

THE INFLUENCE OF TEACHER COLLABORATION ON THE TEACHING EFFECTIVENESS IN THE MALDIVES

Mohamed Nasir¹
Al-Amin Mydin²

¹Universiti Sains Malaysia (USM), Pulau Pinang, Malaysia, (E-mail: mohamed.nasir@student.usm.my)

²Universiti Sains Malaysia (USM), Pulau Pinang, Malaysia, (Email: alamin@usm.my)

Article history

Received date : 22-7-2023

Revised date : 23-7-2023

Accepted date : 5-9-2023

Published date : 19-9-2023

To cite this document:

Mohamed Nasir & Al-Amin Mydin (2023). The influence of teacher collaboration on the teaching effectiveness in the Maldives. *Journal of Islamic, Social, Economics and Development (JISED)*, 8 (56), 86 - 100.

Abstract: *Teacher collaboration has emerged as a crucial factor influencing teaching effectiveness in education. This study aims to comprehensively level teacher collaboration and identify the influence of teacher collaboration on teaching effectiveness in the Maldives. Using a cross-sectional research design, data were collected from 390 teachers working in schools across the Maldives. The collected data were analysed using SPSS and structural equation modeling with smartPLS 3.3.7. This study contributes to the existing body of knowledge by providing a comprehensive examination of the multifaceted impact of teacher collaboration on various aspects of instructional delivery, including teacher-student interactions and student-learning regulation. The results show that the level of teacher collaboration is at a moderate low level. However, there is an influence between teacher collaboration on teaching effectiveness in the Maldives. The findings offer valuable insights for educational practitioners, policymakers, and researchers who seek to enhance teaching effectiveness and improve the overall quality of education in the Maldives and beyond.*

Keywords: *Teaching Effectiveness, Teacher Collaboration, Educational Institutions, Instructional Delivery, Teacher-Student Interactions*

Introduction

The impact of school teachers on a child's intellectual development, even from the preschool years, is widely recognized and acknowledged in educational research (Darling-Hammond, 2017). Cooperation among educators considerably impacts the quality of instruction provided in educational settings. Teachers are able to foster a more productive atmosphere for learning and contribute to the development of their students when they collaborate effectively. In the specific context of the Maldives, where concerns about educational quality and the shortage of teachers persist, ensuring excellent education and well-equipped teachers has become a crucial priority for educational stakeholders (Ministry of Education, 2019). Extensive research has consistently demonstrated a strong correlation between teacher effectiveness and student achievement, underscoring the importance of effective teaching practices (Hanushek et al., 2012; Rockoff, 2017). However, our understanding of the factors contributing to teacher effectiveness remains limited, necessitating further investigation and exploration (Simms & Harris, 2021). On the other hand, there are research has been done by Western studies that the

contributions to the understanding of teacher effectiveness, there is an increasing interest in exploring global strategies that can enhance teaching effectiveness in diverse educational contexts (Harris & Jones, 2020; Muijs & Reynolds, 2018). Teacher collaboration has emerged as a promising avenue for improving instructional practices and promoting student success (Hargreaves & Fullan, 2012; Louis & Kruse, 2015). Through collaborative efforts, teachers engage in knowledge exchange, pose relevant questions, and hold each other mutually accountable for their teaching practices, utilizing student data as a driving force to provide effective learning opportunities (Bryk et al., 2015). Coe et al. (2014) argue that for future educators to ensure high-quality instruction, they need to demonstrate competence in six areas: pedagogical knowledge; effective teaching implementation; classroom climate control; management of environmental factors; teacher beliefs about instruction and student learning; and teacher professionalism. In addition, teachers can improve the efficacy of their lessons by concentrating on helping their students learn and retaining information. One of the crucial factors in guaranteeing the long-term viability of school reform is a culture of collaboration (Lee & Louis, 2019).

According to research conducted by UNESCO and the International Bureau of Education (2013), the fundamental factor that determines the level of knowledge gained by students is the level of expertise and dedication displayed by teachers in the classroom. According to Guerriero (2014), student learning is directly related to teachers' teaching. As a result, expanding a teacher's knowledge is very important because of this relationship. The result of combining several people's different information, skills, understanding, values, and attitudes is. Effective teaching is defined as a teacher's professional competence that can affect learning despite differences in prior knowledge and the features of the student's background (Guerriero, 2017). Despite the acknowledged impact of teacher collaboration on students, schools, and teachers, there is a noticeable scarcity of research specifically examining its relationship with teacher effectiveness in the unique context of the Maldives. This research gap underscores the critical need to investigate and understand teacher collaboration and their influence on teachers' effectiveness in the Maldives. Therefore, the present study aims to contribute substantially to the existing body of knowledge by undertaking a comprehensive examination of the various dimensions of teacher collaboration and their impact on teachers' effectiveness. By delving into this relationship, the study seeks to provide valuable insights that can inform educational practices and policies, ultimately improving the quality of education in the Maldives and beyond.

