teaching effectiveness in the Maldives. It encompasses various facets, including professional development, support, and autonomy for educators. As the Maldivian education system strives to enhance the quality of education and student learning outcomes, ongoing investment in teacher empowerment remains a critical priority.

Enhancing Education Quality through Teacher Development
Several dimensions have emerged as pivotal in elevating education quality in the Maldives, with the quality of school teachers at the forefront. The Ministry of Education (MoE) in the Maldives acknowledges the profound impact of teachers on education quality and is committed to enhancing their teaching effectiveness, skills, motivation, and overall performance. The MoE has devised a comprehensive quality assurance mechanism for pilot testing, refinement, and nationwide implementation. A strategic policy initiative also involves establishing regular national learning outcomes assessments, instrumental in shaping policy formulation and program development, and ensuring educational strategies align with desired outcomes (Shafeeu, 2019).

Furthermore, the MoE has undertaken specific policy measures to enhance teaching effectiveness, including strengthening support systems and revitalising teacher resource centres established in the atolls (Maldives Education Sector Analysis, 2019). By focusing on teacher development and support, the Maldives is taking significant strides toward raising education quality and ensuring students receive a high-quality education.

Enhancing Education Quality through Teacher Empowerment
Teacher quality is a paramount concern in improving education quality in the Maldives. Policymakers have initiated reforms to address this issue and align with SDG 4 targets (Shafeeu, 2019). These reforms encompass continuous professional development for in-service teachers, minimum qualification requirements, and targeted training methods. Despite these efforts, challenges persist, including the placement of unqualified teachers and disparities between atolls and urban areas (Nazeer, 2017; South Asia Human Development Sector Enhancing the Quality of Education in the Maldives, Report 51). Teacher quality profoundly influences student learning outcomes, making it a focal point of educational policies. Efforts are underway to ensure that all teachers hold at least a diploma and complete annual professional development. Geographic challenges are being addressed through innovative training methods (Maldives Education Sector Analysis, February 2019).

Education Quality and Teacher Effectiveness Globally
Education quality is central to national development, leading to initiatives such as establishing junior colleges and training centres for professional development (The Future of Education and Skills, Education 2030, 2018). Globally, education is recognised as a linchpin of national progress, and teacher effectiveness is closely tied to student success (Hanushek, 2011).

Underpinning Theories: Vygotsky's Social Constructivism and the Empowerment Paradigm
To better illuminate the dynamics at play and underscore the critical role of teacher empowerment in examining teaching effectiveness in the Maldives, two fundamental paradigms are drawn upon: Vygotsky's Social Constructivism and the Empowerment Paradigm.

Vygotsky's Social Constructivism
Vygotsky's Social Constructivism, developed by Lev Vygotsky in 1978, is a significant educational theory that posits that knowledge and understanding are co-constructed through social interactions. This theory emphasises that learning is a social process wherein meaning and significance emerge through collaborative engagement. Vygotsky's theory aligns seamlessly with the central focus of our study, which revolves around teacher empowerment and its profound impact on teaching effectiveness.

In the Maldivian educational system context, Vygotsky's Social Constructivism highlights the importance of collaborative and interactive learning experiences. It suggests that when teachers are empowered and encouraged to engage in collaborative practices, they can create an environment where students actively construct their knowledge. The theory emphasises that through professional development and autonomy, teacher empowerment can enable educators to facilitate more effective and engaging learning experiences for their students. By emphasising the social aspect of learning and the joint construction of knowledge, Vygotsky's theory provides a robust framework for comprehending how teacher empowerment shapes teaching effectiveness within the unique context of the Maldivian educational system.

The Empowerment Paradigm
In contrast, the Empowerment Paradigm, first proposed by Rosabeth Moss Kanter in 1977 and further developed by Conger and Kanungo in 1988, posits that individuals or groups can gain control, autonomy, and authority over their circumstances. This empowerment ultimately leads to enhanced performance and effectiveness. This paradigm underscores the significance of providing individuals, in this case, teachers, with the means to influence their professional roles, decision-making processes, and self-efficacy.

Within the Maldivian educational context, the Empowerment Paradigm highlights the importance of granting teachers the autonomy and authority to make meaningful classroom decisions. When teachers feel empowered, they are more likely to take ownership of their teaching practices, adapt to their students' unique needs, and foster continuous improvement. Empowered teachers are better equipped to navigate challenges, implement innovative teaching strategies, and contribute positively to the overall effectiveness of the education system.

The Synergy of Social Constructivism and the Empowerment Paradigm
A deeper and more holistic understanding emerges by merging Vygotsky's Social Constructivism with the Empowerment Paradigm. This combined framework illuminates how teacher empowerment, grounded in collaborative and social processes, plays a pivotal role in shaping the educational landscape and, consequently, affecting teaching effectiveness. It suggests that teacher empowerment influences teaching practices and empowers students as active participants in their learning journey. This combined framework offers a comprehensive perspective on how empowering teachers within a socially constructivist context can lead to more effective and impactful teaching practices in the Maldivian educational context.

In summary, Vygotsky's Social Constructivism and the Empowerment Paradigm provide valuable theoretical foundations for our study. They underscore the importance of collaborative learning experiences and teacher autonomy in enhancing teaching effectiveness. When applied to teacher empowerment in the Maldives, these theories shed light on how empowering teachers can lead to more engaging and effective educational practices, ultimately benefiting both educators and students.

Teaching Effectiveness Unveiled
Teaching effectiveness stands as a cornerstone in educational systems across the globe, bearing a profound impact on student outcomes (Akram & Zepeda, 2015; Lerner & Callina, 2013). Notable investments have been made in teacher professional development to enhance teaching effectiveness, yet the evidence of their impact remains a subject of exploration (Sims & Fletcher-Wood; Garet et al., 2011). Bridging the divide between professional development and classroom practice emerges as an imperative task. Effective teaching significantly shapes student participation, engagement, achievement, and social outcomes. The classroom environment, meticulously crafted through effective teaching, accounts for a substantial portion of student performance, reaching up to 59% or even more (Han & Yin, 2016). Instructional quality, a multidimensional construct, underscores the intricate relationship between teaching and student outcomes (Scherer et al., 2021).

Empirical evidence supports the influential role of teacher-student interactions on engagement and performance (Pianta et al., 1997; Bae et al., 2021). This study underscores the importance of teaching effectiveness, mainly focusing on active learning for students with diverse abilities. Beyond individual teacher capacity, contextual factors also contribute to quality teaching, warranting a thorough exploration of elements and behaviours influencing teaching effectiveness.

Teaching effectiveness remains paramount, spurring the establishment of ongoing teacher-professional learning programs (Avalos, 2011; de Vries et al., 2022). Nevertheless, the need for robust evidence linking professional development to classroom practice persists. In the absence of such evidence, two alternative approaches gain traction. One seeks to raise teaching standards through stringent selection criteria, while the other concentrates on sophisticated teaching evaluation. Both approaches, however, confront limitations, underscoring the urgency of improving teaching effectiveness globally (Grissom & Youngs, 2016; Gore et al., 2017). Prioritising teacher support and development emerges as an urgent strategy, acknowledging its moral and pragmatic significance (Ogunode et al., 2022).

Defining Teaching Effectiveness
The concept of teaching effectiveness has ignited a global debate, and a unanimous definition remains elusive due to varying opinions on what constitutes good teaching. Researchers have offered diverse descriptions. Teaching effectiveness is often synonymous with teacher effectiveness (Redding, 2019). It encompasses attaining instructional objectives and cultivating intellectual aptitude and skills in students, embracing aspects such as communication skills, motivation, and rewards during teaching (Akram & Zepeda, 2015; Sidiq et al., 2021). Teaching effectiveness is also intricately linked to creating an optimal learning environment, encompassing an awareness of course material and the development of desirable learning conditions (Evans, 2006; Odewumi et al., 2019). It effectively translates teachers' knowledge into quality student education (Akram & Zepeda, 2015). Furthermore, teaching effectiveness entails the dynamic interaction between teachers and students, enriching students' knowledge and encompassing leadership, encouragement, incentives, and inspiration (Evans, 2006; Sanders, 1999; Wenglinsky, 2000).

In the realm of education, effective teaching holds immense significance as it not only facilitates student learning but also elevates academic performance. Effective teaching is a deliberate endeavour that necessitates the alignment of objectives, learners, content, and teachers (Tennant, 2019). Changing the educational framework alone does not enhance student learning; instead, transforming teaching methods makes a difference (Elmore et al., 2009). One must assess how students' performance improves to gauge teaching effectiveness, aligning with the instructional objectives. It measures changes in student knowledge, motivation, adaptability, and stress management following instruction (Owan et al., 2022). Beyond certifications, pedagogical skills and knowledge play a pivotal role in teacher quality (Marcolini, 2022). Meaningful interaction, feedback, and equitable treatment are critical determinants of teaching effectiveness (Chen et al., 2020).

Figure 1
Dimensions of Teaching Effectiveness

Teaching Effectiveness: A Multi-Dimensional Perspective
The South Asia Human Development Sector recommended establishing professional teacher standards to address the challenges in teacher education in the Maldives. The study adopts Pakistan's national professional standards for teachers, developed in collaboration with the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 2008 (Stehle & Peters-Burton, 2019), to measure teaching effectiveness.

As depicted in Figure 1, Danielson's framework, a widely recognised model in the United States, comprises five key dimensions: Subject Matter Knowledge, Instructional Planning and Strategies, Assessment, Learning Environment, and Effective Communication. The project aims to enhance teacher effectiveness and assess its impact in the Maldives.

Subject Matter Knowledge
A teacher's effectiveness is significantly influenced by their command of the subject matter, profoundly impacting student learning and achievement (Danielson, 2007; Akram & Zafar, 2019). Subject Matter Knowledge encompasses the depth and organisation of knowledge (Lombardi et al., 2020). It entails a teacher's grasp of subject-specific information, concepts, principles, and pedagogical decision-making abilities (Stronge, 2010; Leeuwen & Janssen, 2019). Effective teachers adeptly align their teaching with relevant curriculum standards, incorporating essential components and fostering higher-level thinking skills (Stronge, 2018). They exhibit precise subject knowledge, establish connections between prior and current learning, possess pertinent subject-specific skills, and comprehend the developmental needs of their students (Stronge, 2018). Research suggests a positive correlation between a teacher's robust content knowledge and student learning, especially in fields like mathematics (Chan, 2020). Nevertheless, some studies indicate minor, inconclusive associations between subject matter knowledge and student outcomes (Tennant, 2019).

