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## Author Guidelines

**Overview.** Al-Manhaj is the double-blind peer reviewed academic journal published by Centre for Research and Publication, Islamic University of Maldives. Al Manhaj aims to publish high quality research that can disseminate and advance knowledge in diverse areas and fields. The journal allows submission of research articles in three languages; English, Dhivehi and Arabic so as to reach both the local community and the international community.

**Purpose.** The purpose of Al-Manhaj is to disseminate timely knowledge from a broad range of disciplines including education, sharia and law, Islamic banking and finance and so on. The reason for keeping this broad spectrum is to provide a platform for postgraduate students and staff to publish and engage in scholarly academic discussions relevant to the local as well as internationally community. The generalist approach also aims to appeal to a wider audience with sub-disciplinary interests.

**Frequency.** The journal will be published once a year.

**Criteria for publication.** To be published in Al-Manhaj, a manuscript must meet the following general criteria;

- Provide strong methodology with evidence for the conclusions
- Novel or original ideas
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- Interesting to other researchers in the field
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**Content.** Al-Manhaj seeks to publish a wide range of scholarly contributions including;

**Research articles.** Original research articles that advance knowledge in a given field. These articles should be no longer than 9000 words in length, including abstract, key words, footnotes, references and also approximations for figures and tables. Articles submitted for publication should not have been published, or is in consideration for publication, elsewhere.

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### **Manuscript format.**

All the text must be written using 1.5 line spacing, including the reference list. The article should normally consist of the following parts.

**Abstract.** The abstract must be brief, informative and self-explanatory. It must be between 150-200 words in length and should concisely summarise all important results of the paper without excessive methodical and experimental details.

**Key words.** Below the abstract, about 3 to 7 key words characterising the paper should be listed.

**Introduction.** The introduction should give a concise background and provide the rationale to the study. It should provide a clear statement of the problem and should be understandable to colleagues from a broad range of scientific disciplines.

**Title Page.** The title page should contain the title of the paper, names(s) and address(es) of the author(s), the name of the corresponding author (marked with asterisk) along with phone and e-mail information.

**Methods.** This section should give detailed and sufficient information of materials and procedures used to allow experiments to be reproduced. Previously published procedures and sources of laboratory procedures should be cited. Information on the equipment model, manufacturer's name and address including the city, province/state and country should be provided. The procedures should be written in past tense and should consist of paragraphs with individual methods

**Finding.** This section should describe the obtained results. All tables, figures, graphs, statistical analyses and sample calculations should be presented in this section.



**Discussion.** The discussion should relate the presented results to those of previous own or other studies, interpret them and draw conclusions. It can outline working hypotheses, theories, and applications.

**Conclusion.** Writing a conclusion is the final part of the research paper, drawing everything together and tying it into initial research objectives. Writing a conclusion involves summing up the paper and giving a very brief description of the results, although you should not go into too much detail about this.

**References.** Al-Manhaj uses the referencing and style conventions of the American Psychological Association.

**Manuscript submission.** Manuscripts for publication should be sent to [al-manhaj@ium.edu.mv](mailto:al-manhaj@ium.edu.mv). Manuscripts should have one and a half line spacing, with ample margins and should be written in Microsoft word format. To enable us to anonymize for blind reviewing, please ensure that all author details are removed including any identifiable reference to the authors and any acknowledgements that may reveal the author's identity. If there are multiple authors, indicate the corresponding author who will check proofs and receive correspondence. All pages must be numbered and avoid footnotes to the text wherever this is reasonably possible.

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**Language editing.** Prior to submission the manuscript must be edited for language. This is to ensure that the academic content of your paper is fully understood by journal editors and reviewers. Language editing does not guarantee that your manuscript will be accepted for publication.

## Editorial

This fifth issue of Al-Manhaj features three research articles, two of which are from the field of education while the other is from the field of psychology.

In the first article, the authors explored the challenges teachers face in implementing differentiated instruction in teaching and learning of English as a second language in an online environment. Using multi-methods of data collection from a limited yet diverse group of participants, the authors identified time, student engagement, internet connection, work submission and monitoring, learning environment, and lack of pedagogical knowledge of differentiated instruction as major challenges. The authors suggest that shifting to hybrid mode of teaching and learning could minimise the drawbacks of employing full online mode.

In the second article, the author employed quantitative data from a selected locality in Maldives to investigate the relationship between school effectiveness and academic performance of lower secondary students. The author engaged correlates of effective schools composed of clear vision, frequent monitoring of student's progress, safe and orderly environment, instructional leadership, protect instructional time, high expectation for success, and positive home-school relationship as the framework for measuring school effectiveness.

In the final article, the authors examined the level of mental wellbeing of general public during the COVID-19 pandemic. Apart from reporting the level of wellbeing, the authors investigated differences in overall wellbeing with respect to several demographic factors including gender, marital status, and employment status. The investigation was further extended using various COVID-19-related factors as well as pre-existing health or psychological conditions of respondents. With all these, the authors intend to offer findings that could be used for designing appropriate interventions.

I conclude this editorial by thanking the authors for choosing Al-manhaj as a platform to share their invaluable knowledge. My sincere gratitude goes to the panel of reviewers who gave time from their tight schedules to give constructive feedback to our authors which strengthened the quality of the papers published.

Visal Moosa, PhD

Acting Dean, Centre for Research and Publication

## **Challenges of implementing differentiated instruction in online English as a second language key stage 3 classroom**

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### **Abstract**

The shift from traditional classroom education to online education affects various aspects of educational practices and implementing different instruction in online classroom is not an exception to this. Differentiated instruction (DI) is tailoring instruction to meet the diverse needs of individual students. Thus, this study aimed to explore the challenges of implementing differentiated instruction in online teaching and learning of English as a Second Language (ESL). A qualitative study was done with the use of semi-structured interviews for teachers and document analysis was done by analyzing lesson plans. Eight participants were chosen from six schools using purposive sampling. The findings were analyzed by thematic analysis. The findings revealed that the major challenges teachers faced were time, student engagement, internet connection, work submission and monitoring, learning environment, and lack of understanding in differentiated instruction. The findings suggested that implementing differentiated instruction during online teaching can be improved by providing better internet connection, parental support, conducting interactive and interesting lessons, motivating students to engage in lessons, changes to be brought to professional development and shifting to hybrid learning.

**Keywords:** Differentiated instruction, Online teaching and learning, Technological pedagogical content knowledge, English as a Second Language

## 1. INTRODUCTION

According to UNESCO (2015, p.7), it states that “no education target should be considered met unless met by all”. On a similar note, this idea is also supported by the education system in the Maldives. The National Curriculum Framework and Education Act stress that all students must be given equal opportunities for education (Ministry of Education [MOE], 2020; National Institute of Education [NIE], 2014). In the Maldives, teaching had initially been carried out in the traditional manner where the teacher teaches, and the students listen and learn. Freire (2005) describes this way of teaching as the ‘banking concept’. However, inequality in education has eradicated to some extent over the years as teaching has become more dialogic which involves the input of both teacher and students. Recent policy changes in the Maldivian curriculum has shifted drastically opposing the traditional teaching style, incorporating differentiated instruction (DI) in the curriculum.

Differentiated instruction includes teaching strategies that provide students with a variety of resources and strategies to meet students individual learning needs (Bafile, 2009). According to Tomlinson (1999), differentiated instruction is when instructional strategies are tailored to meet the various needs, interests, and ability levels of students to increase student achievement. Differentiated instruction was brought to light as a Maldivian national policy in the ‘learner centered teaching and learning – quality indicators’ which is also known as ‘Child-friendly Baraabar schools’ guide (MOE and UNICEF, 2010). The guide emphasizes on the use of differentiated instruction in lesson planning and teaching and learning strategies used. Even though this policy was in place, schools were seldom using differentiated instruction in teaching and learning. Schools began to implement DI in daily teaching and learning along with the recent drastic changes that had been brought to the national curriculum (NIE, 2018). Another policy on pedagogy and assessment also highlights that DI must be applied in teaching and learning. It also reports that differentiated instruction enables students to become more motivated and provides an environment for meaningful learning experiences (NIE, 2014).