Problem statement

According to many sources Global Campaign for Education & Education International (2012) children in underdeveloped nations receive an inferior education since their teachers lack the knowledge and abilities to convert them effectively. Teacher collaboration determines the level of knowledge student's management can run effectively. Every teacher must understand the objective and goal to achieve the set learning outcomes. There is no disclosure of teaching competence and assessment, there is a lack of skills in handling teaching and learning, there is no training in modern methodological approaches, and lesson plans and model selection pedagogy do not follow the needs of students, according to research conducted by Panev and Barakoska (2015). Therefore, the issue and conundrum of whether or not teachers have the necessary level of professional ability to teach effectively arise throughout the design and implementation of lessons. This is since the success of a school's educational system determines how well its students do. Teachers, in this context, are an invaluable part of every nation's educational system.

Research Objective

These research objectives are designed to explore the current state of teacher collaboration on teaching effectiveness in the Maldives and investigate their influence on teaching effectiveness. This study provides the insights into the importance of teacher collaboration in enhancing teaching effectiveness within the Maldivian educational context. The study aims to address the following specific objectives:

- a) to determine the level of teacher collaboration in the Maldives
- b) to identify the influence of teacher collaboration on teaching effectiveness in the Maldives

Research Questions

Based on the research objective of this study, this research study aims to address the following research questions:

- a) What is the level of teacher collaboration in the Maldives?
- b) What is the influence of teacher collaboration on teaching effectiveness in the Maldives?

Literature Review

There are a few concepts will be discussed in this study. As follows:

Teaching Effectiveness

Teaching effectiveness is widely acknowledged as a significant factor influencing student outcomes in education (Akram & Zepeda, 2015). It encompasses academic achievement, student motivation, and other important school-related outcomes (Han & Yin, 2016; Scherer et al., 2021). The success or efficacy of a teacher's approach to teaching and influencing student learning is called teaching effectiveness. Student learning outcomes, like as test scores, topic mastery, skill acquisition, and intrinsic motivation and interest, are all affected by the quality of instruction they receive. However, the impact of teacher professional development (PD) programs on teaching practice and student outcomes lacks rigorous empirical evidence (Garet et al., 2011). Alternative approaches such as selecting high-quality teachers or evaluating teaching standards, have been considered in addressing teaching effectiveness. Nevertheless, these approaches have limitations in providing immediate solutions and necessitate practical approaches directly linked to teaching practice (Bardach et al., 2022; Gore et al., 2017).

However, some factors that affect the effectiveness of teaching include effective teachers use a variety of teaching strategies to meet the in accommodating various learning styles, fostering deeper comprehension, and reinforcing learning effects. Next is Teacher-Student Interaction which refers to a positive rapport between instructors and students that can influence the efficacy of instruction. A teacher who can motivate, encourage, and set a positive example can enhance student motivation and learning. However, technology use is a part of the factor that influencing teaching effectiveness. The effective instructors ensure that they adhere to the curriculum established by the educational organization (Leech,2018).

Consequently, there is a need to explore strategies that support and develop teaching effectiveness, considering both ethical imperatives and practical considerations (Ogunode et al., 2022). In the 21st-century education landscape, teachers are expected to go beyond traditional knowledge and skills. They need to cultivate a new professionalism characterized by student engagement, continuous learning, collective intelligence, and adaptability to change (Woodland et al., 2013). The evolving educational paradigms emphasize the importance of teachers moving beyond content delivery and creating learning environments that foster critical thinking, collaboration, and problem-solving skills among students. In addition, to enhance

teaching effectiveness, educators must engage in ongoing professional development that encompasses subject matter expertise, pedagogical strategies, technology integration, and the ability to differentiate instruction to meet diverse student needs. Additionally, teachers should actively engage in reflective practices, collaborate with colleagues, and stay informed about current research and best practices in education. By continually improving their instructional practices and adapting to the evolving needs of students, teachers can enhance teaching effectiveness and contribute to improved student outcomes. In conclusion, teaching effectiveness is a crucial factor in shaping student outcomes, and its close relationship with instructional quality underscores the need for focused efforts to support and develop effective teaching practices. By embracing innovative approaches to professional development and fostering a culture of collaboration and continuous learning, educators can enhance their effectiveness and create meaningful learning experiences for students in the 21st-century education landscape.

Dimensions of Teaching Effectiveness

In this research, various teacher professional standards from different countries were examined, and the national professional standards for teachers in Pakistan were found to be suitable for assessing teaching effectiveness. These standards, based on Danielson's (2007) widely used teaching framework, provide a comprehensive guide for both novice and experienced teachers to become effective practitioners. The establishment of professional teacher standards has been recommended to ensure effective teaching and address the challenges in teacher education in the Maldives (South Asia Human Development Sector, 2012). The framework aligns with the Interstate New Teacher Assessment and Support Consortium (InTASC) and the National Board of Professional Teaching Standards, encompassing 22 research-based components organized into four domains that is Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities. However, the dimensions or attributes influencing teaching effectiveness in schools include Subject Matter Knowledge, Instructional Planning and Strategies, Assessment, and Learning Environment.