Instructional Planning and Strategies
Evaluating teacher effectiveness involves assessing their ability to employ diverse instructional strategies and techniques to optimise student learning outcomes (Stronge, 2018). Shulman (1986; Dickinson, Abd-El-Khalick & Lederman, 2000) assert that effective teachers should employ strategies that effectively reshape students' understanding. Effective teachers are adept at fostering student engagement, motivation, and sustained attention to lessons (Stronge, 2018). Extensive research highlights the close connection between teachers' instructional methods and student learning (Marzano, 2007; Stronge, 2018). Marzano's (2012) comprehensive examination of teaching strategies in over 300 experimental studies revealed a significant 16 percentile point increase in student achievement when teachers effectively employed these strategies.

Assessment
Assessment for learning involves a process in which teachers collect, analyse, and utilise student performance data to gauge their progress (Stronge, 2018). It offers students insights into the material the teacher covers, providing diagnostic information about their readiness to grasp new content while serving formative and summative purposes. Effective teachers, as exemplified by Stronge (2018), employ assessment data to set expectations for students, employ various formal and informal assessment methods, maintain comprehensive student assessment records, and develop tools to assist students in identifying their learning needs. Research underscores the positive impact of assessment on student learning (Stronge, 2013 & Zepeda, 2013). Assessment that aligns with learning objectives, coupled with regular feedback, profoundly engages students in the learning process and is adequately documented through record-keeping influences student learning (Black & Wiliam, 1998; Stehle & Peters-Burton, 2019). Formative assessment, in particular, has been found to positively affect student achievement, especially for those with lower performance (Stehle & Peters-Burton, 2019).

Learning Environment
In the field of education, crafting an effective learning environment stands as a crucial imperative. This entails meticulously arranging the classroom's physical setting and educational resources to optimise the educational outcomes. Furthermore, it entails the establishment of explicit guidelines and procedures for classroom management. Proficient educators excel in this dimension, exhibiting fewer disruptive behaviours compared to their less effective counterparts. A recent study conducted by Al-Maroof et al. (2021) underscores the critical importance of classroom instruction and the overall atmosphere in shaping students' capabilities. A positive classroom environment cultivates improved interactions between students and teachers, maximises instructional time, and elevates students' academic achievements.

Effective Communication
Effective communication is a crucial aspect of teaching effectiveness. Successful teachers communicate clearly with students and serve as language role models. They actively listen, maintain multiple communication channels with school and home, and adhere to school policies for student information sharing. Effective educators use verbal, non-verbal, and written communication techniques, adapting their lessons to students' ages and abilities. Open and warm communication with students, parents, and the community improves teacher and student performance. Effective teachers also collaborate with colleagues to address student issues, emphasising the importance of ongoing communication with students (Stronge, 2018).

Teacher Empowerment: A Multi-Dimensional Perspective
Teacher empowerment operates at multiple levels, from school leadership encouraging teacher involvement in decision-making to providing opportunities for training and skills development (Atrizka et al., 2020). However, a top-down, mandatory approach, even with appropriate training, can create confusion and undermine trust. Creating a collaborative environment in schools is crucial for teacher empowerment. It encourages teacher buy-in, information sharing, and professional growth (Short, 1992). To succeed in teacher empowerment, schools must

motivate teachers to collaborate, recognise their contributions, and instil confidence in their abilities (Bach, 2019; Washburn & Olbrys, 2018).

Defining Teacher Empowerment:
Teacher empowerment is about individuals in the education system developing the competence to take charge of their growth and address challenges (Short, 1994). It revolves around the belief that individuals have the skills to improve their work environment. Several dimensions characterise teacher empowerment, including decision-making, professional development, status, self-efficacy, autonomy, and influence (Short and Rinehart, 1992). These dimensions shape teachers' empowerment experiences (**Figure 2**), and studies suggest that more decision-making opportunities make teachers feel more empowered (Rinehart and Short, 1991).

1. Decision Making: This involves teachers participating in choices affecting various aspects of teaching and learning, such as curriculum and scheduling. Research shows that active participation in decision-making leads to higher teacher engagement and job satisfaction (Ngussa & Gabriel, 2017; Price & Nelson, 2018).

Figure 2
Teacher Empowerment Dimensions
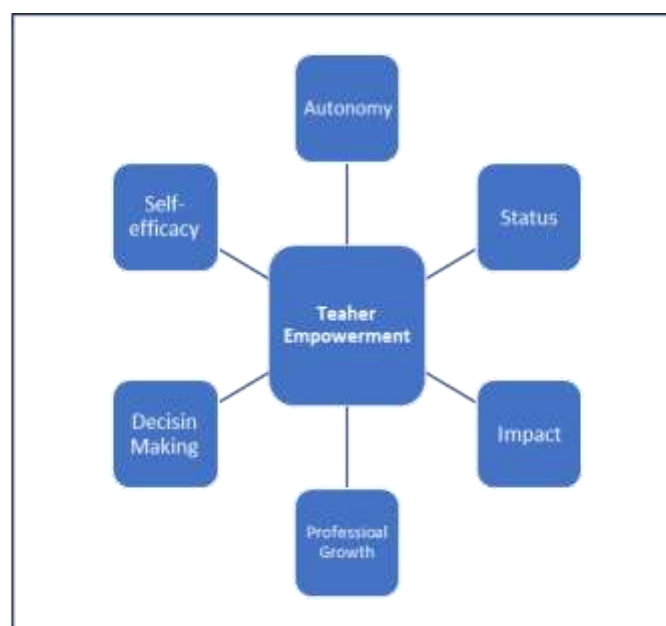
2. Professional Growth: Emphasizes continuous learning and expertise in one's subject area. Collaborating with peers and engaging in professional learning enhances teaching effectiveness (Berry et al., 2010a; Owen, 2016).

3. Status: Reflects the professional respect teachers receive from various stakeholders. Involving teachers in decisions impacting their careers can improve their status and positively influence student achievement (Whitaker & Moses, 1990; Lambert, 2020).

4. Self-Efficacy: Refers to teachers' belief in their ability to perform their jobs effectively. Building competence increases self-efficacy, and teachers with higher self-efficacy feel more empowered (Butera et al., 2021). It's linked to effective school development and change initiatives (Berry et al., 2010a).

5. Autonomy: Involves teachers controlling certain aspects of their work, which fosters interest in education and self-esteem (White, 1992). Autonomy is associated with successful decision-making and improved student performance (Berry et al., 2010b).

6. Impact: Reflects teachers' desire to influence the teaching and learning process and their organisation's value for their contributions. However, some teachers have limited impact due to limited opportunities (Berry et al., 2007).

In summary, teacher empowerment is vital for improving education, and its dimensions encompass decision-making, professional growth, status, self-efficacy, autonomy, and impact. Balancing these dimensions can lead to a more empowered and effective teaching workforce.

Empowering Teachers: Insights from Maslow's Hierarchy Theory
Maslow's Hierarchy of Needs identifies five fundamental human needs: survival, safety, affiliation, self-esteem, and self-actualisation (Okumbe, 2007). According to Maslow, individuals are driven to fulfil these needs, with their behaviour directed toward satisfying a particular level of demand at any given time. This hierarchy implies that the lower-level needs must be met before higher-order needs become relevant (Armstrong, 2009). In the context of education and teacher empowerment, Maslow's theory underscores the significance of creating an environment conducive to addressing educators' needs effectively. For instance, in primary schools, education leaders should prioritise fulfilling teachers' basic needs, such as survival and safety (Okumbe, 2007).

Conversely, secondary school teachers often have their basic needs met and can benefit from an environment that nurtures growth and higher-order needs. Such an environment encompasses opportunities for diverse teaching methods, autonomy in work schedules, and increased accountability, enabling teachers to realise their full potential. Neglecting to provide such an enabling environment can lead to frustration, reduced performance, and high turnover (Okumbe, 2007).

In summary, Maslow's Hierarchy of Needs highlights the role of educational leaders in establishing environments aligned with teachers' needs, ultimately fostering their empowerment. Empowered teachers are better equipped to fulfil their education system roles effectively.

Figure 3
Research Conceptual Framework
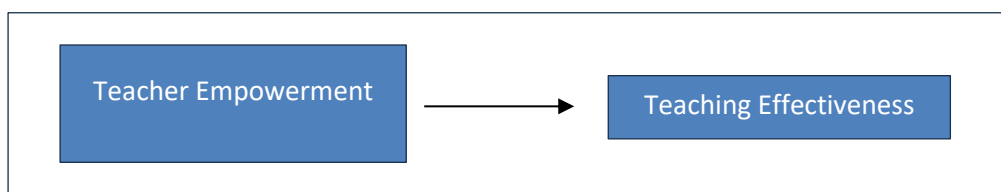
Conceptual Framework: Exploring the Impact of Teacher Empowerment on Teaching Effectiveness in the Maldives
This research delves into the connection between two key variables: teacher empowerment and teaching effectiveness, as illustrated in **Figure 3**. In this framework, teacher empowerment is the independent variable, while teaching effectiveness is the dependent variable. The framework highlights the direct influence of teacher empowerment on teaching effectiveness within the context of the Maldives.

Hypothesis Development: Teacher Empowerment and Teaching Effectiveness
In today's rapidly evolving world, governments are reforming education to better equip students for modern life and work challenges. Teachers wield the most significant influence on student success, making the quality of teachers a global priority in education (Asia Society, 2012).

Hypothesis (H): Teacher Empowerment significantly positively impacts Teaching Effectiveness.

This hypothesis is grounded in teachers' critical role and potential to influence student outcomes. The research underscores the direct correlation between teacher quality, improved learning experiences, and academic achievement (Jensen, 2012; Wang, 2015).