Many research has proven the significance of differentiated instruction and how it positively affects teaching and learning (Patalinghug & Arnado, 2021; Gheyssens *et al.*, 2020a; Moosa & Shareefa, 2019; Tomlinson, 2017; Tomlinson, 1999). Opposing the traditional teaching styles, the curriculum had been designed to cater to children’s’ individual needs. Even though these changes has been

brought to the curriculum, there is rising concern about the quality of education that is being provided in the Maldives (Di Biase, 2019; Shiuna & Sodiq, 2013).

The National Curriculum Framework (NCF) states that the curriculum is based on eight key competencies where one of the competencies is using technology and media (NIE, 2016). As the curriculum comprises technology involvement as a major component, the Ministry of Education provided students with tablets to be used for educational purposes (Ibrahim, 2018). Additionally, it has been reported that as of February 2018, almost all schools have access to internet even though connectivity issues have been raised by some islands (MOE, 2019). The emergence of the COVID-19 pandemic made it compulsory for online teaching and learning in all schools. Before the pandemic, most online teaching and learning had taken place in only higher education (Singh and Thurman, 2019). Technology being incorporated in students' learning has become a necessity where it also adds beneficial value in doing so.

In Maldives, formal schooling is from ages 4 till 18 years of age. The education system is bifurcated into 4 phases which is further divided into 5 key stages. Each key stage consists of few grades. In this study, focus has been given on key stage 3 (KS3) which includes grades 7 and 8. KS3 is the key stage which interconnects primary and secondary phases which comprises a combination of subjects from key learning areas (NIE, 2016). English language is the medium of instruction in all schools starting from key stage 1. It is documented in the NCF that teaching English language aims to provide the opportunity for students to use the language efficiently for various purposes with fluency, accuracy and confidence (NIE, 2016). NCF also emphasizes that technology and media to be incorporated when teaching the subject so that students build skills of choosing reliable and appropriate sources and process and share the chosen information using relevant tools.

Research shows that even before the pandemic, teachers showed lack of confidence in implementing differentiated instruction using technology (Millen & Gable, 2016). With the decrease of number of COVID-19 cases in the Maldives, teaching and learning has resumed back to face-to-face teaching. However, research has proven the benefits of online teaching and learning strategies which need to consider for the future, especially considering the emphasis given to differentiated instruction (Idrus, Asri, & Baharom, 2021). It is essential that teachers use online teaching and learning components even in normal teaching circumstances. Even though research shows the benefits of

implementing DI using technology-based learning, there is no such research published in the Maldivian context. Do teachers know different strategies on how to use differentiated instruction in online teaching? Have does teachers implement differentiated instruction effectively in online teaching and learning? How can they integrate DI and technology enabled learning in teaching ESL. Hence, the purpose of this study is to explore the challenges of implementing differentiated instruction in online ESL key stage 3 classroom.

This study would benefit teachers and management of schools to identify the challenges face by teachers in implementing differentiated instruction in online ESL teaching and learning, at the same time, exploring way to minimize the obstacles in applying DI in online ESL classrooms which would provide more opportunities for students with different abilities to flourish in achieving student learning outcomes.

## **2. LITERATURE REVIEW**

### **2.1 Differentiated instruction**

In the traditional ways of teaching, teachers usually had a pre-determined mindset (Mezirow, 1981) on what the students would know and did not ask their prior knowledge on the content taught. Hence, the concept of the zone of proximal development (Vygotsky, 1978) was not met. Teachers will be able to teach to a student's zone of proximal development (ZPD) when the zone is initially identified (Small, 2012). It is essential for teachers to go back in the sequence of teaching (Prast *et al.*, 2018) so that teachers can help students to have a better understanding of the concept taught. Implementing differentiated instruction in teaching allows students to have equal learning opportunities (Tomlinson, 2017; D'Amico & Gallaway, 2008). Grouping students according to their ability groups and assigning tasks appropriate for each group (Tomlinson & Strickland, 2005) will help them meet their ZPD making learning more meaningful. Differentiated instruction also encourage students to work for their personal best (Tomlinson & Strickland, 2005).

It is evident that teachers need to strengthen their knowledge on differentiated instruction in order to effectively implement differentiated instruction in their teaching (Hortal, 2021; Geel *et al.*, 2019; De Neve, Devos & Tuytens, 2015). Geel *et al.* (2019) found that teachers must have good content knowledge to implement differentiated instruction in teaching and learning. Opposing this notion, Millen and Gable (2016) noted that acquiring good content knowledge did not have a significant impact in implementing differentiated instruction.

Moreover, differentiated instruction can take place when pedagogical skills along with content knowledge is applied in teaching, which is pedagogical content knowledge (Shulman, 1986).

Suprayogi, Valcke and Godwin (2017) inferred that differentiated instruction relates with self-efficacy and some other particular teaching beliefs. They believe that high self-efficacy leads to higher differentiated instruction implementation. Likewise, Moosa and Shareefa (2019) noted that high self-efficacy is linked with teacher experience which then leads to higher differentiated instruction implementation. Their findings correlated with Bandura's (1977) theory on self-efficacy which displays that high self-efficacy builds through experience. Moreover, De Neve, Devos and Tuytens (2015) also found that teachers' sense of self-efficacy has a positive impact on their implementation of differentiated instruction in their teaching. Nonetheless, Moosa and Shareefa (2019) reported otherwise stating that the knowledge of differentiated instruction that a teacher exhibited does not correlate with their experience as a teacher.

Several researchers stressed on the importance of professional development in differentiated instruction implementation (Godor, 2021; Gheysens *et al.*, 2020a; Suprayogi, Valcke & Godwin, 2017; Wan, 2016). Most researchers argued that professional development sessions did not include the necessary requirements which would significantly affect teachers in enacting differentiated instruction in their teaching. Godor (2021) reported that professional development sessions must require teachers to explore their own preferences and beliefs on differentiation. Moreover, in the Maldivian context, Shareefa (2021) found that even though trainings were provided on differentiated instruction, teachers needed more in-depth knowledge on what strategies to use to implement differentiated instruction in different situations. They also expressed that they need individual guidance in how they can apply differentiated instruction in the classroom.

Researchers have found some other factors that have an impact on differentiated instruction. Letzel, Pozas and Schneider (2020) found that lack of resources lead to less implementation of differentiated instruction. Moreover, Lynch, Hunt and Lewis (2018) stated that emphasis must be given on lesson planning and planning the lessons in a manner that the cognitive skills of the given tasks can be sustained. Lesson planning can be done for diverse learners. Researchers noted that it is important to think of all the possibilities to keep all of the students involved in the lesson (Letzel, Pozas & Schneider, 2020).

## 2.2 Implementing differentiated instruction in online teaching and learning

A systematic review on research done from year 2009 to 2018 shows that the common themes that emerged in relation to online teaching and learning are online learner characteristics and online student engagement (Martin, Sun & Westine, 2020). Most research done during this period used quantitative research and was done mainly on higher education. It is after the COVID-19 pandemic that online teaching has been brought to light for learners of all ages.

In the context of schools, a study done by Atmojo and Nugroho (2020) revealed that teachers employed various technological tools in online teaching and learning. Teachers who employed numerous tools stated that they use these tools according to the different activities that is carried out in a lesson. Dhawan (2020) has also agreed that in online teaching, the resources and methods of teaching could easily be adjusted in a manner that would best suit the learners' needs.

Moreover, some studies have revealed that it is efficient to implement differentiated instruction in blended learning/hybrid learning. Ferri, Grifoni and Guzzo (2020) believed that a blended learning approach where face-to-face learning is also incorporated in the online teaching and learning is efficient in differentiating instruction. Conversely, Boelens, Voet and Wever's (2021) study found that teachers had varied perspectives on implementing differentiated instruction in blended learning.