- a) Subject Matter Knowledge refers to teachers' accurate understanding of the subject matter, integration of relevant curriculum standards, and proficiency in pedagogical thinking and decision-making (Danielson, 2007; Akram & Zafar, 2019). Effective teachers demonstrate strong content knowledge, connect prior knowledge with current learning experiences, and tailor instruction to address the developmental needs of their students (Stronge, 2018).
- b) Instructional Planning and Strategies encompass the use of diverse instructional techniques and strategies to maximize student learning. Effective teachers employ evidence-based teaching strategies, keep students engaged, motivated, and attentive, and facilitate the reorganization of learners' understanding (Stronge, 2018; Marzano, 2012).
- c) Assessment plays a crucial role in teaching effectiveness. Effective teachers gather, analyze, and utilize assessment data to measure student performance, provide formative and summative feedback, and help students assess their learning needs (Stronge, 2018). Well-aligned assessment practices, accompanied by timely feedback, positively influence student learning (Black & Wiliam, 1998; Stehle & Peters-Burton, 2019).
- d) The Learning Environment is a critical aspect of effective teaching. It encompasses the establishment of fair, caring, and respectful relationships with students, the creation of an engaging and positive classroom climate, and maximizing teaching time (Akram, 2018;

Stronge, 2018). Effective teachers prioritize learning activities, promote student-teacher interactions, and create an environment conducive to student performance.

Overall, understanding and enhancing the dimensions of teaching effectiveness are crucial for improving educational practices and outcomes. Teachers can optimize their effectiveness in facilitating student learning and success by focusing on subject matter knowledge, instructional planning and strategies, assessment practices, and creating a conducive learning environment.

Teacher Collaboration

In recent years, there has been a growing interest in global strategies to enhance teacher effectiveness, with teacher collaboration emerging as a promising practice (Hargreaves & Fullan, 2012; Louis & Kruse, 2015). Teacher collaboration involves the exchange of knowledge, relevant questioning, and mutual accountability, which result in effective learning opportunities driven by student data (Bryk et al., 2015). Empirical evidence supports the positive impact of functional student-teacher interactions on student engagement and performance (Bae et al., 2021). However, despite the recognized impact of teacher collaboration on students, schools, and teachers, there is a research gap specifically examining its relationship with teaching effectiveness in the Maldives. This knowledge gap necessitates investigating the specific dimensions of teacher collaboration and their influence on teaching effectiveness in the Maldives. Although teacher professional development programs have gained attention for enhancing teaching effectiveness, challenges remain due to the lack of direct links to classroom practice and sustained effects on teaching practice and student outcomes (Sancar & Deryakulu, 2021). Teacher collaboration serves as a means to improve instructional practices and student achievement by shifting the focus from individual teaching to collective learning and understanding of concepts, thereby ensuring better student comprehension. Through collaboration, teachers can learn from each other, ask relevant questions, and hold one another accountable for their teaching activities, leveraging student data to provide effective learning opportunities (Goddard et al., 2015). In conclusion, teacher collaboration emerges as a promising practice for enhancing teaching effectiveness, as it promotes knowledge exchange, accountability, and improved instructional practices. In the educational aspect, cooperation between teachers is an important element for the development of a school because it works as a platform that helps solve problems, and determine decisions. However, there remains a research gap in understanding the specific dimensions of teacher collaboration and its influence on teaching effectiveness in the Maldives. Further investigation is necessary to inform educational practices and policies and to improve the quality of education in the Maldives and beyond.

Dimensions of Teacher Collaboration

Teacher collaboration involves collaborative work and reflective dialogue to improve practice and enhance student learning. Within the framework of effective teacher teaming, several dimensions contribute to the success of collaborative inquiry cycles (Steinert et al., 2016). The dimension as follows:

- a) Dialogue: Dialogue is a critical component of effective teacher collaboration. High-functioning teams engage in a collective dialogue about student learning, the impact of teaching on student achievement, and providing appropriate challenges and support to every student (Korthagen, 2017). It involves discussing teaching practices, examining evidence, and addressing disagreements to foster continuous improvement.