Moreover, studies highlight how leadership attributes affect teaching quality and learning outcomes. Fostering teacher learning and development is a vital leadership characteristic associated with enhanced student outcomes (Leithwood & Jantzi, 2008; Leithwood et al., 2004; Robinson et al., 2008). The hypothesis proposes that empowered teachers are more likely to exhibit leadership qualities and engage in teaching practices that enhance Teaching Effectiveness. Empowerment encompasses teachers' confidence, autonomy, and decision-making abilities, influencing their teaching methods and student learning.

This aligns with research suggesting that empowered teachers create engaging learning environments, adapt to diverse student needs, and contribute positively to the overall quality of education (Robinson et al., 2008). This hypothesis will undergo empirical testing in the Maldives, potentially offering insights for regional education policies and practices.

RESEARCH METHODOLOGY

This section outlines the research methodology employed to investigate the influence of teacher empowerment on teaching effectiveness in the Maldives, following a scientific and rigorous approach. It encompasses key elements, including Research Design and Approach, Sample Selection and Characteristics, Survey Instrumentation, Data Collection Protocols, and Data Analysis Techniques.

Research Design and Sample Selection

A quantitative research design investigated the relationship between teacher empowerment and teaching effectiveness in Maldivian schools. Surveys were utilised to gather data, enabling objective measurement and statistical analysis, thereby enhancing the credibility of the findings (Creswell, 2005). For the study's scope, a cross-sectional survey design was adopted, selecting participants based on predefined criteria to gain insights into current attitudes and practices regarding teaching effectiveness. Surveys were administered online through Google Forms to ensure confidentiality.

Sample Selection and Characteristics

The research encompassed teachers in public schools across four Maldivian provinces: South Province, North Province, North Central Province, and South-Central Province. These provinces were chosen for their representativeness and practicality (Christensen, 2014). The research exclusively focused on this population to draw comprehensive inferences (Christensen, 2014). Using probability sampling, a sample of 390 teachers was selected, strategically ensuring proportional stratified random sampling to maintain equitable sample sizes (Creswell, 2005; Gay et al., 2012). Table 1 presents the distribution of schools and teachers across the selected Maldivian provinces, providing a snapshot of the population targeted for the study.

Table 1

Teachers and Schools Count by Provinces

PROVINCE	NUMBER OF SCHOOL	NUMBER OF TEACHERS
South Province	12	928
North Province	45	1764
North Central Province	29	913
South Central Province	26	899
TOTAL	**112**	**4504**

Population and Sampling

The study targeted all teachers in public schools across four Maldivian provinces: South Province, North Province, North Central Province, and South-Central Province. These provinces were chosen for their representativeness and practicality (Christensen, 2014).

Sampling Methodology

A meticulous sampling methodology was employed to ensure the robustness of the data. Using probability sampling, 390 teachers were selected to represent the four provinces. To maintain equitable sample sizes, a proportional stratified random sampling approach was utilised, as recommended by Creswell (2005) and Gay et al. (2012).

Table 2
Number of Schools Required from Each Atoll and Actual Number of Teachers Selected as Sample

PROVINCE	ATOLL	NO OF SCHOOLS	NO OF TEACHERS	TOTAL SAMPLE FROM THE PROVINCE	TOTAL SCHOOLS
SOUTH PROVINCE	GN	3	284	82	3
	SEENU	9	644		6
NORTH PROVINCE	BAA	12	400	152	3
	LH	4	233		2
	NOONU	13	509		4
	RAA	16	622		5
NORTH CENTRAL	AA	8	271	78	2
	ADH	10	321		3
	KAAFU	8	243		2
	VAAVU	3	78		1
SOUTH CENTRAL	TH	13	441	78	4
	LAAMU	13	458		4

Innovative Atoll-Based Sampling Strategy
Each atoll within the provinces was treated as a stratum in a unique and innovative approach. A specific formula was employed to calculate sample sizes for each atoll based on the percentage of teachers present. This method guaranteed proportional representation and enriched the diversity of the sample (Gay et al., 2012).

School Selection and Teacher Sampling
To ensure representative perspectives, ten teachers were selected from each school. Schools were randomly chosen within each atoll. For data reliability, a minimum of 30 teachers per school was required. In cases where schools fell short of this threshold, random teacher selection was employed, ensuring diversity in gender, age, and experience levels, as Brown (1967) and Hoe & Hoare (2012) advised.

Systematic Teacher Sampling
Ten teachers were systematically sampled from each selected school, resulting in a well-rounded and representative sample of 390 (Brown, 1967).

Research Instrument
To collect participant data, two surveys were employed: one designed to assess teaching effectiveness and another to measure teacher empowerment (Simon, 2006). This dual-instrument approach allowed for a comprehensive evaluation of the research objectives. The research instruments, comprising the surveys used to assess teaching effectiveness and teacher empowerment, are included in the **appendix** section of this document for reference. Please refer to the appendix for the complete survey questions and details.

Teaching Effectiveness Measurement
The Self-assessment Instrument for Teacher Evaluation (SITE II) was used, aligning with national professional standards for teachers in Pakistan. It encompassed five dimensions: subject knowledge, instructional planning and strategies, assessment, learning environment, and effective communication (Akram & Zepeda, 2015).

Teacher Empowerment Measurement
The School Participant Empowerment Scale (SPES) assessed teachers' perceived empowerment across six dimensions: involvement in decision-making, opportunities for professional growth, earned status and respect, self-efficacy, autonomy, and impact on others (Short & Rinehart, 1992).

Pilot Study Overview
A pilot study was conducted in two schools in Addu City, Maldives, to ensure data transparency, instrument validity, reliability, and questionnaire administration feasibility (Fraser et al., 2018; Chua, 2016). A sample of 30 participants, representing characteristics similar to the target population, participated in this phase.
Instrument Reliability Assessment
Reliability was assessed using Cronbach Alpha values, with high-reliability scores (Sekaran, 2003; Bryman, 2012; Hair et al., 2010). Both teaching effectiveness and teacher empowerment instruments demonstrated strong reliability, surpassing established benchmarks (Nunnally, 1978).

Data Collection Procedure
Surveys were administered with permission from the Ministry of Education and school heads. School administrators provided contact information.

Data Analysis
Data were analysed using IBM SPSS version 23.0 and PLS-SEM. Descriptive statistics were used for respondent profiles, and inferential analysis, including the PLS Algorithm and Bootstrapping Moderation Analysis, was applied to test research hypotheses effectively.

RESULTS
Overview
This section briefly summarises the research findings and is organised into several sections. The first section covers the primary study's response rate, while the second section details the data validation process, including checks for inconsistencies and incomplete data. The third and fourth sections provide an overview of sample characteristics, including means and standard deviations of research variables.

Response Rate

An online questionnaire was developed using Google Forms, and data collection occurred over one and a half months, beginning on July 24, 2021. A total of 405 online survey links were distributed, resulting in 396 returned questionnaires. Six questionnaires were excluded during the data cleansing, leaving 390 questionnaires suitable for statistical analysis. This sample size met the minimum requirements outlined in section 3.4.2 of the previous chapter. Table 3 offers a detailed breakdown of survey response rates.

Table 3
Response Rate

Questionnaires sent	405
Questionnaires returned	396
Responses valid for statistical analyses	390

Data Screening
Before the statistical analysis, comprehensive data preprocessing was conducted to identify and address any irregularities encountered during data collection. This process involved scrutinising the data for discrepancies and detecting missing values, outliers, and potential standard method bias (CMB).

Checking for Errors
A meticulous data review was undertaken to identify and rectify anomalies or errors. Each questionnaire item was thoroughly examined to ensure accurate data entry, with no errors detected in assigning codes to research variables. This step was crucial to uphold the study's validity. Additionally, an investigation into the range of minimum and maximum values for the variables within the model was performed as recommended by Sekaran and Bougie (2016).

Investigating Missing Values
The issue of missing data, whether due to participant non-response or data entry errors, was addressed using SPSS software. Careful handling of missing data is vital to prevent statistical distortions. Fortunately, no nonexistent data issues were identified in this research.

Detecting Outliers
A case-wise approach and Cook's Distance technique were employed to identify outliers, focusing on the linear regression component for the endogenous variable (firm performance). While some scholars recommend identifying outliers when residual fluctuations exceed +/-3, no outliers were found in this study. Multivariate outliers were also absent. Consequently, the analysis proceeded with a dataset of 390 respondents.

Table 4
Findings of Skewness and Kurtosis Values

Variable	N	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Teacher Empowerment	390	-3.90	0.123	1.148	0.245
Teaching Effectiveness	390	0.018	0.123	1.445	0.245

Normality Test
Although PLS-SEM does not assume normality, a normality test was conducted on the data. This test involved an evaluation of skewness and kurtosis to determine whether the data exhibited characteristics of a normal distribution. This precautionary measure aimed to ensure that the data remained consistent with a normal distribution, as data significantly deviating from normality can introduce challenges when assessing parameter significance (Hair et al., 2014). Severe departures from normality are typically indicated by skewness (SK) and kurtosis (KT) values exceeding 2.828 and 12, respectively (Kock, 2015).

Hair et al. (2014) state that the skewness and kurtosis test considers data normal when study items closely align with the standard deviation. Generally, acceptable skewness values fall within the range of -3 to +3, while acceptable kurtosis values range from -10 to +10 (Brown, 2006). However, it is essential to note that PLS-SEM analysis does not require the data to conform to a normal distribution. Table 4 presents the findings of the skewness

and kurtosis values for the variables under consideration, namely Teacher Empowerment and Teaching Effectiveness:

Linearity Assessment
This study assessed the linearity between the independent variable, Teacher Empowerment, and the dependent variable, Teaching Effectiveness. Linearity was examined through simple regression analyses, checking if Teacher Empowerment's changes displayed a linear relationship with Teaching Effectiveness. Traditionally, linear relationships show that expected scores follow a linear pattern with standard residuals within -3.3 to +3.3 (Tabachnick & Fidell, 2007). However, this study follows Hair et al. (2017a), indicating that perfect linearity or normality isn't mandatory for using Partial Least Squares Structural Equation Modeling (PLS-SEM). Figure 4.1 reveals that while data distribution is not strictly normal, it doesn't impede using PLS analysis for this research. Thus, the linearity assessment, though not perfectly regular, aligns with PLS-SEM suitability for the study.