One of the challenges highlighted in online teaching and learning researches includes the lack of information communication and technology skills of teachers. Millen and Gable (2016) noted that teachers need to be more technology friendly. Their findings showed that teachers showed minimal levels of confidence when implementing technological tools that aid in providing differentiated instructional strategies which helps students to engage in interesting activities and meet their specialized needs. Hence, teachers need to be well-trained to use ICT in order to effectively use ICT to deliver lessons (MOE, 2019).

In the Maldives, the NCF comprises technology involvement as a major component. Hence, the Ministry of Education has provided students with their own tablets to be used for educational purposes (Ibrahim, 2018). However, it has been noted that the distribution of tablets was not associated with adequate teacher support to use the device when the COVID-19 situation arose (Fikuree *et*



al., 2021). Teachers need to be provided with ample training to use technological tools so that effective teaching and learning can take place.

There is lack of research done on implementing differentiated instruction in online teaching and learning. Most research had been done on either differentiated instruction or online teaching and learning. There has been an increasing number of literatures found after the pandemic as education had to be shifted to online teaching and learning around the globe.

### **2.3 Implementing differentiated instruction when teaching ESL**

English is the medium of instruction used in Maldivian schools. Shiuna and Sodik (2013) has found in their study that there are arguments about English being the medium of instruction in Maldives. Some argue that fluency in both spoken and written English is essential as the Cambridge Ordinary Level examinations are also in English medium. Moreover, they stress on the significance of the language when students go for further studies. However, there are both parents and teachers in disagreement with the idea, stating that as Maldivians, it is necessary for students to be fluent in their native language.

Nghia's (2015) study identified that students perceive their ESL teachers to exhibit effective instructional methods to teach so that their learning needs are met. Similarly, Magableh and Abdullah (2020) surmised that use of differentiated instruction in reading comprehension has also brought positive outcomes. Differentiating content and tiered activities have aided in meeting students' individual needs. Additionally, Putri and Sari's (2021) study found that using asynchronous teaching aids best to implement differentiated instruction in online teaching and learning to teach ESL. The study mentions that challenges that arise when conducting synchronous lessons can be overcome by doing so. Teachers could employ audio recordings, videos, games and other social media platforms to incorporate technology in online teaching and learning asynchronously.

An action research study conducted in the Maldives showed that step-by-step process in writing helped students in the organization of their writings (Ismail, 2019). The step-by-step process of instruction had been delivered to students in accordance with their ability level. The study further infers that ongoing assessment was found to be beneficial to enact differentiated instruction in teaching and learning. Moreover, Nasir and Aziz's (2020) study found that ESL teachers' had positive attitudes towards implementation of collaborative learning in teaching and learning. Differentiated instruction had also been employed by

teachers as a strategy of collaborative learning so that students will gain productive skills in the learning process.

#### **2.4 Challenges in implementing differentiated instruction in online teaching and learning**

Implementing differentiated instruction has many benefits. However, teachers find it challenging to implement it in classrooms for various reasons. Freidus and Noguera (2017) found that some students believe that using differentiated instruction is being unfair. They did not understand why different students get a different task. Researchers have also found that when students question why they have done this for them a different way, they are unable to provide the adequate answer which worsens the situation. Teachers need to be able to respond to their concerns and queries accordingly. Additionally, a study done in the Maldivian setting, Shareefa *et al.* (2019) identified time, resources, knowledge, class size, support and workload as challenges in implementing differentiated instruction. Similarly, Shareefa (2021) also noted that teachers' lack of competence in implementing differentiated instruction and the limited time due to workload and planning on lessons are also major challenges that Maldivian teachers face when implementing differentiated instruction in teaching and learning. Similarly, Nishan (2018) found that regular teachers had difficulties in implementing inclusive education in mainstream schools of Maldives due to lack of resources, large class size, lack of time, lack of trained teachers, and lack of knowledge.

Even though the policy changes incorporate differentiated instruction in lesson planning and implementation, the reality is that it is quite strenuous to implement them due to various factors (Freidus & Noguera, 2017; Nishan, 2018; Shareefa *et al.*, 2019). It is the role of the school leaders, teachers and parents as a whole to make a change in the teaching and learning of students and making differentiated instruction not just be a policy change but practically witnessed inside the classrooms.

Furthermore, Biswas (2021) raised concerns that implementing differentiated instruction in online teaching and learning or even using 21<sup>st</sup> century online tools had been neglected by the teachers. The findings of the study also noted that many challenges arose during the implementation of online teaching and learning. Physical and emotional well-being, technological and pedagogical limitations, online behaviour, safety and privacy and lack of class management mechanism had been revealed as challenges faced in online teaching and learning. According

to Biswas (2021), these challenges in implementing differentiated instruction also include having misconceptions about the notion of differentiated instruction.

Additionally, Dhawan (2020) reports that student engagement and connectivity issues are significant challenges when it comes to online teaching and learning. Similarly, Morgan (2020) found that challenges in online teaching include unequal access to technology. Students are unable to access internet or computers as they are from low income families. Some parents are also unable to support the students due to their low income status. Several research findings point out internet connectivity and student engagement as challenges that occur in online teaching and learning (Nartiningrum & Nugroho, 2021; Rahman, 2020).

Moreover, Dhawan (2020) revealed in his findings that time management is a major challenge in online teaching and learning. However, the challenge of time management has been evident in two ways. Rahman (2020) stated that it is time consuming to prepare lessons prior to teaching whereas Nartiningrum and Nugroho (2021) noted that it is time consuming having to wait for students to join.

## 2.5 Technological pedagogical content knowledge

Technological pedagogical content knowledge (TPACK) (Koehler *et al.*, 2014) is an extension to Shulman's (1986) model of pedagogical content knowledge. The use of TPACK in teaching and learning is crucial in the 21<sup>st</sup> century, where technology is prominent in our everyday lives (Schmid, Brianza and Petko, 2021).

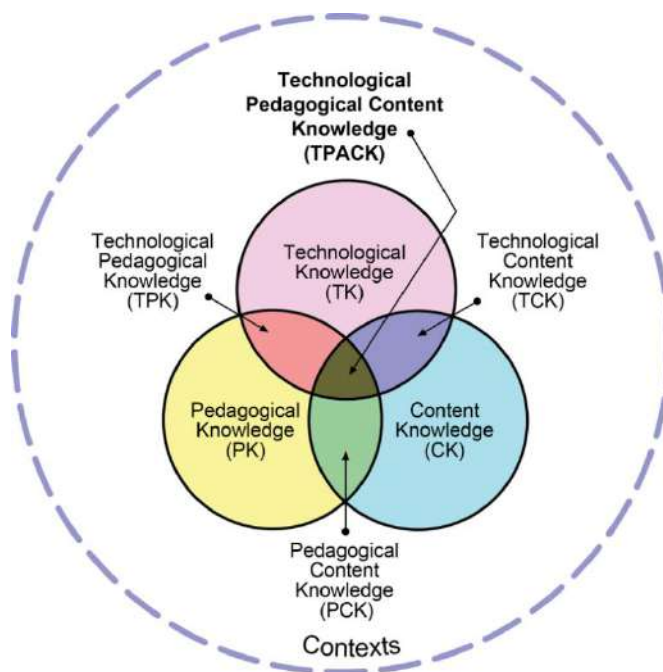


Figure 1: The TPACK framework

Source: <http://tpack.org/>

Technological knowledge, technological content knowledge, content knowledge, pedagogical content knowledge, pedagogical content knowledge and technological content knowledge are the 7 knowledge domains that make up the TPACK framework (Koehler & Mishra, 2005) which is shown below in Figure 1.