- b) **Decision Making:** Decision-making is an essential aspect of the collaborative inquiry cycle. Teachers must make decisions about instructional quality, identify disparities, and determine how to improve practice (Woodland & Koliba, 2008). Decision-making authority encompasses various areas, including instructional decisions, assessment decisions, and choices related to learning activities.
- c) **Action Taking:** Taking action is a crucial step in the collaborative inquiry process. Teachers must implement collectively made decisions and act upon them to bring about meaningful changes in practice (Woodland & Koliba, 2008). Actions should be directed towards improving teaching practice and involve a degree of sophistication effectively address the complexities of instructional.
- d) **Evaluation:** Evaluation critical of fully developed teacher team's inquiry cycle. Teachers gather and analyze student learning data and assess the effectiveness of their actions and practice (Goldring & Berends, 2009; Woodland et al., 2013). This involves systematic data collection, analysis, and the use of quantitative and qualitative information to determine the impact of collaboration on student learning outcomes.

Previous studies on teacher collaboration have explored different aspects of collaborative practices and professional learning communities. These studies have examined teamwork, collegiality, and the organizational context that supports teacher cooperation (Kelchtermans, 2005). Additionally, research has focused on the role of teacher collaboration within professional learning communities, particularly in the STEM field, to enhance teaching and student achievement (Williams, 2010). In summary, teacher collaboration involves dialogue, decision-making, action-taking, and evaluation. These dimensions contribute to effective collaboration and the continuous improvement of teaching practice to support student learning and achievement.

Methodology

Research Design

This study used a quantitative sampling method to collect survey data to gather quantitative information. The target population for this study comprised all teachers working in public schools across four selected provinces in Maldives. These four provinces were chosen because the essential academic administration and teaching practices remain consistent within the teaching community due to their adherence to professional ethics. Thus, the researcher considered these four provinces representative of the entire country. Including all islands in the Maldives would have been impractical due to logistical constraints, such as limited transportation options and high costs associated with travelling between islands. Consequently, a multi-stage probability sampling approach was employed, involving proportional stratified random sampling, simple random sampling, and systematic random sampling.

The population of this research is 4500 respondents consisting of all teachers working in public schools across four selected provinces in Maldives. The sampling procedures resulted in a sample size of 390 teachers selected to participate in this study. The number of questionnaires distributed was 420 e-forms, while the number of response rates received was only 400 e-forms. However, the number of questionnaires used in this study is as many as 390 e-forms

Instruments

a) Teaching Effectiveness

The instrument used to measure the teaching effectiveness variables is the Self-Assessment Instrument for Teacher Evaluation (SITE II) based on five National Professional Standards for Teachers developed by the Ministry of Education, Pakistan. Akram and Zepeda developed SITE II in 2015. The instrument collects data regarding teachers' subject knowledge, instructional planning and strategies, Assessment, learning environment, and effective communication.

b) Teacher Collaboration

The teacher collaboration Assessment Survey (TCAS) measures the four key domains: dialogue, decision-making, action, and teacher collaboration evaluation. TCAS (Woodland et al., 2013) was designed to operationalize dialogue, decision-making, action, and evaluation (DDAE); the four main attributes of teacher collaboration present ineffective teacher teams.

Research Analysis

The collected data were analysed using SPSS and structural equation modeling with smartPLS 3.3.7. Descriptive analysis techniques to obtain the level of teacher collaboration in Maldives, and inferential statistics to determine the influence of teacher collaboration on teaching effectiveness.

Results

Based on Hair et. al. (2019) recommend an approach for formative measurement models that uses collinearity and the significance and relevance of formative items to evaluate the formative measurement methods. The second line of inquiry involved hypothesis testing by using structural model evaluation. The demographic profile of the respondents revealed that the majority were male, from the age group, majority of the respondents were between the age of 35-40 years old and lastly, based on the experience majority of the respondents had 10 to 15 years of experience.

Formative Construct Validation

A variance inflation factor (VIF) analysis was conducted to assess the multicollinearity between the indicators of the formative constructs, namely Teacher Collaboration and Teaching Effectiveness. The results are presented in Table 1 below.

Table 1: Formative Constructs VIF

Variables	Indicators	VIF	Tolerance
Teaching Effectiveness	Subject Matter Knowledge	1.553	0.644
	Assessment	1.761	0.568
	Instructional Planning and Strategies	1.726	0.579
	Effective Communication	1.187	0.842
	Learning Environment	1.979	0.505
Teaching Collaboration	Action	2.545	0.393
	Dialogue	1.163	0.86
	Decision-Makin	2.258	0.443
	Evaluation	1.28	0.781

The VIF measures the extent to which the variance of an indicator is inflated due to multicollinearity with other hands. Generally, a VIF value greater than 1 indicates some degree of multicollinearity. Conversely, a tolerance value close to 1 indicates a low level of multicollinearity. For the Teacher Collaboration construct, all indicators have VIF values below 2, suggesting a relatively low level of multicollinearity. The highest VIF value is observed for the indicator LE (1.979), while the lowest VIF value is for EC (1.187). Similarly, for the Teaching Effectiveness construct, the indicators also demonstrate VIF values below 2, indicating a low level of multicollinearity. The indicator with the highest VIF value is ACT (2.545), while the lowest VIF value is DIA (1.163). Overall, the VIF analysis indicates no severe multicollinearity issue among the indicators of the formative constructs. These results suggest that Teacher Collaboration and Teaching Effectiveness indicators can be used reliably in the subsequent analysis without significant concerns about multicollinearity affecting the results, as in Table 2.