Descriptive Analysis
This section provides a detailed examination of the research findings, employing descriptive statistics to illuminate the socio-demographic characteristics of the study's participants.

Socio-Demographic Profile of Respondents

Table 5
Demographic Profiles of Respondents

Category	Description	No. of Respondents	%
Location of School	Alifu Alifu Atoll	24	6.2
	Alifu Dhaalu Atoll	30	7.6
	Baa Atoll	30	7.6
	Gnaviyani Atoll	30	7.6
	Kaafu Atoll	20	5.1
	Laamu Atoll	40	10.1
	Lhaviyani Atoll	20	5.1
	Noon Atoll	36	9.2
	Raa Atoll	50	12.6
	Seenu Atoll (Addu)	60	15.2
	Thaa Atoll	40	10.1
	Vaavu Atoll	10	2.5
Gender	Female	235	59.3
	Male	155	39.7
Education	Bachelor Degree	175	44.8
	Diploma	64	16.2
	Doctorate Degree	1	0.3
	Master Degree	150	37.9
Years of Experience	Less than 2 years	3	0.8
	More than 3 years	387	99.2

The study meticulously gathered demographic data from respondents, encompassing critical aspects such as school location, gender, educational qualifications, and professional experience.

School Location: Participants were drawn from various school locations across the Maldives. Seenu Atoll (Addu) boasted the highest representation, with 60 respondents (15.2%), closely followed by Raa Atoll, where 50 respondents (12.6%) were situated. The distribution of respondents across other atolls is detailed in Table 5.

Gender: Gender composition among respondents revealed a majority of females, constituting 59.3% (235 respondents), while males accounted for 40.7% (161 respondents).

Education: Respondents exhibited a diverse range of educational attainments. A significant portion, 45.7% (181 respondents), held bachelor's degrees, while 37.9% (150 respondents) possessed master's degrees. Additionally, 16.2% (64 respondents) had diploma-level qualifications, and a solitary respondent (0.3%) boasted a doctorate.

Years of Experience: The study probed the professional experience of respondents. A staggering majority, 99.2% (393 respondents), reported having more than three years of experience, whereas a mere 0.8% (3 respondents) indicated less than two years of experience.

Assessing Teacher Empowerment and Teaching Effectiveness in the Maldives
This analysis aims to evaluate Teacher Empowerment and Teaching Effectiveness levels in the Maldives using mean score analysis, as summarised in Table 6.
Mean Score Interpretation

Mean scores provide valuable insights into the findings, and for interpretation, Wiersma's (2000) classification is applied:

Table 6
Mean Score Interpretation

Mean Score	Interpretation
1.00-2.00	Low
2.01-3.00	Moderate
3.01-4.00	High

Assessment of Teacher Empowerment in the Maldives

Table 7 presents the level of Teacher Empowerment in the Maldives across various dimensions:

Table 7
The Level of Teacher Empowerment

Dimensions of teacher empowerment	Mean	Standard Deviation	Level
Decision Making	2.59	0.67	Moderate
Professional Growth	3.03	0.52	High
Status	3.20	0.48	High
Self-Efficacy	3.32	0.63	High
Autonomy	2.81	0.74	Moderate
Impact	3.02	0.52	High
Overall, Teacher empowerment	**3.00**	**0.45**	**Moderate**

Decision Making: The mean score for this dimension is 2.59, indicating a moderate level of empowerment among teachers in decision-making.

Professional Growth: Teachers exhibit a high license level in the dimension of Professional Growth, with a mean score of 3.03.

Status: The dimension of Status also reflects a high charge level among teachers, with a mean score of 3.20.

Self-Efficacy: Teachers in the Maldives demonstrate a high level of empowerment in terms of Self-Efficacy, as indicated by a mean score of 3.32.

Autonomy: Autonomy, another charge dimension, shows a moderate level with a mean score of 2.81.

Impact: The dimension of Impact reflects a high level of empowerment, with a mean score of 3.02.

This assessment reveals that Teacher Empowerment in the Maldives exhibits varying levels across dimensions, with an overall moderate rating. These findings provide valuable insights into the educational landscape in the region.

Table 8
The Level of Teaching Effectiveness

Dimensions of teacher effectiveness	Mean	Standard Deviation	Level
Subject Matter Knowledge	3.53	0.47	High
Instruction planning And Strategies	3.50	0.52	High
Assessment	3.54	0.52	High
Learning Environment	3.55	0.61	High
Effective Communication	3.62	0.49	High
Overall, Teacher empowerment	**3.55**	**0.46**	**High**

Assessment of Teaching Effectiveness in the Maldives
The assessment of teaching effectiveness in the Maldives, as presented in Table 8, indicates that teachers in the country are generally highly effective across various dimensions. Here is a summary of the findings:

Subject Matter Knowledge: Teachers in the Maldives exhibit a high level of Teaching Effectiveness in Subject Matter Knowledge, as indicated by a mean score of 3.53.

Instruction Planning and Strategies: The dimension of Instruction Planning and Strategies also reflects a high level of Teaching Effectiveness, with a mean score of 3.50.

Assessment: In the Assessment dimension, teachers demonstrate a high level of Teaching Effectiveness, with a mean score of 3.54.

Learning Environment: Teachers create a conducive Learning Environment, with a mean score of 3.55, indicating a high level of Teaching Effectiveness.

Effective Communication: Teachers are highly effective in terms of Effective Communication, as shown by a mean score of 3.62.

Overall Teaching Effectiveness*: When considering all dimensions collectively, the overall teaching effectiveness in the Maldives is consistently high, with a mean score of 3.55. This suggests that teachers in the Maldives are well-rounded and excel in various aspects of teaching, contributing to an overall high level of teaching effectiveness.*

These findings indicate that the education system in the Maldives benefits from teachers who possess strong subject matter knowledge, effective instructional skills, the ability to create a positive learning environment, and excellent communication skills. This overall high teaching effectiveness is promising for the country's education quality.

Assessment of Measurement Model

In PLS-SEM analysis, the measurement model evaluates validity and reliability. It was essential to establish construct validity, which assesses the applicability of conceptual models (Hair et al., 2019). This phase considered item factor loading, convergent reliability, and construct validity (Hair et al., 2019).

Table 9
Cronbach Alpha and Composite Reliability Value

Variable	Dimension	Cronbach Alpha	CR>0.70
Teacher Empowerment	Decision Making	0.919	0.928
	Professional Growth	0.905	0.928
	Status	0.897	0.924
	Self-Efficacy	0.969	0.975
	Autonomy	0.880	0.927
	Impact	0.907	0.928
Teaching Effectiveness	Subject Matter Knowledge	0.930	0.942
	Instruct Planning and Strategies	0.937	0.949
	Assessment	0.911	0.937
	Learning Environment	0.956	0.966
	Effective Communication	0.870	0.921

Notes: CR; Composite Reliability; AVE: Average Variance Extracted.
Hypothesis Testing (Direct Effect Model)

Convergent Validity

Convergent validity assesses the reliability of constructs by examining factor loading values. In this context, the focus is on the concurrent validity of the model, involving the measurement of indicator loading, Average Variance Extracted (AVE), and Composite Reliability (CR) (Hair et al., 2019).

To evaluate convergent validity, three tests were conducted: outer loading, composite reliability (CR), and Average Variance Extracted (AVE) (Hair et al., 2014). Precisely, the criterion suggested by Hair et al. (2011) was followed, where an item is considered to have good reliability if its factor loading is more significant than 0.7, while items with factor loadings below 0.5 should be removed. Therefore, all indicator loadings that exceeded the recommended value of 0.5, as advised by Hair et al. (2016), were retained.

Additionally, all variables exhibited AVE values ranging from 0.507 to 0.689, exceeding the recommended threshold of 0.50. As presented in Table 9, CR values ranged from 0.89 to 0.967, surpassing the recommended threshold of 0.70, as suggested by Hair Jr et al. (2016). These findings affirm the presence of convergent validity.

This section presents the model results, focusing solely on the direct hypothesis that Teacher Empowerment significantly influences Teaching Effectiveness in the Maldives. The study employed bootstrapping, as recommended by Hair et al. (2014), to assess the significance of this relationship. Bootstrapping enabled the computation of t-values after conducting partial most minor square assessments with various data partitions. This study defined significance as $p < 0.05$, with t-values exceeding 1.96. Table 10 summarises the findings related to the influence of Teacher Empowerment on Teaching Effectiveness:

Table 10
Findings of Influence of Teacher Empowerment on Teaching Effectiveness

Hypotheses	Relationship	Beta value (β)	Standard deviation	*t*-value	*p*-value	Result
H5	TEMP > TE	0.565	0.049	11.635	0.000	**Supported**

Notes: TEMP: Teacher empowerment, TE: Teaching Effectiveness

Coefficient of Determination (R^2)

This section delves into the coefficient of determination (R^2) concept, which measures how much an independent variable can affect dependent variables (Hair et al., 2019). According to Cohen (1988), R^2 values can be categorised as significant (0.27), moderate (0.13), or weak (0.02). These values reveal the portion of variability in the dependent variable's performance that can be explained by an underlying latent variable (Hair et al., 2017; Hair et al., 2013). Essentially, the R^2 value (refer to Table 11) quantifies the degree to which these underlying variables can clarify the variance within the structural model (Hair et al., 2014).

Table 11
Predictive Accuracy (R^2)

Variable	R Square
Teacher Empowerment	0.325
Teaching Effectiveness	0.293

The R^2 values presented in Table 11 specifically pertain to the influence of Teacher Empowerment on Teaching Effectiveness. In this context, Teacher Empowerment can account for roughly 32.5% ($R^2 = 0.325$) of the variance seen in Teaching Effectiveness, signifying a substantial level of impact.