Research shows that institutional support for applying TPACK is crucial in their teachers' ability to give clear instructions, provide adequate feedback and keeping student engaged in online teaching and learning (Howard *et al.*, 2021). Teachers who had a positive attitude towards online teaching and learning had been provided with additional pedagogical knowledge in enacting technological tools in their teaching. The study also opines that these teachers with positive attitude

could motivate their colleagues to also develop a positive attitude towards online teaching and learning.

It is alarming that Millen and Gable's (2016) study reported there is minimal integration of differentiated instruction and technology. Their study uncovers that teachers' use of technology was mainly described mostly by websites and not using pedagogical practices.

### **3. METHODOLOGY**

A qualitative study using the interpretivist paradigm was undertaken for this study so that the participants can best describe their perspectives on the implementation of differentiated instruction in online teaching and learning (Cohen, Manion & Morrison, 2018). Purposive sampling (Cohen, Manion & Morrison, 2018) had been chosen for this study as this research focuses on a particular key stage and a particular subject. ESL teachers from KS3 were selected from six schools of Male'. Eight participants were chosen from the six schools.

Data were collected using semi-structured interviews and by document analysis of teachers' lesson plans. Interviews are a form of data collection method in which an interviewer questions an interviewee (Johnson & Christensen, 2014). Saunders, Lewis and Thornhill (2009) explained that semi-structured interviews consist of themes and questions that needs to be asked further. Semi-structured interviews were used for the study as the study requires an in-depth exploration of the implementation of differentiated instruction in online teaching and learning. Teachers were further asked on their experiences based on the responses given by them. Interview questions were pilot tested using 2 teachers teaching ESL in an online setting.

Moreover, document analysis was done by analyzing eight ESL lesson plans from different schools. The lesson plans were analysed to examine if differentiated instruction is evident in the planning of the lessons. Analysing these documents aided in triangulating the data gathered (Gross, 2018). The lesson plans were also analysed to explore the various strategies used to implement differentiated instruction.

Thematic analysis (Braun & Clarke, 2006) was used to analyse the data by gathering 'essence description' to the particular phenomenon. Significant statements of the participants were identified and grouped into themes. The

themes were then synthesized to construct a composite description of participants' experience (Moustakas, 1994).

The validity of the data gathered was guaranteed by the use of triangulation (Bell & Waters, 2018). Triangulation of the data was done by using both interviews and document analysis. Two methods of data collection had been chosen to ensure that the data gathered correlates with each other (Cohen, Manion & Morrison, 2007). In addition to this, to ensure the internal validity, member checking was carried out.

#### **4. FINDINGS AND DISCUSSIONS**

The results of this study revealed that teachers face a lot of challenges in implementing differentiated instruction in online ESL teaching and learning. Some of the main challenges teachers faced are time, student engagement, internet connection, work submission and monitoring, learning environment, lack of understanding on differentiated instruction.

##### **4.1 Time**

Time was a major challenge for teachers for implementing differentiated instruction in online teaching and learning. The findings report that teachers required a significant amount of time prior to the lesson on preparing various activities that would cater for the students. As reported,

*I think the biggest challenge is spending a lot of time searching for the best lesson.*  
– Teacher B

The findings are in line with the findings of Shareefa *et al.* (2019) where their findings also identified time as a major concern in implementing differentiated instruction. However, the study done by Shareefa *et al.* (2021) does not focus on implementing differentiated instruction in online teaching and learning. Nonetheless, the findings of this study are consistent with Dhawan's (2020) findings where time management was identified as a challenge of online teaching and learning. Rahman (2020) also states that it is time consuming to prepare lessons prior to teaching in online teaching and learning.

Additionally, our research findings also reveal that it was time consuming for teachers within the online class itself where teachers had to wait for a long time as responses were not given by students. As stated,

*I have to wait for a long time for one of them to answer. So that is also one issue... Even the getting ready was also challenging did it take a lot of time on students to join before starting... - Teacher C*

Findings also note that teachers had to wait for a long time for the students to join the class. The results are similar with that of Nartiningrum and Nugroho (2021) where they also note that it is time consuming having to wait for students to join.

#### **4.2 Student engagement**

Student engagement was a major concern that has been evident from the findings of the study. Keeping students interested and engaged was a hard task for most teacher in online teaching and learnings. Teachers were unable to know if the students' understood the lesson or not, as there were no responses from students. As described,

*Are they lazy or are they sick? whether they have understood or not... we are not aware of the reasons although much pressurizing them and trying many techniques, but we haven't got much responses...– Teacher H*

Hence, the teachers highlighted the inability to further cater for the individual need of the students during online teaching and learning. A similar conclusion was reached by Dhawan (2020) as students lose focus and concentration and often get distracted during online teaching and learning. The findings are also consistent with that of Rahman (2020) where his findings highlight that teachers find it difficult to understand whether the students understood what is taught or not as there is no eye contact. These findings imply that it is crucial for teachers to engage well with students for effective implementation of differentiated instruction in online teaching and learning. However, from the lesson plans it was not evident that the teachers have planned further instructional strategy to assist student who may need assistance.

#### **4.3 Internet connection**

The quality of the internet connection is a crucial component when it comes to implementing DI in online ESL classroom. The result of the study shows that teachers found online teaching arduous due to connectivity issues they had faced. Teachers and students had trouble with their internet connection so it disrupted student engagement and attendance as well. As explained,

*At the beginning, we started off with that intention that we want everybody to have their camera on so that they know what they're doing. And then a lot of because the internet was slow, because of the streaming of so many students... - Teacher B*

In addition, it was found that even if the teachers are aware of various online learning tools which would help them to implement differentiated instruction within a short period of time, it was not planned as they foresee the internet connection disruption.

*Due the connection they are unable to engage in the lessons. For example, in a game that was given, some students might not be able to log in to it so they would be in the class, but they wouldn't be able to play the game. – Teacher F*

This is consistent with the results of previous studies (Dhawan, 2020; Rahman, 2020) as connectivity issues have been considered as a major concern in online teaching and learning. Similar findings had been reported by Morgan (2020) where the studies reveal that there is inequality in students' access to technology, thus they are unable to access to the internet. Low-income families would not be able to provide the same for their children during online teaching and learning.

#### **4.4 Work submission and monitoring**

Moreover, work submission was also a challenge raised by teachers. The findings of this study shows that few students submitted their works and even if they did, they would submit it late, so it was time consuming for teachers. Especially when students are given different work it was difficult to do the follow up of different works given to the students. It was also found that as students were not submitting their works, teachers were unaware if students have understood the lesson or not, which results in the absence of implementing DI in online classroom. As reported, *Sometimes they submit the works very late. Because they are at convenience and they think that they can do it later and they procrastinate the work, they may get that falls short. It is very difficult. Especially when we consider the different abilities and giving work according to their abilities – Teacher E*

#### **4.5 Learning environment**

It was revealed in the findings that learning environment also made a huge impact on implementing differentiated instruction in online ESL classroom. The findings of this study also note that even though this is an issue, it is a factor that cannot be changed. Teachers have shared their views that most of the time, students do



not have an ideal environment in their homes where they can process learning. As explained,

*and also, there is the environment, but that is something, that's a factor that we cannot control, students are at home and different students are from different backgrounds, so maybe there's nothing we cannot control, not much. – Teacher G*

They might not have a quiet learning environment or a room for themselves so turning on their mic and camera might sometimes be difficult. Teachers have mentioned that they cannot force the students to turn on their mic or camera as they do not know the students' living situation. As described,

*So, at first we cannot force them to switch on the camera because of a lot of things that we have to consider. The environment that they are sitting. We don't know whether they are in a very big family, crowded family or whether they have a very big room for themselves. - Teacher B*

Additionally, teachers have also described the ideal learning environment being physical classrooms as it is solely fit for the purpose. This is evident from the lesson plans as most of the lesson plans were planned without considering the online teaching and learning environment.