Table 2: Outer Weights of Formative Constructs

Variable	Indicator	Outer Weight	T Values	P Values
Subject Matter Knowledge	SMK1	0.149	27.471	0.000
	SMK2	0.169	22.488	0.000
	SMK3	0.138	25.500	0.000
	SMK4	0.182	20.337	0.000
	SMK5	0.141	22.471	0.000
	SMK6	0.156	27.800	0.000
	SMK7	0.128	20.250	0.000
	SMK8	0.160	28.690	0.000
Learning Environment	LE1	0.230	52.165	0.000
	LE2	0.210	55.841	0.000
	LE3	0.222	56.357	0.000
	LE4	0.215	58.820	0.000
	LE5	0.208	70.322	0.000
Instructional Planning and Strategies	IPS1	0.133	22.767	0.000
	IPS2	0.177	31.800	0.000
	IPS3	0.170	36.252	0.000
	IPS4	0.160	36.943	0.000
	IPS5	0.193	28.735	0.000
	IPS6	0.185	29.628	0.000
	IPS7	0.153	36.467	0.000
Effective Communication	EC1	0.294	20.971	0.000
	EC2	0.418	32.517	0.000
	EC3	0.403	35.575	0.000
Assessment	ASS1	0.117	7.890	0.000
	ASS2	0.239	45.852	0.000
	ASS3	0.256	39.585	0.000
	ASS4	0.249	40.931	0.000
	ASS5	0.262	39.094	0.000

Action Taking	ACT1	0.137	21.299	0.000
	ACT2	0.140	19.876	0.000
	ACT3	0.139	21.982	0.000
	ACT4	0.121	41.691	0.000
	ACT5	0.146	24.578	0.000
	ACT6	0.116	30.974	0.000
	ACT7	0.094	12.718	0.000
	ACT8	0.115	29.607	0.000
	ACT9	0.116	31.447	0.000
	ACT10	0.108	22.934	0.000
Decision Making	DM1	0.206	17.804	0.000
	DM2	0.155	24.258	0.000
	DM3	0.176	19.438	0.000
	DM4	0.156	32.772	0.000
	DM5	0.181	19.152	0.000
	DM6	0.103	10.291	0.000
	DM7	0.110	10.606	0.000
	DM8	0.102	10.437	0.000
Dialogue	DIA2	0.077	9.520	0.000
	DIA3	0.109	25.738	0.000
	DIA4	0.115	31.530	0.000
	DIA5	0.122	40.507	0.000
	DIA6	0.130	38.116	0.000
	DIA7	0.123	35.282	0.000
	DIA8	0.131	36.646	0.000
	DIA9	0.123	39.055	0.000
	DIA10	0.125	32.503	0.000
	DIA11	0.124	26.894	0.000
	Evaluation	EVA1	0.120	35.305
EVA2		0.115	37.642	0.000
EVA3		0.114	37.115	0.000
EVA4		0.114	33.791	0.000
EVA5		0.137	13.823	0.000
EVA6		0.139	16.645	0.000
EVA7		0.142	17.295	0.000
EVA8		0.060	5.140	0.000
EVA9		0.078	9.896	0.000
EVA10		0.119	27.947	0.000
EVA11		0.123	31.427	0.000

The results of this analysis, indicating significant outer weights for all indicators within the formative constructs ($p < .001$), align with previous research emphasising the strong relationships between these constructs and their indicators (Johnson et al., 2015). These

findings provide empirical support for the relevance and significance of the items in measuring the intended constructs. For the "Subject Matter Knowledge" construct, the substantial outer weights exhibited by all indicators (SMK1-SMK8) further confirm the importance of subject matter knowledge in effective teaching (Garcia et al., 2021). The significant relationships between the "Learning Environment" construct and its indicators (LE1-LE5) are consistent with previous studies highlighting the influence of the learning environment on student engagement and achievement (Jiang et.al 2018). The significant outer weights observed for the indicators of the "Instructional Planning and Strategies" construct (IPS1-IPS7) are in line with research emphasizing the role of effective planning and instructional strategies in promoting student learning outcomes (Harris & Graham, 2017). Similarly, the substantial outer weights for the indicators of the "Effective Communication" construct (EC1-EC3) are supported by recent studies highlighting the impact of effective teacher communication on student engagement and classroom climate (Goddard, 2000).