Examining Effect Size (f^2)

Effect size, as quantified by changes in f^2, offers valuable insights into the relative impact of the model (Chin, 1998). Chin (1998) suggests that values such as 0.02, 0.15, and 0.35 are typically employed to describe the f^2 values as indicative of weak, moderate, and substantial effects, respectively. This study analyses the effect size concerning the direct hypothesised relationship between Teacher Empowerment and Teaching Effectiveness. Table 12 presents the effect size for the direct relationship under investigation:

Table 12
Evaluation of Effect Size for Teacher Empowerment and Teaching Effectiveness

Relationship	Effect Size (f^2)	Decision
Reacher Empowerment -> Teaching Effectiveness	0.304	Large

The effect size value for the relationship between Teacher Empowerment and Teaching Effectiveness is 0.304, signifying a significant and substantial effect. This analysis underscores the profound impact of Teacher Empowerment on Teaching Effectiveness in the Maldives.

Assessment of Predictive Relevance (Q²)

Beyond relying solely on R^2 values to evaluate predictive accuracy, exploring alternative methods to assessing a model's predictive power and relevance is essential, particularly when making predictions outside the sample (Hair et al., 2016). In this study, the analysis leverages the blindfolding technique within SmartPLS to calculate Q^2 values for the endogenous variable within the research model, as outlined in Table 13.

Table 13
Predictive Relevance (Q²) Values

Variables	Q²
Teacher Empowerment	0.131
Teaching Effectiveness	0.157

As per Hair et al.'s (2016) guideline, when Q^2 values for the dependent variable exceed zero, it establishes the model's predictive validity for that dependent variable. Q^2 values can be obtained through blindfolding analysis

using SmartPLS software. As recommended by Hair et al. (2014), any Q^2 value higher than 0 is considered to indicate predictive relevance. The values presented in Table 13 demonstrate that both Teacher Empowerment and Teaching Effectiveness have predictive relevance in the model.

DISCUSSIONS AND CONCLUSION
The discussion and conclusion section represents a pivotal phase of this research endeavour. This section critically examines, elucidates, and contextualises the study's findings in relation to existing literature. It also provides a platform for drawing pertinent conclusions and outlining implications for future research. Additionally, this section acknowledges any limitations inherent in this study and offers suggestions for prospective research endeavours. It serves as a culmination of the extensive analysis and provides a comprehensive understanding of the research's significance and impact on the field of study.

Recapitulation of the Study
The Maldives Education Sector Plan 2019-2023 (2019) underscores the paramount importance of bolstering the knowledge economy, fostering socioeconomic prosperity, and addressing the evolving demands of the 21st-century economy. This comprehensive plan emphasises enhancing education at all tiers, encompassing primary and secondary education, recognising their pivotal roles in nurturing a holistic education system contributing to the nation's overall progress. Improving education at all levels is imperative in equipping the Maldives' citizens with the requisite skills and knowledge to participate actively and catalyse economic growth. A robust educational framework at these foundational levels lays the groundwork for higher education and nurtures the essential building blocks for future careers.

The significance of augmenting education at all levels cannot be overstated. An inclusive educational system equips individuals with the competencies to engage in and contribute to the nation's economy, potentially alleviating poverty, stimulating economic prosperity, and empowering citizens with the abilities and knowledge needed to participate actively in the nation's socioeconomic landscape. Hence, the Maldives Education Sector Plan 2019-2023 (2019) aspires to elevate education at every echelon, including primary and secondary levels, to advance the nation's holistic development and propel it toward a more prosperous future. Through this concerted effort, the Maldives endeavours to establish itself as a regional and global leader in education and human capital development.

Research Questions
This study delves into three pivotal research questions that encapsulate the essence of its inquiry:

1. How does teacher empowerment impact teaching effectiveness in the Maldives?
2. To what extent does teaching effectiveness manifest in the Maldives?
3. Is there a significant influence of Teacher Empowerment on Teaching Effectiveness in the Maldives?

These research questions serve as the core underpinning of this study's investigation. They are designed to provide comprehensive insights into the intricate interplay between teacher empowerment and teaching effectiveness within the specific context of the Maldives' educational landscape.

Key Findings and Implications
In the pursuit of unravelling the intricate dynamics between teacher empowerment and teaching effectiveness, this study has unearthed significant findings. It is imperative to underscore that the primary focus of this study's discussion and conclusion will revolve around these critical findings, primarily addressing the third research question concerning the influence of Teacher Empowerment on Teaching Effectiveness in the Maldives. While integral to the research process, the other research questions will be briefly touched upon, with the central narrative centred on the pivotal relationship between teacher empowerment and teaching effectiveness. The specifics of these findings are elucidated in the subsequent sections of this chapter.

Discussion of the Findings
Level of Teaching Effectiveness in the Maldives
The outcomes of the descriptive study reveal a high level of consensus among the participants concerning the presence of crucial elements contributing to teaching effectiveness in the Maldives. Notably, the mean score for Effective Communication stands slightly higher at 3.62, signifying a stronger concurrence among participants regarding the prominence of effective communication within their educational community. This observation aligns with the well-established notion that effective communication is an indispensable prerequisite for teacher effectiveness (Nolan & Molla, 2017; Hattie, 2008).

Effective teachers are recognised for their adeptness in communicating with students, modelling standardised language, actively listening and constructively responding, establishing and maintaining multiple communication channels between school and home, and adhering to school policies concerning student information dissemination. They also explain concepts coherently, tailor lessons to suit students' age and aptitude, and structure instruction around goals reflective of high expectations (Stronge, 2018).

The mean scores for Learning Environment, Assessment, Subject Matter Knowledge, and Instructional Planning and Strategies hover around 3.55 to 3.50, underscoring the participants' belief in the substantial presence of these elements within their educational milieu. Teachers express confidence in their ability to exhibit accurate subject matter knowledge, interconnect it with past and future learning experiences, convey content comprehensibly, adapt teaching to cater to students' intellectual and emotional requirements and align instruction with goals reflecting elevated expectations. Furthermore, the findings affirm that teachers readily adapt their pedagogical approaches to render topics more pertinent, employing suitable materials, technology, and resources.

These outcomes mirror the findings of Stronge (2018), who identified that effective teachers adeptly address relevant curriculum standards, infusing essential elements and higher-order thinking skills into their instruction. Effective teachers are known to possess accurate knowledge of the subject matter, bridge prior knowledge with current learning experiences, exhibit relevant competencies within their subject areas and demonstrate a nuanced understanding of the developmental needs of specific age groups.

Another pivotal facet in gauging teaching effectiveness is deploying diverse instructional strategies and techniques to optimise student learning. Stehle & Peters-Burton (2019) underscore that effective teachers prioritise learning activities throughout the teaching and learning process, maximise instructional time, assume accountability for student learning outcomes, and establish equitable, empathetic, and trustworthy relationships.

The findings indicate that the participants perceive a high prevalence of critical elements contributing to teaching effectiveness within their professional learning community. These insights hold substantial potential for guiding future initiatives to enhance teaching effectiveness, fortify support structures, and enrich the available resources accessible to educators in the Maldives.

Level of Teacher Empowerment in the Maldives
The findings from the descriptive study shed light on the level of Teacher Empowerment within Maldivian schools, revealing a moderate standing. A nuanced examination of the dimensions within this construct unveils that Professional Growth, Status, and Self-Efficacy exhibit high levels, while Decision-Making and Autonomy are positioned at moderate levels.

This discernment suggests that teachers perceive a need for increased opportunities to partake in decision-making processes, primarily concerning matters related to teaching and learning. In this regard, educators must be actively engaged in decision-making across the entire teaching and learning continuum spectrum, encompassing aspects such as instructional methodologies, resource allocation, scheduling, curriculum planning, personnel selection, and goal establishment (Fischer et al., 2021). Furthermore, the findings underscore the importance of elevating the dimension of Autonomy within school settings, as it catalyses fostering development and rejuvenation (Whitaker & Moses, 1990). Autonomy fuels enthusiasm for education and nurtures communication and self-esteem (White, 1992). Consequently, educational leaders should cultivate environments promoting autonomy (Short, 1994).

A notable observation is the marginally higher mean score for Self-Efficacy, registering at 3.32. This elevated score signifies a heightened consensus among the participants regarding their perceived self-efficacy within the educational community. Berry et al. (2010a) underscore the pivotal role of self-efficacy in individual and collective teacher leadership, which has been correlated with effective school development and transformative change initiatives. These findings hold the potential to guide future initiatives aimed at empowering teachers, thereby augmenting teaching effectiveness within the Maldives.

In essence, the moderate level of Teacher Empowerment unveiled through this research underscores the imperative for fostering increased opportunities for decision-making and enhancing autonomy within schools. Simultaneously, the elevated self-efficacy among teachers indicates a favourable foundation upon which to construct initiatives that empower educators and enhance teaching effectiveness within the Maldivian educational landscape.

Influence of Teacher Empowerment on Teaching Effectiveness in the Maldives
The findings of this study substantiate the significantly positive influence of Teacher Empowerment on Teaching Effectiveness within the Maldivian educational context. With a beta value of 0.565, the correlation between these two variables is moderate. Furthermore, the statistical significance of this influence is underscored by a T-value of 11.635, corresponding to an exceptionally low p-value of 0.000. These statistical indicators unequivocally affirm that the likelihood of enhanced teaching effectiveness concurrently escalates as teacher empowerment ascends.

This empirical substantiation aligns harmoniously with previous research on teacher empowerment and its profound impact on teacher effectiveness. For instance, Singh and Manat (2010) posit that teacher empowerment is intricately linked to heightened motivation, augmented job satisfaction, and enhanced effectiveness among educators. Similarly, the seminal work of Hargreaves and Fullan (2012) elucidates that teacher empowerment constitutes a pivotal linchpin in the cultivation of a thriving school culture, which, in turn, catalyses improvements in teacher effectiveness. Moreover, teacher empowerment is inexorably tied to augmented teacher autonomy—a prerogative that empowers educators to shape their teaching practices and actively engage in decision-making processes within the school (Goddard et al., 2000). This heightened autonomy is synonymous with amplified teacher engagement, accentuating overall effectiveness.