#### **4.6 Understanding differentiated instruction**

This study found that teachers had lack of understanding on ways to implement DI in online teaching and learning. Through the interview data, it was found that teachers try to implement DI in online ESL classroom, however, they fail due to some other reasons as stated earlier. However, the results from the document analysis found that the teachers have little knowledge or have not planned to implement differentiated instruction. Seven out of eight lesson plans showed that differentiated instructions were not part of the documented lesson plans and all students were given the same activities regardless of their learning ability or environment. Similarly, when questioned about DI in Online ESL classroom, teachers' responses indicated that they understood the gist of DI but did not have sufficient knowledge on how to implement DI in online ESL classrooms. As noted,

*It is how I teach, I interact, how I give works and assessment based on the diverse ability of the students - Teacher D*

*In the reading comprehension, we did not want to give varied works as students may feel uncomfortable. However, we have given a task where all students can complete. - Teacher B*

It was observed that while stressing difference in instructional strategies, teachers expressed various online instructional strategies associated with students' diversity. The teachers emphasized students' differences through phrases such as "different ability student" "wide range of students", and "various groups of students". When justifying the absence of DI in the lesson plans, Teacher C expressed that "roughly I use the same content in the lesson plan, but then I further adjust it to fit the students' abilities." Hence, the above findings are in line with literature expounding that catering the range of students' is one predominant aspect of DI (Tomlinson, 2017) and that teachers need more professional development programs to enhance their understanding of DI (Shareefa, 2021).

## **5. CONCLUSION**

This study has shed light on the challenges teachers face when implementing differentiated instruction in online teaching and learning of English as a second language.

From the findings of the research, it is evident that teachers face various struggles in implementing differentiated instruction in online ESL classroom. The challenges found from the findings include time, student engagement, internet connection, work submission and monitoring, learning environment and lack of understanding on DI. Even though online learning has its benefits, most teachers had a negative attitude towards online teaching due to the numerous obstacles they face.

If teachers' perspective on implementing differentiated instruction would change, it would be easier for teachers to implement it in their lessons. For most teachers, the term differentiated instruction is too complex and requires a lot of effort to be put in to do so (Dack, 2019). Hence, teachers need to be instructed with the simpler ways in which they can implement differentiated instruction in their lessons in online teaching and learning.

### **5.1 Implications and Recommendations of the Research**

The findings of this research implies that there are ways in which teachers can mitigate the challenges they face when implementing differentiated instruction in online teaching and learning. It is recommended to strengthen the internet

connection, parental support, conducting interactive and interesting lessons, motivating students to engage in lessons, changes in professional development for teachers and hybrid learning. These matters must be prioritized by MOE, school management, teachers and parents in order to have a fruitful teaching and learning experience. It is essential for teachers to be provided with professional development highlighting the misconceptions teachers face and address those. Moreover, policies need to be made on how to implement differentiated instruction in online teaching and learning. Along with policies being made, teachers need instructional and practical guidance on how to overcome the challenges they face so that teaching and learning can be efficient.

Furthermore, the government needs to hold awareness programmes for teachers, parents and also students to encourage them towards online teaching and learning and also stress on how important it is to make use of online platforms in implementing DI in the teaching and learning process. Teachers need to believe the benefits and the convenience of using various online instructional tools which would cater the different need of the students.

Teachers also need to self-learn skills to implement DI in their teaching and learning practices so students will be engaged in learning, enjoy and bring an improvement to their cognitive, psychomotor and affective levels. Additionally, having a good student-teacher relationship aids in how well differentiated instruction can be implemented. Making use of games and interactive platforms would enhance the relationship.

Since this study focuses on exploring the challenges of implementing differentiated instruction during online teaching and also only in English language teaching in Key stage 3, it would be worthwhile to do further research on various key stages to see how it impacts the teaching across key stages. Moreover, doing a study to determine how differentiated instruction is implemented across various subjects could bring about other interesting findings. As the findings of this study are based only on the teaching of ESL, findings from studies done on teaching other subjects like mathematics and science might yield varied results.

Moreover, a comparative study can also be done on determining the challenges in implementing differentiated instruction in physical classrooms and that of online teaching and learning. Most research focuses on challenges so focusing on how to address these challenges faced would also be beneficial. More research

also needs to be done on finding out ways to engage students in online teaching and learning.

## REFERENCES

- Atmojo, A.E.P. & Nugroho, A. (2020). EFL classes must go online! teaching activities and challenges during covid-19 pandemic in Indonesia. *Register Journal* [online]. 13 (1), pp. 49-76. [Accessed 20 January 2021].
- Bafile, C. (2009). Different strokes for little folks: Carol Ann Tomlinson on differentiated instruction. Education World. Online. Retrieved from [http://www.educationworld.com/a\\_issues/chat/chat107.shtml](http://www.educationworld.com/a_issues/chat/chat107.shtml)
- Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. *Psychological Review* [online]. 84 (2), pp. 191-215. [Accessed 20 July 2021].
- Bell, J. & Waters, S. (2018). *Doing Your Research Project: A Guide for First-time Researchers* [online]. 7th ed. London: Open International Publishing Ltd. [Accessed 26 March 2021].
- Biswas, S. (2021). An exploratory case study of online education and incorporation of 21st century skills in secondary classrooms. *EPRA International Journal of Research and Development* [online]. 6 (1), pp. 200-209. [Accessed 29 December 2021].
- Boelens, R., Voet, M. & Wever, B.D. (2018). The design of blended learning in response to student diversity in higher education: instructors' views and use of differentiated instruction in blended learning. *Computers and Education* [online]. 120, pp. 197-212. [Accessed 08 December 2021].
- Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3 (2), 77-101. [Accessed 01 December 2021].
- Cheong-Lum, R.N. & Nevins, D. (2020). *Maldives* [online]. 3rd ed. New York: Cavendish Square Publishing, LLC. [Accessed 23 April 2021].
- Cohen, L., Manion, L. & Morrison, K. (2007.) *Research Methods in Education* [online]. 6th ed. London: Routledge. [Accessed 26 February 2021].
- Cohen, L., Manion, L. & Morrison, K. (2018.) *Research Methods in Education* [online]. 8th ed. London: Routledge. [Accessed 26 February 2021].
- D'Amico, J. & Gallaway, K. (2008). *Differentiated Instruction for the Middle School Math Teacher: Activities and Strategies for an Inclusive Classroom* [online]. San Francisco, CA: Jossey-Bass. [Accessed 08 July 2021].

- Dack, H. (2019). Understanding teacher candidate misconceptions and concerns about differentiated instruction. *The Teacher Educator* [online]. 54 (1), pp. 22-54. [Accessed 02 January 2021].
- De Neve, D., Devos, G. & Tuytens, M. (2015). The importance of job resources and self-efficacy for beginning teachers' professional learning in differentiated instruction. *Teaching and Teacher Education* [online]. 47, pp. 30-41. [Accessed 23 July 2021].
- Dhawan, S. (2020). Online learning: a panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems* [online]. 49 (1), pp. 5-22. [Accessed 02 January 2022].
- Dirkx, J.M. (2012). Self-formation and transformative learning: a response to "calling transformative learning into question: some mutinous thoughts," by Micheal Newman. *Adult Education Quarterly* [online]. 62 (4), pp. 399-405. [Accessed 09 July 2021].
- Ferri, F., Grifoni, P. & Guzzo, T. (2020). Online learning and emergency remote teaching: opportunities and challenges in emergency situations. *Societies* [online]. 10 (86), pp. 1-18. [Accessed 05 December 2021].
- Fikuree, W., Shiyama, A., Muna, A., Naseer, B. & Mohamed, Z. (2021). Challenges to education during the COVID-19 pandemic: a SIDS perspective with special reference to the situation in the Maldives. *The International Education Journal: Comparative Perspectives* [online]. 20 (2), pp. 6-22. [Accessed 23 December 2021].
- Freidus, A. & Noguera, P.A. (2017). Making difference matter: Teaching and learning in desegregated classrooms. *The Teacher Educator* [online]. 52 (2), pp. 99-113. [Accessed 02 July 2021].
- Freire, P. (2005). *Pedagogy of the Oppressed* [online]. 30th anniversary ed. New York: The Continuum International Publishing Group Inc. [Accessed 26 June 2021].
- Geel, M.V., Keuning, T., Frèrejean, J., Dolmans, D., Merriënboer, J.V. & Visscher, A.J. (2019). Capturing the complexity of differentiated instruction. *School Effectiveness and School Improvement* [online]. 30 (1), pp. 51-67. [Accessed 25 July 2021].
- Godor, B.P. (2021). The many faces of teacher differentiation: Using Q methodology to explore teacher preferences for differentiated instruction. *The Teacher Educator* [online]. 56 (1), pp. 43-60. [Accessed 23 July 2021].
- Gross, J.M.S. (2018). Document analysis. In: Frey, B.B. (2018) *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*