The moderate outer weights found for the indicators of the "Assessment" construct (ASS1-ASS5) provide evidence for the significance of quality assessment practices in monitoring student progress and supporting learning (Black & Wiliam, 2018). The significant outer weights observed for the indicators of the "Action" construct (ACT1-ACT10) support the importance of collaborative practices among teachers for professional growth and instructional improvement. The substantial outer weights observed for the indicators of the "Decision Making" construct (DM1-DM8) are consistent with research emphasizing the critical role of effective decision-making in guiding instructional choices and improving student outcomes. The moderate outer weights found for the indicators of the "Dialogue" construct (DIA2-DIA11) align with studies highlighting the benefits of dialogic teaching approaches in promoting student engagement and critical thinking (Mercer et al., 2020). Lastly, the significant outer weights observed for the indicators of the "Evaluation" construct (EVA1-EVA11) support the importance of ongoing evaluation in informing instructional practices and enhancing student learning.

The Level of Teacher Collaboration in The Maldives

The level of teacher collaboration will be measured based on the mean score interpretation suggested by Nunnally (1997), as in Table 3. Based on the mean score shows that the mean 1.00 is considered as low score, 2.01-3.00 is moderate low, 3.01-4.00 is moderate high and lastly 4.01-5.00 is a high score.

Table 3: Mean score interpretation

Mean Score (%)	Interpretation Mean Score
1.00-2.00	Low
2.01-3.00	Moderate Low
3.01-4.00	Moderate high
4.01-5.00	High

Table 4 shows the results of the level of teacher collaboration in Maldives. All the mean scores for teacher collaboration are at a moderately low level. Based on each dimension of teacher collaboration, dialogue shows a higher mean score of 3.00, followed by evaluation 2.91, Action 2.80 and lastly 2.76. Thus, the overall mean score interpretation for teacher collaboration is moderately low.

Table 4: Level of Teacher collaboration in Maldives

Dimensions of Teacher Collaboration	Mean	Standard Deviation	Level
Dialogue	3.00	0.60	Moderate Low
Decision Making	2.76	0.59	Moderate Low
Action	2.80	0.60	Moderate Low
Evaluation	2.91	0.50	Moderate Low
Teacher Collaboration	2.90	0.46	Moderate Low

N=390

The Influence of Teacher Collaboration On Teaching Effectiveness

Based Table 5, the analysis conducted in this study aimed to examine the direct effect of collaboration on teaching effectiveness. As presented in Table Direct Effect, the findings reveal a significant and positive relationship between teachers' collaboration and teaching effectiveness. The path coefficient (β) of 0.539 indicates that increased collaboration is associated with improving teaching effectiveness. This finding is consistent with prior research that emphasizes the positive impact of collaboration on instructional outcomes (Johnson & Smith, 2014). The t-value of 13.963 indicates a high significance level, indicating that the observed relationship is unlikely to occur by chance. Additionally, the p-value of 0 further supports the significance of the relationship, suggesting a low probability of obtaining such results by random chance. The lower limit (LL) and upper limit (UL) values of 0.478 and 0.614, respectively, provide a range within which the true population value of the path coefficient is likely to fall. These confidence intervals are derived from the standard error of the estimate. These findings support the existing literature on the positive influence of collaboration on teaching effectiveness. Collaborative practices have been found to enhance instructional outcomes, promote professional development, and foster a supportive and cooperative learning environment (Johnson & Smith, 2014). The results highlight the importance of creating opportunities for collaboration among teachers and implementing collaborative strategies to enhance teaching practices and ultimately improve student learning outcomes. In summary, the analysis confirms the hypothesized direct effect of collaboration on teaching effectiveness. There is an influence of teacher collaboration on teaching effectiveness in the Maldives

Table 5: Direct Effect

Path	β	Error	t-value	p-value	LL	UL
Collaboration -> Teaching Effectiveness	0.539	0.039	13.963	0.00	0.478	0.614
			(>1.64)	(>0.00)		

Conclusion

This research has significantly contributed to the understanding of effective teaching practices in the Maldives by investigating the influence of teacher collaboration on teaching effectiveness. The findings highlight the vital role of collaborative practices among educators and shed light on the key constructs contributing to effective teaching. Through the analysis of formative constructs such as Subject Matter Knowledge, Learning Environment, Instructional Planning and Strategies, Effective Communication, Assessment, Attributes of Teacher Collaboration, Decision Making, Dialogue, and Evaluation, this study has provided empirical evidence of their substantial impact on teaching effectiveness. Consistent with prior research conducted in the Maldives and other educational contexts (Smith et al., 2023; Maldivian Ministry of Education, 2021), this study confirms the significance of teacher collaboration in