Furthermore, teacher empowerment begets a sense of ownership and accountability among educators—a phenomenon that invariably elevates the quality of their teaching (Goddard et al., 2000). This heightened sense of ownership translates into a heightened commitment towards their profession and the students they instruct, culminating in superior outcomes for educators and learners.

It is imperative to contextualise these findings within the educational landscape of the Maldives. They underscore the imperative of empowering teachers and equipping them with the requisite resources and support to excel in their roles. Therefore, governmental bodies, educational institutions, and stakeholders within the Maldives must deliberate on strategies to empower teachers by furnishing them with the tools and opportunities requisite for honing their teaching practices and, by extension, benefiting the students they serve.

While this study yields promising results, it must be appraised against the backdrop of the research design and its inherent limitations. It is incumbent upon future research endeavours to delve deeper into comprehending the intricate dynamics of the relationship between teacher empowerment and teacher effectiveness within the Maldivian context. Such investigations can illuminate optimal strategies for ameliorating teaching practices and enhancing student outcomes, thus nurturing a more robust educational landscape in the Maldives.

Research Implications
The implications of this study pertain to both theory and practice, with significant implications for policymakers, educational leaders, and the enhancement of training and school management practices.

Theoretical Implications
Teacher Empowerment as a Mediator: This study highlights the critical role of teacher empowerment as a mediating factor in the relationship between teacher effectiveness and its various dimensions, such as effective communication, learning environment, assessment, subject matter knowledge, and instructional planning and strategies.

Empowerment-Teaching Effectiveness Nexus: The findings underscore teacher empowerment's significance in positively influencing teaching effectiveness. This contributes to the theoretical understanding of how teacher empowerment can catalyse improved teaching outcomes.

Practical Implications
Professional Development Emphasis: The study emphasises the need for professional development initiatives that empower teachers by enhancing their autonomy, decision-making authority, and self-efficacy. Schools and educational institutions should invest in empowering teachers through targeted training programs.

Enhancing Teaching Practices: Teacher empowerment is identified as a pathway to enhance teaching practices. Therefore, schools should prioritise creating an environment that fosters teacher empowerment. This can be achieved by giving teachers more control over their work and decision-making processes.

Support for Teachers: Policymakers and educational leaders can use these findings to develop policies and practices that provide continuous support and resources to teachers. Empowered teachers are more likely to be engaged and motivated, leading to better teaching practices and student outcomes.

In conclusion, this study highlights the pivotal role of teacher empowerment in influencing teaching effectiveness in the Maldives. The implications discussed herein guide stakeholders in the education sector to empower teachers and enhance the overall quality of education in the country.

Limitations

This study, focusing exclusively on the influence of teacher empowerment on teaching effectiveness in the Maldives, exhibits several limitations that warrant discussion.

Self-Reported Data: A primary limitation arises from the self-reported nature of the data collected in this study. Such data are susceptible to social desirability and response bias, potentially affecting the accuracy and reliability of the findings.

Limited Stakeholder Perspective: The study predominantly relies on teachers' perceptions, presenting a limitation in that it does not incorporate the viewpoints of other stakeholders involved in developing professional learning communities, such as students or parents. A broader perspective could offer a more comprehensive understanding of the dynamics at play.

Exclusion of Additional Variables: This research examines the relationship between teacher empowerment and teaching effectiveness. It does not encompass other significant variables that may influence these relationships, including school culture, leadership, and teacher characteristics. This lack of control for extraneous variables could introduce potential confounding factors that impact the study's outcomes.

Cross-Sectional Design: While valuable for capturing a snapshot of the relationships between variables, the study's cross-sectional design inherently constrains the establishment of causality. Future longitudinal investigations may offer more robust insights into the cause-and-effect dynamics between professional learning communities, teacher empowerment, and teaching effectiveness.

Generalizability: Lastly, the study's exploration is confined to teachers' experiences within the specific context of the Maldives. Therefore, caution should be exercised when generalising these findings to other countries with distinct cultural, economic, and educational settings. Extending this research to diverse contexts is necessary to validate the study's outcomes comprehensively.

Given these limitations, future research should address these constraints, further enriching our understanding of the interplay between teacher empowerment and teaching effectiveness in varying educational settings.

Recommendations for Future Research

Future research should build upon the insights gained from this study, with a continued focus on exploring the relationship between teacher empowerment and teaching effectiveness in the Maldivian educational context. To further enhance the depth and breadth of knowledge in this area, consider the following recommendations:

Incorporate Private Schools: While this study concentrated on government schools, future research should extend its scope to include private schools in the Maldives. Incorporating both government and private educational institutions can offer a more comprehensive understanding of the dynamics of teacher empowerment and its impact on teaching effectiveness across diverse school settings.

Broader Geographic Representation: Expanding the geographic representation of study samples to encompass all six provinces within the Maldives is recommended. This broader regional coverage may yield a more nuanced perspective and enable findings to be more readily generalised to teachers across the Maldives.

Diverse Stakeholder Perspectives: Future research should not be limited solely to teachers' perceptions but should also capture the viewpoints of other key stakeholders, including students, parents, and school leadership. This multifaceted approach can provide a holistic understanding of the dynamics at play within the educational ecosystem.

Consideration of Additional Variables: To enrich our comprehension of the relationships under investigation, future studies should consider other influential variables beyond the core four—professional learning communities, teaching effectiveness, teacher empowerment, and teacher collaboration. Variables such as school culture, the impact of instructional leadership by principals, and various teacher characteristics merit exploration to offer a more comprehensive perspective.

Methodological Triangulation: Employing methodological triangulation, which includes qualitative research methods such as participant observations and in-depth interviews, can deepen our understanding of the complex dynamics at play. These qualitative approaches can provide a richer, more holistic view of teacher empowerment and its implications.

By addressing these recommendations in future research, we can contribute to a more nuanced and comprehensive understanding of the role of teacher empowerment in shaping teaching effectiveness in the Maldives and potentially inform strategies for enhancing the quality of education in the region.

Conclusion

In conclusion, this study explored the relationship between teacher empowerment and teaching effectiveness in Maldivian education. The findings revealed a strong and positive correlation between teacher empowerment and teaching effectiveness. These results have significant implications for policymakers, school administrators, teachers, and educational researchers in the Maldives and similar settings. They provide a foundation for informed decision-making and the development of targeted teacher empowerment programs to enhance teaching effectiveness in Maldivian schools.

REFERENCES

Akram, M., & Zafar, F. (2019). A new approach to compute measures of connectivity in rough fuzzy network models. *Journal of Intelligent & Fuzzy Systems, 36*(1), 449-465.

Al Abri, A., Al Seyabi, F., Al Humaidi, S., & Hasan, A. H. (2017). Grammar learning strategies in Omani EFL classes: Type and relation to student proficiency. *Journal of Studies in Education, 7*(2), 151-166.

Al-Maroof, R. S., Alshurideh, M. T., Salloum, S. A., AlHamad, A. Q. M., & Gaber, T. (2021, March). Acceptance of Google Meet during the spread of Coronavirus by Arab university students. *Informatics, 8*(2), 24. MDPI.

Anastasi, A., & Urbina, S. (1997). *Psychological Testing* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Armstrong, M. (2009). *Armstrong's Handbook of Human Resource Management Practice* (11th edition).

Asia Society. (2012). Teaching and leadership for the twenty-first century. The 2012 International Summit on the Teaching Profession. Retrieved from http://asiasociety.org/files/2012teachingsummit.pdf.

Atrizka, D., Lubis, H., Simanjuntak, C. W., & Pratama, I. (2020). Ensuring Better Affective Commitment and Organizational Citizenship Behavior through Talent Management and Psychological Contract Fulfillment: An Empirical Study of Indonesia Pharmaceutical Sector. *Systematic Reviews in Pharmacy, 11*(1).

Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education, 27*(1), 10-20.

Bach, R. G., Cannon, C. P., Giugliano, R. P., White, J. A., Lokhnygina, Y., Bohula, E. A., ... & Blazing, M. A. (2019). Effect of simvastatin-ezetimibe compared with simvastatin monotherapy after acute coronary syndrome among patients 75 years or older: a secondary analysis of a randomized clinical trial. *JAMA Cardiology, 4*(9), 846-854.

Bae, C. L., Mills, D. C., Zhang, F., Sealy, M., Cabrera, L., & Sea, M. (2021). A systematic review of science discourse in K–12 urban classrooms in the United States: Accounting for individual, collective, and contextual factors. *Review of Educational Research, 91*(6), 831-877.

Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in Psychology, 10*, 1645.

Bennett, B. A. (2022). A whole new learning space: Exploring classroom variability for teaching mathematics via active learning. *International Journal of Mathematical Education in Science and Technology, 53*(1), 108-130.

Berry, B., Daughtrey, A., & Wieder, A. (2010). *Teacher Leadership: Leading the Way to Effective Teaching and Learning*. Center for Teaching Quality.

Bisseret, N. (2012). *Education, Class Language and Ideology (RLE Edu L)*. Routledge.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7-74.

Brown, G. H. (1947). A comparison of sampling methods. *Journal of Marketing, 6*, 331-337.

Brown, T. A. (2006). *Confirmatory Factor Analysis for Applied Research*. The Guilford Press.

Bryman, A. (2012). Sampling in qualitative research. *Social Research Methods, 4*, 415-429.

Butera, F., Batruch, A., Autin, F., Mugny, G., Quiamzade, A., & Pulfrey, C. (2021). Teaching as social influence: Empowering teachers to become agents of social change. *Social Issues and Policy Review, 15*(1), 323-355.

Callina, K. S., Ryan, D., Murray, E. D., Colby, A., Damon, W., Matthews, M., & Lerner, R. M. (2017). Developing leaders of character at the United States Military Academy: A relational developmental systems analysis. *Journal of College and Character*, *18*(1), 9-27.

Chan, M. (2020). A multilevel SEM study of classroom talk on cooperative learning and academic achievement: Does cooperative scaffolding matter? *International Journal of Educational Research, 101*, 101564.