- [online]. Thousand Oaks: SAGE Publications, Inc., pp. 1-7. [Accessed 25 December 2021].
- Gubrium, J.F., Holstein, J.A., Marvasti, A.B. & McKinney, K.D. (2012). *The SAGE Handbook of Interview Research: The Complexity of the Craft* [online]. 2nd ed. United States of America: SAGE Publications, Inc. [Accessed 19 March 2021].
- Hafeez, M., Ajmal, F. & Kazmi, Q.A. (2021). Challenges faced by the teachers and students in online learning. *International Journal of Innovation, Creativity and Change* [online]. 15 (2), pp. 325-346. [Accessed 03 December 2021].
- Heng, B.H., Leng, L. & Ling, L.S. (2020). Differentiated instruction in our mathematics classrooms. In: Lee, N.H., Seto, C., Rahim, R.A. & Tan L.S., ed. (2020) *Mathematics Teaching in Singapore: Theory Informed Practices* [online]. Singapore: World Scientific, 263-277. [Accessed 30 July 2021].
- Herwin, H., Hastomo, A., Saptono, B., Ardiansyah, A.R. & Wibowo, S.E. (2021). How elementary school teachers organized online learning during the COVID-19 pandemic? *World Journal on Educational Technology: Current Issues* [online]. 13 (3), pp. 437-449. [Accessed 20 December 2021].
- Holley, K.A. & Harris, M.S. (2019). *The Qualitative Dissertation in Education: A Guide for Integrating Research and Practice* [online]. London: Routledge. [Accessed 23 April 2021].
- Hortal, K.J.A. (2021) Instructional material in strengthening differentiated instruction in teaching mathematics. *EPRA International Journal of Multidisciplinary Research* [online]. 7 (7), pp. 118-123. [Accessed 24 July 2021].
- Howard, S.K., Tondeur, J., Siddiq, F. & Scherer, R. (2021). Ready, set, go! profiling teachers' readiness for online teaching in secondary education. *Technology, Pedagogy and Education* [online]. 30 (1), pp. 141-158. [Accessed 28 December 2021].
- Ibrahim, N. (2018). Education ministry begins issuing tablets to students. *The Edition*[online]. 18 June. Available from: <https://edition.mv/tablet/6255>
- Idrus, F., Asri, N. A. Z., & Baharom, N. N. (2021). Has Differentiated Instruction Gone 'Awry' in Online Teaching and Learning? *Journal of Language Teaching and Research*, 12(3), 501-510
- Ismail, S. (2019). Impact of differentiated instruction on the writing process of ESL learners. *ELF Annual Research Journal* [online]., pp. 130-153. [Accessed 27 October 2021].

- Johnson, R.B. & Christensen, L. (2014). *Educational Research: Quantitative, Qualitative and Mixed Approaches* [online]. 5th ed. Thousand Oaks, CA: SAGE Publications, Inc. [Accessed 23 April 2021].
- Koehler, M.J, Mishra, P., Kereluik, K., Shin, T.S. & Graham, C.R. (2014). The technological pedagogical content knowledge framework. In: Spector, J.M., Merrill, M.D., Elen, J. & Bishop, M.J., 4<sup>th</sup> ed. (2014) *Handbook of Research on Educational Communications and Technology*[online]. New York: Springer, pp. 101-111. [Accessed 01 January 2022].
- Koehler, M.J. & Mishra, P. (2005). What happens when teachers design educational technology? the development of technological pedagogical content knowledge. *Journal of Educational Computing Research* [online]. 32 (2), pp. 131-152. [Accessed 28 December 2021].
- Letzel, V., Pozas, M. & Schneider, C. (2020). 'It's all about the attitudes!' - Introducing a scale to assess teachers' attitudes towards the practice of differentiated instruction. *International Journal of Inclusive Education* [online]., pp. 1-15. [Accessed 27 July 2021].
- Lynch, S.D., Hunt, J.H. & Lewis, K.E. (2018). Productive struggle for all: differentiated instruction. *Mathematics Teaching in the Middle School* [online]. 23 (4), pp. 195-201. [Accessed 23 July 2021].
- Magableh, I.S.I. & Abdullah, A. (2020). Effectiveness of differentiated instruction on primary school students' English reading comprehension achievement. *International Journal of Learning, Teaching and Educational Research* [online]. 19 (3), pp. 20-35. [Accessed 06 November 2021].
- Martin, F., Sun, T. & Westine, C.D. (2020). A systematic review of research on online teaching and learning from 2009 to 2018. *Computers and Education* [online]. 159, pp. 1-17. [Accessed 23 October 2021].
- Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education* [online]. 32 (1), pp. 3-24. [Accessed 15 June 2021].
- Millen, R.A., and Gable, R. (2016). New Era of Teaching, Learning and Technology: Teachers' Perceived Technological Pedagogical Content Knowledge and Self-Efficacy Towards Differentiated Instruction, *Annual Meeting of the New England Educational Research Organization*, Portsmouth, NH, April 2015. K-12 Education [online]. Available from: [https://scholarsarchive.jwu.edu/k12\\_ed/34](https://scholarsarchive.jwu.edu/k12_ed/34) [Accessed 28 July 2021].
- Ministry of Education. (2020). *Education Act* [online]. Maldives: Ministry of Education. (24/2020). Available from: [https://www.moe.gov.mv/assets/upload/Education\\_Act.pdf](https://www.moe.gov.mv/assets/upload/Education_Act.pdf) [Accessed 02 April 2021].

- Ministry of Education. (2019). *Education Sector Analysis – Maldives* [online]. Maldives: Ministry of Education. Available from: [https://support.moe.gov.mv/wp-content/uploads/2020/05/EDUCATION-SECTOR-ANALYSIS\\_ESA.pdf](https://support.moe.gov.mv/wp-content/uploads/2020/05/EDUCATION-SECTOR-ANALYSIS_ESA.pdf) [Accessed 03 December 2021].
- Ministry of Education and The United Nations Children’s Fund [UNICEF]. (2010). *Learner Centered Teaching and Learning – Quality Indicators – Child Friendly Baraabar Schools* [online]. Maldives: Ministry of Education and UNICEF. Available from: <http://docplayer.net/20739182-Learner-centered-teaching-and-learning-quality-indicators-child-friendly-baraabar-schools-maldives.html> [Accessed 03 December 2021].
- Moosa, V. & Shareefa, M. (2019). The impact of teachers' experience and qualification on efficacy, knowledge and implementation of differentiated instruction. *International Journal of Instruction* [online]. 12 (2), pp. 587-604. [Accessed 20 July 2021].
- Morgan, H. (2020). Best practices for implementing remote learning during a pandemic. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* [online]. 93 (3), pp. 135-141. [Accessed 09 December 2021].
- Moustakas, C. (1994). *Phenomenological Research Methods*. Thousand Oaks, CA: SAGE.
- National Institute of Education. (2014). *Pedagogy and Assessment Guide* [online]. Maldives: National Institute of Education. Available from: <https://www.nie.edu.mv/index.php/en/national-curriculum/pedagogy-and-assessment-guide/94-pedagogy-and-assessment-guide-pag/file> [Accessed 10 April 2021].
- National Institute of Education (2016). *The National Curriculum Framework* [online]. Maldives: National Institute of Education. Available from: <https://www.nie.edu.mv/index.php/en/national-curriculum/curriculum-framework> [Accessed 10 April 2021].
- National Institute of Education (2018). *Inclusive Education Guidelines and Adaptations to Support the Implementation of the National Curriculum* [online]. Maldives: National Institute of Education. Available from: <https://www.nie.edu.mv/index.php/en/resources/inclusive-education/documents/302-inclusive-education-guidelines-and-adaptations-to-support-the-implementation-of-the-national-curriculum/file> [Accessed 23 October 2021].
- Nasir, N.A.M. & Aziz, A.A. (2020). Implementing student-centered collaborative learning when teaching productive skills in an ESL primary