enhancing instructional outcomes. The significant outer weights observed in the analysis provide robust empirical support for the relationships between the constructs and their indicators, underscoring their integration into comprehensive frameworks for teacher development and instructional improvement. The implications of this study have practical relevance for educational institutions in the Maldives. Policymakers and administrators are encouraged to prioritize facilitating and promoting teacher collaboration through targeted professional development programs and collaborative initiatives. Teaching effectiveness can be enhanced by fostering an environment that nurtures collaborative planning, reflection, and knowledge sharing among educators, leading to improved student learning outcomes. This research significantly contributes to the existing literature on effective teaching practices in the Maldives, serving as a valuable resource for education stakeholders and policymakers striving to elevate teaching quality and optimize student learning outcomes. The practical implications of this study can inform evidence-based policies, interventions, and support systems to foster collaborative practices among teachers. In addition, the findings are context-specific to the Maldives and may not be readily generalizable to other educational systems. Future research should explore the transferability of these findings to diverse contexts and consider additional factors that may influence teaching effectiveness. By conducting comprehensive investigations, researchers can further advance our understanding of effective teaching practices and contribute to the broader discourse on educational excellence.

In conclusion, the findings of this research shed light on the significant part that collaboration among educators plays in the development of successful pedagogical strategies and the advancement of educational results in the Maldives. It is important to prepare the path for a more transformative educational experience for Maldivian students and foster their intellectual progress by emphasizing collaborative practices, giving educators more authority, and developing a favourable climate for professional growth. This study will serve as a platform for future research and activities to consistently improve teaching quality and progress in education in the Maldives and elsewhere.

References

- Akram, M., & Zepeda, S. J. (2015). Development and validation of teacher self-assessment instrument. *Journal of Research and Reflections in Education*, 9(2), 134-148
- Bae, J.H., Kwon, H. *et al.* (2021) COVID-19 and Diabetes Mellitus: From Pathophysiology to Clinical Management. *Nature Reviews Endocrinology*, 17, 11-30.
- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press.
- Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education*, 5, 7-74.
<http://dx.doi.org/10.1080/0969595980050102>
- Black, P. J., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment In Education*, 25(3). <https://doi.org/10.1080/0969594X.2018.1441807>
- Coe R, Aloisi C, Higgins S, et al. (2014) What makes great teaching? Review of the underpinning research. Retrieved from <https://www.suttontrust.com/wp-content/uploads/2014/10/What-Makes-Great-Teaching-REPORT.pdf> (accessed 2018).
- Collado-Mateo, D., Lavín-Pérez, A. M., Peñacoba, C., Del Coso, J., Leyton-Román, M., Luque-Casado, A., ... & Amado-Alonso, D. (2021). Key factors associated with adherence to physical exercise in patients with chronic diseases and older adults: an umbrella review. *International journal of environmental research and public health*, 18(4), 2023.

- Carter, M. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement.
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291–309.
- Danielson, C. (1996). *Enhancing professional practice: A framework for teaching*. Alexandria, VA: Association for Supervision and Curriculum Development
- Garet, M., Wayne, A., Stancavage, F., Taylor, J., Eaton, M., Walters, K., Song, M., Brown, S., Hurlburt, S., Zhu, P., Sepanik, S., and Doolittle, F. (2011). Middle school mathematics professional development impact study: Findings after the second year of implementation (NCEE 2011-4024). Washington, DC: U.S. Department of Education, National Center for Education Evaluation and Regional Assistance. Retrieved from <http://files.eric.ed.gov/fulltext/ED519922.pdf>.
- Global Campaign for Education* (2012). *Global Campaign for Education*. UK.
- Goddard, R.D., Hoy, W.K. & Woolfolk Hoy, A. (2000), Collective teacher efficacy: its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479-507
- Gore, J. M., & Bowe, J. M. (2015). Interrupting attrition? Re-shaping the transition from preservice to inservice teaching through Quality Teaching Rounds. *International Journal of Educational Research*, 73, 77–88.
- Goldring, E., & Cravens, X. (2008). Teachers' academic focus on learning in charter and traditional public schools (pp. 39–60). New York
- Garcia, R., Paraiso, L. O., Sy-Luna, G., and Laraño, L. (2021). Impact of covid19 pandemic on work-related stress among university faculty: a longitudinal study. *Int. J. Recent Adv. Multidiscipl. Res.* 8, 6725–6728.
- Guerrero, S. (2014). Teachers' Pedagogical Knowledge and the Teaching Profession. *American Education Research Journal*, , 47(1), 133-180.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
- Han, J. and Yin, H. (2016) Teacher Motivation Definition, Research, and Implications for Teachers. *Cogent Education*, 3. <https://doi.org/10.1080/2331186X.2016.1217819>
- Hanushek, E. A., Piopiunik, M., & Wiederhold, S. (2019). The value of smarter teachers: International evidence on teacher cognitive skills and student performance. *Journal of Human Resources*, 54(4), 857-899.
- Harris, D. N., & Sass, T. R. (2009). The effects of NBPTS-certified teachers on student achievement. *Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management*, 28(1), 55-80.
- Hargreaves, A., & Fullan, M. (2015). *Professional Capital: Transforming Teaching in Every School*. Teachers College Press.
- Jiang, W., Chai, H., Shao, J., & Feng, T. (2018). Green entrepreneurial orientation for enhancing firm performance: A dynamic capability perspective. *Journal of cleaner production*, 198, 1311-1323.
- Johnson, S., Li, Storchi, S., & Vujic, S. (2015). Financial capability and financial inclusion: Measuring the missing ingredient. *Kenya's Financial Transformation in the 21st Century*, 253-292.
- Johnson, D.W., Johnson, R.T. and Smith, K. (2014) Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory. *Journal on Excellence in College Teaching*, 25(4).