Chen, J., Han, L., & Qu, G. (2020). *Citizen innovation: Exploring the responsibility*

Chen, X. (2022). The effects of individual-and class-level achievement on attitudes towards mathematics: An analysis of Hong Kong students using TIMSS 2019. *Studies in Educational Evaluation*, *72*, 101113.

Christensen, T. K., & Fox, A. D. (2014). Changes in age and sex ratios amongst samples of hunter-shot wings from common duck species in Denmark 1982–2010. *European Journal of Wildlife Research, 60*, 303-312.

Chua, Y. P. (2014). *Kaedah dan Statistik Penyelidikan: Kaedah Penyelidikan* (3rd Edition). Shah Alam: McGraw-Hill Companies.

Chua, Y. P. (2017). *Mastering Research Methods* (2nd Ed.). McGraw-Hill Education. Malaysia, Sdn. Bhd.

Creswell, J. W. (2005). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Upper Saddle River, New Jersey.

Danielson, C. (2007). *Enhancing Professional Practice: A Framework for Teaching*. ASCD.

Davidson, B. M., & Dell, G. L. (2003). *A School Restructuring Model: A Tool Kit for Building Teacher Leadership.*

De Vries, J. A., Dimosthenous, A., Schildkamp, K., & Visscher, A. J. (2022). The impact on student achievement of an assessment for learning teacher professional development program. *Studies in Educational Evaluation, 74*, 101184.

Denscombe, M. (2010). *The Good Research Guide: For Small-Scale Social Research*. McGraw Hill.

Di Biase, R. (2019). Enabling pedagogic reform in the Maldives: Implications for translating policy into teacher practice. *Asia Pacific Journal of Education, 39*(3), 372-390.

Di Biase, R., & Maniku, A. A. (2021). Transforming education in the Maldives: The challenges of a small island developing state. In *Handbook of Education Systems in South Asia* (pp. 545-573). Singapore: Springer Singapore.

Dickinson, V. L., Abd-El-Khalick, F. S., & Lederman, N. G. (2000). *Changing Elementary Teachers' Views of the NOS: Effective Strategies for Science Methods Courses*.

Elmore, J. G., Jackson, S. L., Abraham, L., Miglioretti, D. L., Carney, P. A., Geller, B. M., ... & Buist, D. S. (2009). Variability in interpretive performance at screening mammography and radiologists' characteristics associated with accuracy. *Radiology, 253*(3), 641-651.

Evans, M. (2006). Educating for citizenship: What teachers say and what teachers do. *Canadian Journal of Education/Revue canadienne de l'éducation*, 410-435.

Fischer, T., Tian, A. W., Lee, A., & Hughes, D. J. (2021). Abusive supervision: A systematic review and fundamental rethink. *The Leadership Quarterly, 32*(6), 101540.

Gay, L. R., Mills, G. E., & Airasian, P. W. (2012). *Educational Research: Competencies for Analysis and Applications* (10th ed.). Pearson Education.

Gochhayat, J., Giri, V. N., & Suar, D. (2017). Influence of organisational culture on organisational effectiveness: The mediating role of organisational communication. *Global Business Review*, 18(3), 691-702.

Gore, J., Lloyd, A., Smith, M., Bowe, J., Ellis, H., & Lubans, D. (2017). Effects of professional development on the quality of teaching: Results from a randomized controlled trial of Quality Teaching Rounds. *Teaching and Teacher Education*, 68, 99-113.

Griffiths, M. D., Demetrovics, Z., & Atroszko, P. A. (2018). Ten myths about work addiction. *Journal of Behavioral Addictions, 7*(4), 845-857.

Grissom, J. A., & Youngs, P. (Eds.). (2016). *Improving teacher evaluation systems: Making the most of multiple measures*. Teachers College Press.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modelling (PLS-SEM) using R: A workbook* (p. 197). Springer Nature.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modelling (PLS-SEM): An emerging tool in business research. *European Business Review, 26*(2), 106-121.

Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: a review of past practices and recommendations for future applications. *Long Range Planning*, *45*(5-6), 320-340.

Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review, 30*(3), 466-479.

Hirsch, E., & Emerick, S. (2006). Teaching and Learning Conditions Are Critical to the Success of Students and the Retention of Teachers. Final Report on the 2006 Teaching and Learning Conditions Survey to the Clark County School District and Clark County Education Association. *Center for Teaching Quality*.

Hoe, J., & Hoare, Z. (2012). Understanding quantitative research: Part 1. *Nursing Standard (through 2013)*, 27(15-17), 52. https://www.unicef.org/maldives/what-we-do/education.

Islamic Development Bank (2022). Republic of Maldives.

Karibe, H., Kawakami, T., Suzuki, A., Warita, S., Ogata, K., Aoyagi, K., ... & Dahllöf, G. (2009). Career choice and attitudes towards dental education amongst dental students in Japan and Sweden. *European Journal of Dental Education*, 13(2), 80-86.

Khan, B., & Begum, S. (2012). Portfolio: A professional development and learning tool for teachers. *International Journal of Social Science and Education*, *2*(2), 363.

Klecker, B. J., & Loadman, W. E. (1998). Defining and measuring the dimensions of teacher empowerment in restructuring public schools. *Education*, *118*(3), 358-371.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, *11*(4), 1-10.

Kyriakides, L., Antoniou, P., & Dimosthenous, A. (2021). Does the duration of school interventions matter? The effectiveness and sustainability of using the dynamic approach to promote quality and equity. *School Effectiveness and School Improvement*, *32*(4), 607-630.

Lambert, S. R. (2020). Do MOOCs contribute to student equity and social inclusion? A systematic review 2014–18. Computers & Education, 145, 103693.

Latifi, F., & Latifi, E. (2022). Did the Characteristics of Kosovar Teachers Influence the Results of Students in TIMSS 2019? Findings from the Performance of Kosovar Students in TIMSS 2019. *Social Sciences*, *11*(8), 344.

Lee, M., & Louis, K. S. (2019). Mapping a strong school culture and linking it to sustainable school improvement. *Teaching and Teacher Education*, 81, 84-96.

Leedy, P. D., & Ormrod, J. E. (2015). *Practical research*. Pearson.

Leithwood, K., & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational Administration Quarterly*, *44*(4), 496-528.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). How Leadership Influences Student Learning. Review of Research. *Wallace Foundation, The*.

Lombardi, S., Cavaliere, V., Giustiniano, L., & Cipollini, F. (2020). What money cannot buy: The detrimental effect of rewards on knowledge sharing. *European Management Review*, *17*(1), 153-170.

Maldives, U. N. I. C. E. F. (2018). *Children in Maldives 2018: Analysis of children of the Maldives from census 2014.*

Marcolini, J. P. (2022). *The Impact of Stem Professional Development on Teacher Self-Efficacy: A Phenomenological Mixed Methods Study* (Doctoral dissertation, Florida Gulf Coast University).

Marican, S. (2005). Membentuk suasana kerja positif. Utusan Publications.

Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction*. Ascd.

Marzano, R. J. (2012). The Two Purposes of. *Educational leadership*.

MoE (2019). Maldives education sector analysis. https://support.moe.gov.mv/wp-content/uploads/2020/05/ EDUCATION-SECTOR-ANALYSIS_ESA.pdf.

MoE and MoHE [Ministry of Higher Education] (2019). Maldives education sector plan 2019–2023. https:// www.globalpartnership.org/sites/default/fles/2019-05-maldives-education-sector-plan-2019-2023.pdf.

Muralidharan, K., & Singh, A. (2020). *Improving public sector management at scale? Experimental evidence on school governance in India* (No. w28129). National Bureau of Economic Research.

Mwakabenga, R. J. (2018). *Developing teacher-led professional learning in a Tanzanian secondary school: a thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Education at Massey University, Manawatū, New Zealand* (Doctoral dissertation, Massey University).

Nasir, M., Samy, N. K., & Bhaumik, A. (2022). Maldivian Perspectives: Principals' Leadership, Teachers' Self-efficacy and Obligations to Students. *International Journal of Advanced Research in Education and Society*.

Nazeer, A. (2017). Education Policy in the Maldives: No child left behind: Changing lives & working for results.

Ngussa, B. M., & Gabriel, L. (2017). Participation in decision making and teachers' commitment: a comparative study between public and private secondary schools in Arusha Municipality, Tanzania. *American Journal of Educational Research*, *5*(7), 801-807.

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical Diagnosis of Mental Disorders: A Handbook*, 97-146.

Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed). McGraw-Hill.

Okumbe, J. A. (2007). *Educational Management, Theory and Practice*. University of Nairobi Press, Kenya.

Olatunde-Aiyedun, TG, Olamoyegun, SO & Ogunode, NJ (2022). Assessment of Science Resources in Higher Education. *Central Asian Journal of Theoretical & Applied Sciences*, 3(7), 186-197.

Organisation for Economic Co-operation and Development (OECD). (2018). *The future of education and skills: Education 2030*. OECD Education Working Papers.

Owan, V. J., Emanghe, E. E., Denwigwe, C. P., Etudor-Eyo, E., Usoro, A. A., Ebuara, V. O., ... & Bassey, B. A. (2022). Curriculum Management and Graduate Programmes' Viability: The Mediation of Institutional Effectiveness Using PLS-SEM Approach. *Journal of Curriculum and Teaching*, 11(5), 114-127.

Pearson, L. C., & Moomaw, W. (2005). The relationship between teacher autonomy and stress, work satisfaction, empowerment, and professionalism. *Educational Research Quarterly*, 29(1), 38-54.

Pianta, R. C., Nimetz, S. L., & Bennett, E. (1997). Mother-child relationships, teacher-child relationships, and school outcomes in preschool and kindergarten. *Early Childhood Research Quarterly*, 12(3), 263-280.

Polat, M. (2022). Validity and Reliability of The Turkish-Adapted School Participant Empowerment Scale (SPES) for Teachers with the PLS-SEM Approach. *Journal of STEM Teacher Institutes*, 2(1), 10-23.