- classroom. *International Journal of Publication and Social Studies* [online]. 5 (1), pp. 44-54. [Accessed 26 December 2021].
- Nartiningrum, N. & Nugroho, A. (2021). English teachers' perspectives on challenges, suggestions, and materials of online teaching amidst the global pandemic. *Indonesian Journal of English Education* [online]. 8 (1), pp. 108-126. [Accessed 03 January 2022].
- Nghia, T.L.H. (2015). Vietnamese students' perceptions of English teacher qualities: implications for teacher professional development. *International Journal of Academic Research in Education and Review* [online]. 3 (1), pp. 7-19. [Accessed 18 April 2021].
- Nishan, F. (2018). Challenges of Regular Teachers in Implementing Inclusive Education in Schools of Maldives. *International Journal of Education, Psychology and Counseling*, 3(10), 88-102.
- Prast, E.J., Van de Weijer-Bergsma, E., Kroesbergen, E.H. & Van Luit, J.E.H. (2018). Differentiated instruction in primary mathematics: effects of teacher professional development on student development. *Learning and Instruction* [online]. 54, pp. 22-34. [Accessed 11 June 2021].
- Putri, N.R. & Sari, F.M. (2021). Investigating English teaching strategies to reduce online teaching obstacles in the secondary school. *Journal of English Language Teaching and Learning* [online]. 2 (1), pp. 23-31. [Accessed 23 December 2021].
- Rahman, M.M.U. (2020). Challenges and solutions of teaching English as a foreign language online during a global pandemic like covid-19: Saudi EFL teachers' perspectives. *Journal of Southwest Jiaotong University* [online]. 55 (6), pp. 1-9. [Accessed 02 January 2022].
- Rahman, R.A. (2018). Differentiated instruction: is it in place?. *International Journal of Social Research and Innovation* [online]. 2 (1), pp. 18-33. [Accessed 10 November 2021].
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students* [online]. 5th ed. England: Pearson Education Limited. [Accessed 23 April 2021].
- Schmid, M., Brianza, E. & Petko, D. (2021). Self-reported technological pedagogical content knowledge (TPACK) of pre-service teachers in relation to digital technology use in lesson plans. *Computers in Human Behavior* [online]. 115, pp. 1-12. [Accessed 20 December 2021].
- Shareefa, M. (2021). Using differentiated instruction in multigrade classes: a case of a small school. *Asia Pacific Journal of Education* [online]. 41 (1), pp. 167-181. [Accessed 25 November 2021].

- Shiuna, M. & Sodiq, A. (2013). Improving education in the Maldives: stakeholder perspectives on the Maldivian education. *International Journal of Small Economies* [online]. 4 (1), pp. 23-38. [Accessed 18 October 2021].
- Shulman, L.S. (1986). Those who understand growth in teaching. *Educational Researcher* [online]. 15 (2), pp. 4-14. [Accessed 23 July 2021].
- Small, M. (2012). *Good Questions: Great Ways to Differentiate Mathematics Instruction* [online]. 2nd ed. New York: Teachers College Press. [Accessed 13 June 2021].
- Suprayogi, M.N., Valcke, M. & Godwin, R. (2017). Teachers and their implementation of differentiated instruction in the classroom. *Teaching and Teacher Education* [online]. 67, pp. 291-301. [Accessed 26 July 2021].
- Tomlinson, C.A. (2017). *How to Differentiate Instruction in Academically Diverse Classrooms* [online]. 3rd ed. Alexandria, VA: Association for Supervision and Curriculum Development. [Accessed 11 June 2021].
- Tomlinson, C.A. & Strickland, C.A. (2005). *Differentiation in Practice: A Resource Guide for Differentiating Curriculum* [online]. Alexandria, VA: Association for Supervision and Curriculum Development. [Accessed 12 June 2021].
- Vygotsky, L.S. (1978). *Mind in Society: The Development of Higher Psychological Processes* [online]. Cambridge, MA: Harvard University Press. [Accessed 11 June 2021].

## **Relationship between effective school correlates and student attainment in secondary school completion examinations: the case of a single locality**

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### **Abstract**

The study is directed by the correlates of an effective school which includes a clear vision, frequent monitoring of student's progress, safe and orderly environment, instructional leadership, protect instructional time, the high expectation for success and positive home-school relationship. This study aims to determine the relationship between school effectiveness and the academic performance of lower secondary students in a selected locality from Maldives. The study was conducted using a quantitative research approach. An online survey questionnaire was used to collect data on the existence of effective school correlations in the selected locality. Data were obtained from 270 teachers working in government schools of the target population. For the analysis of data, both descriptive and inferential statistics were used. From the data analysis of research question 1, it was found, out of seven effective school correlates instructional leadership is least affirmed, and home school relationship is the highest affirmed correlate perceived by teachers of Hulhumalé schools. Furthermore, it revealed, except home school relation and clear mission, there is a difference in the existence of effective school correlates among schools. In addition, data analysis of research question 3 indicated that there is a moderate positive relationship between mean school effectiveness and students' achievement in Secondary school completion exams. Moreover, the *high expectation for success* and *a safe and orderly environment* are the most contributing effective school correlates for pupils' attainment. This research concluded that the perception of the participants is consistent with the literature.

**Keywords:** educational attainment, effective school correlates, school effectiveness

## 1. INTRODUCTION

### 1.1 Background of the study

Maldives educational system has existed for centuries. Edhuruge, Madharsa, or Makthab were the oldest known schools in the country. The primary emphasis of these schools was on teaching the Holy Quran, essential reading and writing in Dhivehi language (Maldives' mother tongue), and basic arithmetic. These schools led to the achievement of many educational goals, such as the high rate of literacy and the maintenance of national culture and tradition (Ali, 2017).

The first government school of the Maldives was established in 1927 in Malé (Ministry of Education, 2008). The education then expanded all over the country to provide primary education by creating a Makthab on each island. Nonetheless, the subjects taught by these schools were not adequate to satisfy the nation's development needs. Thus in 1960, the western schooling system was implemented. This western method of schooling followed the British educational system and English as a medium of instruction (Ali, 2017).

Education was initially offered cooperatively by the government, community, and the private sector. However, all community schools were upgraded to government schools in 2005 to expand the education system. Therefore, education is now officially funded by the government and private sector only.

The Maldives government has established numerous educational policies to raise students' achievement in lower secondary school completion examinations since the creation of English medium schools in the early 1960s (Shiuna & Sodiq, 2013). At the secondary level, the curriculum follows Cambridge and Edexcel syllabus for most of the subjects except Dhivehi language, Islamic studies, and Quran.

In 2009 the Ministry of Education (MoE) aimed to improve the performance of students in secondary school completion examination (SSCE) up to 60 per cent by the end of 2013. For this reason, goals were determined to reach 60 per cent of the passes in five or more subjects (Ministry of Education, 2009). Although the MoE set a target for the SSCE, the percentage of students passing in 5 or more subjects was not maintained. The overall pass percentage did increase from 2011 to 2016. However, the result was decreased slightly in 2017 due to several issues (Ministry of Education, 2019a).