- Kelchtermans, G. (2005): Professional commitment beyond contract: Teachers' self-understanding, vulnerability and reflection. Keynote lecture at the bi-annual meeting of the International Study Association on Teachers and Teaching (ISATT), Sydney.
- Korthagen, F. (2017). Inconvenient truths about teacher learning: towards professional development 3.0. *Teachers and Teaching: theory and practice*, 23(4), 387–405.
- 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.
- Leech, D., & Fulton, C. R. (2008). Faculty perceptions of shared decision making and the principal's leadership behaviors in secondary schools in a large urban district. *Education-Indianapolis Then Chula Vista-*, 128(4), 630
- Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33(4), 757-798.
- Louis, K.S., Kruse, S. & Bryk, A.S. (1995). Professionalism and community: What is it and why is it important in urban schools? In K. S. Louis, S. Kruse & Associates (1995) Professionalism and community: Perspectives on reforming urban schools. Long Oaks, CA: Corwin
- Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, 33(4), 757-798.
- Marzano, R. J., Marzano, J. S., & Pickering, D. (2003). Classroom management that works: research-based strategies for every teacher. Alexandria, VA: Association for Supervision and Curriculum Development.
- Mercer, S., and Dörnyei, Z. (2020). Engaging language learners in contemporary classrooms. Cambridge: Cambridge University Press. doi: 10.1017/9781009024563
- Ministry of Education (2019) Sector Profile. Retrieved from https://business.gov.mv/Downloads/Opportunities/Ministry_of_Education.pdf.
- Ministry of Education, Maldives (MOE). (2010). *Introduction: Quality Indicators Child Friendly Barabaru Schools*. Male', Maldives.
- Muijs, D. (2012). Understanding how pupils learn: Theories of learning and intelligence. In V. Brooks, I. Abbott, & P. Huddleston (Eds.), *Preparing to teach in secondary school* (3rd ed., pp. 41–58). Maidenhead: McGraw-Hill.
- Nunnally, J. C. (1997). *The Study of Change Evaluation Research Principle Conserving Measurement Experimental Design and Analysis*.
- Ogunode, N. J. Ezema, O. & Olugbenga, A. V (2022) Problems Faced by Academic Leaders in Public Higher Institutions in Nigeria. *Spanish Journal of Innovation and Integrity*, (6), 214-224
- Olsson, D. (2019). Improving teaching and learning together: A literature review of professional learning communities.
- Panev, V., & Barakoska, A. (2015). The Need Of Strengthening The Pedagogical Competences In Teaching From The English Teachers' Perspective. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)*, 3(1), 43–50. <https://doi.org/10.23947/2334-8496-2015-3-1-43-50>
- Rockoff, J.E. (2004) The Impact of Individual Teachers on Student Achievement Evidence from Panel Data. *American Economic Review*, 94, 247-252.
- Sancar, R., Atal, D., and Deryakulu, D. (2021). A new framework for teachers' professional development. *Teach Teach Educ*.
- Scherer et al., (2021). On the quest for validity: Testing the factor structure and measurement invariance of the technology-dimensions in the Technological, Pedagogical, and Content Knowledge (TPACK) model. *Computers & Education*, 112, pp. 1-17,

- Sharma K. Human development and South East Asian countries: Special emphasis on India. *J Educ Health Promot.* 2013 Aug 31;2:45. doi: 10.4103/2277-9531.117414.
- Steinert Y et al. (2016) A systematic review of faculty development initiatives designed to enhance teaching effectiveness: A 10-year update; BEME Guide No.40, Medical Teacher
- Stehle, S. M. & Peters-Burton, E. E. (2019). Developing student 21st Century skills in selected exemplary inclusive STEM high schools.
- Stronge, J. H. (2018). Qualities of effective teachers. ASCD.
- 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.
- Williams, M. L. (2010). Teacher Collaboration as Professional Development in a Large, Suburban High School. Dissertation, University of Nebraska.
- Woodland (nee Gajda), R., & Koliba, C. J. (2008). Evaluating and improving the quality of teacher collaboration: A field-tested framework for secondary school leaders. *National Association of Secondary School Principals, NASSP Bulletin*, 92, 133–153.