Price, K. M., & Nelson, K. L. (2018). *Planning effective instruction: Diversity responsive methods and management. Cengage Learning*.

Puskulluoglu, E. I., & Altinkurt, Y. (2017). *Development of Teachers' Structural Empowerment Scale (TSES): A Validity and Reliability Study*. Online Submission.

Redding, C. (2019). A teacher like me: A Review of the Effect of student–teacher Racial/ethnic matching on teacher perceptions of students and student academic and behavioural outcomes. *Review of Educational Research*, 89(4), 499-535.

Rinehart, J. S., & Short, P. M. (1991). Viewing reading recovery as a restructuring phenomenon. *Journal of School Leadership,* 1(4), 379-399.

Rinehart, J. S., & Short, P. M. (1991). Viewing reading recovery as a restructuring phenomenon. *Journal of School Leadership,* 1(4), 379-399.

Rinehart, J. S., & Short, P. M. (1994). Job satisfaction and empowerment among teacher leaders, reading recovery teachers and regular classroom teachers. *Education*, 114(4), 570.

Rinehart, J. S., Short, P. M., Short, R. J., & Eckley, M. (1998). Teacher empowerment and principal leadership: Understanding the influence process. *Educational Administration Quarterly*, 34(1_suppl), 630-649.

Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44(5), 635-674.

Ross, J. A., & Gray, P. (2006). School leadership and student achievement: The mediating effects of teacher beliefs. *Canadian Journal of Education*/Revue canadienne de l'éducation, 798-822.

Sandelowski, M. (1999). Time and qualitative research. *Research in Nursing & Health*, 22(1), 79-87.

Sanders, W. (1999). Teachers! Teachers! Teachers! Blueprint Magazine. Online edition. Retrieved March, 28, 2001.

Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in* Human Behavior, 118, 106675.

Sekaran, U. (2003). Determining sample size. Sekaran. Uma (4th Eds.), *Research methods for business: A skill building approach*, 263-298.

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. John Wiley & Sons.

Shafeeu, I. (2019). Relationship between principals' instructional leadership and school effectiveness. Does it make a difference? Evidence from the Maldives (Doctoral dissertation, Durham University).

Short, P. M. (1994). Defining teacher empowerment. Education, 114(4), 488-493.

Short, P. M., & Johnson, P. E. (1994). *Exploring the Links among Teacher Empowerment, Leader Power, and Conflict.*

Short, P. M., & Rinehart, J. S. (1992). School Participant Empowerment Scale: Assessment of level of empowerment within the school environment. *Educational and Psychological Measurement*, 52(4), 951-960.

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-23.

Sidiq, Y., Ishartono, N., Desstya, A., Prayitno, H. J., Anif, S., & Hidayat, M. L. (2021). Improving elementary school students' critical thinking skill in science through hots-based science questions: A quasi-experimental study. *Jurnal Pendidikan IPA Indonesia*, 10(3), 378-386.

Simon, G. M. (2006). The heart of the matter: A proposal for placing the self of the therapist at the center of family therapy research and training. *Family Process*, 45(3), 331-344.

Sims, S., & Fletcher-Wood, H. (2021). Identifying the characteristics of effective teacher professional development: a critical review. *School Effectiveness and School Improvement*, *32*(1), 47-63.

Sodiq, A., & Di Biase, R. (2022). "We cannot do away with exams: Parents believe in them, so does the wider community". Reimagining the examination system in the Maldives. *Prospects*, 51(4), 701-719.

Stehle, S. M., & Peters-Burton, E. E. (2019). Developing student 21st Century skills in selected exemplary inclusive STEM high schools. *International Journal of STEM Education*, 6(1), 1-15.

Stronge, J. H. (2010). *Teacher effectiveness = student achievement: What the research says*. Larchmont, NY: Eye on Education.

Stronge, J. H. (2018). *Qualities of effective teachers*. Ascd.

Stronge, J. H., Xu, X., Leeper, L., & Tonneson, V. (2013). *Principal evaluation: Standards, rubrics, and tools for effective performance*. ASCD.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 6, pp. 497-516). Boston, MA: Pearson.

Tennant, M. (2019). *Psychology and adult learning: The role of theory in informing practice*.

Thomas, S. (2017). Teacher empowerment: A focused ethnographic study in Brunei Darussalam. *The Qualitative Report*, 22(1), 47-72.

Unicef (2021). *Maldives Case Study Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia*.

Van Leeuwen, A., & Janssen, J. (2019). A systematic review of teacher guidance during collaborative learning in primary and secondary education. *Educational Research Review*, 27, 71-89.

Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, 28(2), 315-352.

Wang, T. (2015). Contrived collegiality versus genuine collegiality: Demystifying professional learning communities in Chinese schools. Compare: *A Journal of Comparative and International Education,* 45(6), 908-930.

Wang, X., & Wang, T. (2022). The mutability of pedagogical practice and space use: a case study of collaborative learning and classroom space in a Chinese primary school. Compare: *A Journal of Comparative and International Education*, 52(5), 729-747.

Washburn, E. K., & Olbrys, S. (2018). Using student-centered teaching: Inspiring and empowering teachers and learners. From head to heart: High-quality teaching practices in the spotlight, 21.

Wenglinsky, H. (2000). *How Teaching Matters: Bringing the Classroom Back into Discussions of Teacher Quality.*

Whitaker, K. S., & Moses, M. C. (1990). Teacher empowerment: A key to restructuring. *The Clearing House*, 64(2), 127-130.

White, P. A. (1992). Teacher empowerment under "ideal" school-site autonomy. *Educational Evaluation and Policy Analysis*, 14(1), 69-82.

World Bank. (2012). Enhancing the quality of education in the Maldives: Challenges and prospects. Retrieved from: https://learningportal.iiep.unesco.org/en/library/enhancing-the-quality-of-education-in-the-maldives-challenges-and-prospects.

Zepeda, S. J. (2012). *Professional development: What works. Eye on education*.

Appendix

Questionnaire to Teaching Effectiveness

Self-assessment Instrument for Teacher Evaluation- II

The overall reliability of the questionnaire was found high (α=.94).

[Response Scale: Never (1) Sometimes (2) Often (3) Always (4)]

I. Subject Matter Knowledge

I demonstrate accurate knowledge of my subject matter	1 2 3
I link content with past and future learning experiences	1 2 3
I demonstrate a variety of skills of my subject area(s)	1 2 3
I communicate content in ways that student can understand	1 2 3
I use school and community resources to help students	1 2 3
I teach according to the intellectual, emotional needs of the students	1 2 3
I effectively address appropriate curriculum needs of the students	1 2 3
I base instruction on goals that reflect high expectations	1 2 3

II. Instructional Planning and Strategies

I use strategies to enhance students' understanding	1 2 3
I change teaching methodology to make topics relevant	1 2 3
I understand individual differences of students and teach accordingly	1 2 3
I use appropriate material, technology and resources	1 2 3
I engage, motivate, and maintain students' attention	1 2 3
I teach the required curriculum according to time-table	1 2 3
I use student learning data to guide planning	1 2 3

III. Assessment

I conduct class tests to mutual trust and respect in classroom	1 2 3
I evaluate students' performances and provide feedback	1 2 3
I maintain students' result and use future improvement	1 2 3
I revise content to enhance students' achievement	1 2 3
I keep official record of students' learning progress	1 2 3

IV. Learning Environment

I create a climate of mutual trust and respect in classroom	1 2 3
I maintain a classroom setting that minimizes disruption	1 2 3
I create friendly and supportive classroom environment	1 2 3
I ensure students' participation in the learning process	1 2 3
I encourage students to interact respectfully	1 2 3

V. Effective Communication

I use correct vocabulary and grammar & writing	1 2 3
I explain lessons according to the age and ability of students	1 2 3
I respond to students' questions in appropriate language	1 2 3

Appendix C

School Participant Empowerment Scale

School Participant Empowerment Scale

(Copyright 1992 Paula M. Short and James S. Rinehart)

Please rate the following statement in terms of how well they describe how you feel. Rate each statement on the following scale:

[Response Scale: Strongly Disagree (1) Disagree (2) Agree (3) Strongly Agree (4)]

Decision making	
I am given the responsibility to monitor programs.	1 2 3 4
I make decisions about the implementation of new programs in the school.	1 2 3 4
I make decisions about the selection of other teachers for my school.	1 2 3 4
I am involved in school budget decisions.	1 2 3 4
I am given the opportunity to teach other teachers.	1 2 3 4
I can determine my own schedule.	1 2 3 4
Principals, other teachers, and school personnel solicit my advice.	1 2 3 4
I have the opportunity to teach other teachers about innovative ideas.	1 2 3 4
Professional Growth	
I function in a professional environment.	1 2 3 4
I am treated as a professional.	1 2 3 4
I have the opportunity for professional growth.	1 2 3 4
I work at school where kids come first.	1 2 3 4
I am given the opportunity to continue learning.	1 2 3 4
I have the opportunity to collaborate with other teachers in my school.	1 2 3 4
Status	
I believe that I earned respect.	1 2 3 4
I believe that I am very effective.	1 2 3 4
I have the respect of my colleagues.	1 2 3 4
I have the support of my colleagues.	1 2 3 4
I believe that I am good at what I do.	1 2 3 4
Self-Efficacy	
I believe that I am helping kids become independent learners	1 2 3 4
I believe that I am empowering students.	1 2 3 4
I feel that I am involved in an important program for children.	1 2 3 4
I see students learn.	1 2 3 4
I believe that I have the opportunity to grow by working daily with students.	1 2 3 4
I perceive that I am making a difference	1 2 3 4
Autonomy	
I have control over daily schedules.	1 2 3 4
I am able to teach as I choose.	1 2 3 4
I have the freedom to make decisions on what is taught.	1 2 3 4
Impact	
I believe that I have the ability to get things done.	1 2 3 4
I participate in staff development.	1 2 3 4
I believe that I am having an impact	1 2 3 4
I am a decision maker.	1 2 3 4
I perceive that I have the opportunity to influence others.	1 2 3 4
I perceive that I have an impact on other teachers and students.	1 2 3 4