School issues need to be resolved to build a supportive, positive environment where students can engage in learning to improve their performance. (Bosede Alokun et al., 2014). Stakeholders agree that one of the significant issues in school is the ineffectiveness towards developing a successful individual. Johnson (2016) claimed that successful schools follow seven characteristics, known as effective school correlates. Those correlates include clear mission, frequent monitoring, high expectations, home school relations, instructional leadership, protect instructional time and a safe and orderly environment.

In response to the concerns regarding poor performance in SSCE, the MoE implemented a policy to raise the pass percentage of the students in 5 or more subjects to 60 per cent (Ministry of Education, 2010). The MoE announced that this target was achieved in 2009. However, Shafeeu (2019b), claimed that the target mentioned above had not been achieved yet. In addition to this, the current government has targeted to increase the percentage of students passing in 5 or more subjects in SSCE to 95% by the end of 2023 (Ministry of Education, 2019b). The above-mentioned targets can only be achieved by identifying factors that could contribute to students' achievement in the SSCE. Brookover (1982); Edmonds (1979); Lezotte and Snyder (2011) claimed that students' attainment is highly associated with effective school characteristics. Therefore, this study is aimed to investigate the contribution of effective school correlates towards pupils' attainment in schools from selected locality in Maldives. Towards this end, the study answered the following research questions.

1. What is the level of existence of effective school correlates in Hulhumalé schools?
2. Is there any difference in the existence of effective school correlates in Hulhumalé schools?
3. What is the relationship between the existence of effective school correlates and students' attainment at secondary school completion examination?
4. What is the most contributing effective school correlate for students' attainment?

This study will provide useful information to school administration. The data of this research could be used to improve management strategies, teaching, and learning to enhance academic performance. By identifying the level to which schools are applying the seven correlations of effective schools and how this affects student success, the research may promote strategic planning among school administrators. Schools that do not follow effective school features could

obtain concepts that might improve the academic success of their students. Lower secondary school students also benefit from the research as the results demonstrate how students engage with stakeholders of the school environment at effective schools.

## **2. EFFECTIVE SCHOOL LITERATURE AND CONNECTION WITH STUDENT ATTAINMENT**

The effective school has been defined in as many ways as there are published works by scholars and authors regarding the school effectiveness. Scheerens (2000) refers to school effectiveness as the outcome of the school, which is ultimately determined by the average achievement of the students at the end of formal schooling. According to Sammons and Bakkum (2011), the effective school has defined as *“one in which students progress further than might be expected from consideration of its intake. An effective school thus adds extra value to its students’ outcomes, in comparison with other schools serving similar intakes”*.

The distinctive characteristics of most effective schools are correlated with the success of the students. These attributes eventually became recognised as Effective School Correlates among researchers (Lezotte, 2001). The vast majority of researchers have identified the following characteristics to be involved in an effective school.

### **2.1 Clear and Focused Mission**

A mission statement summarises the goal to assist staff to operate the school and to direct systematic progress. Boerema (2006), states that the mission of school express a set of standards that address the fundamental concern regarding the intent of education and how the various programs should be conducted within the school. He further clarified, school mission provides vital guidance to teachers and students. Therefore, school mission must be clear in order to achieve the primary goal of the school. The effective school has a clearly defined mission through which, the staff has an awareness of the schools’ goals, objectives, assessment processes and accountability among them. All the staff takes responsibility and accountability for the advancement and fulfilment of the learning goal for all students (Lezotte, 2001).

### **2.2 Frequent Monitoring of Student Progress**

Monitoring the development of each individual of the class is essential. According to Lezotte (1993), correctly applied, the formative assessments provide guidance about the students’ success such that instructors can concentrate

the teaching. Instructors can utilise the information from these formative assessments to evaluate students' understanding of concepts and to determine content challenges in developing teaching strategies (DuFour & DuFour, 2009). The academic progress of effective schools is measured regularly over time through several assessment procedures. The outcomes of these evaluations are used to enhance the academic and behavioural performance of the individual students. (Lezotte, 2001).

### **2.3 Safe and Orderly Environment**

In an effective school, there is an orderly environment that is conducive for learning and free from any harm that can hinder learning and teaching. The successful school climate is not stressful and is favourable to learning and teaching (Lezotte, 1993). A safe and organised school atmosphere ensures a culture where staff and students feel free to teach and learn, by protecting the school from any threats. Such an environment helps students and teachers support each other and figure out what is best for everyone (Gustin, 2018). Lezotte (1993), explains that the school atmosphere should be protected from physical and emotional harm to maximise students' performance.

### **2.4 Instructional Leadership**

As a leader, the principal should define a clear vision and mission for the school. Moreover, they will have an excellent capability to relate the activities and strategies with the academic mission of the school. Consequently, instructional leaders are not only focused on leading school movements. They also take responsibility for management roles, including supervising, controlling and coordinating various events. Therefore principals should have enough competencies to manage instructional affairs of school climate (Hallinger, 2005). Casavant and Cherkowski (2001), described principle who practice instructional leadership as an *effective principal*, who had strong views about the instructional process that takes place in the school. This claim was also formerly confirmed by and Smith & Andrews (1989). According to Smith & Andrews (1989), the principals who are productive in their professional job have four essential aspects of instructional leadership. They are (1) provider of resources; (2) instructional source; (3) communicator and (4) present visibly.

The instructional leaders of effective schools focussed mainly on enhancing the academic performance of students. Lezotte (2001), discovered that the principal performs as an instructional leader communicates the primary goal of school efficiently and persistently to all stakeholders in order to improve students' achievement.

## **2.5 Protect instructional time (Opportunity to Learn and Student's Time on Task)**

It is essential to know what to teach and to provide enough time to teach for effective instruction. According to Lezotte (2001), students are more likely to learn the most things when they spend time on. Teachers of successful school allocate a massive amount of instructional time for teaching essential contents of the curricular. During a significant portion of this period, students participate actively in a full-scale, teacher-directed, organised learning event (Lezotte, 1993). The time spent by students participating in real learning experiences is widely perceived to be the most important in terms of their academic success.

## **2.6 High Expectation for Students Success**

According to Lezotte (1993), expectations for students are linked with the teacher's belief and attitude in the learning environment. Teachers need to expect that all students can attain their learning goal through various classroom activities. He also instructs educators how they should begin to deliver the lesson and implement various strategies to achieve the outcome of students. Sammons, Hillman and Mortimore (1995) also agree that high expectations for every student are essential in school education. Research conducted by Nyagosia (2011), found that if teachers do not have any expectation for student's academic achievement, they will always move toward failure.

## **2.7 Positive Home–School Relation**

One of the essential traits of an effective school is building trust and communication within the school and the parents. Research shows that, if parents spend more time with their children on cognitive learning tasks, such as reading with them, assisting with homework, talking about school experiences may increase children's academic performance (Brookover, 1982). As parents take an interest in school activities children can realise how much parents value their education. It would automatically inspire students to get serious in their studies, and they achieve positive results (Goodman, 1997). According to Lezotte (2001), parents play a vital role in students education. Hence school administrators should encourage the teachers to develop a healthy relationship with their parent. Most importantly, it is essential to communicate with the parent effectively and update the student's classroom performance. This indicates that schools can only accomplish their mission by involving parents in various activities.



## **2.9 Relationship between effective school correlates on pupil's attainment.**

Several authors have claimed that the existence of the characteristics mentioned above in the school will improve the performance of the students. In response to that, the school should have a clear vision and mission to guide every activity of the school to achieve its final objective. Moreover, the institution requires active instructional leaders to convey the goal of the school (Nyagosia, 2011). Hence, the existence of clear vision and mission with effective instructional leadership in school contribute to improving students' learning result (Modiba, 2001). One of the reasons why the principals' instructional role is related to the students' achievement is due to their responsibility in promoting the professional growth of teachers (Kiptum, 2018). When teachers have sufficient instructional skills with clear teaching goals to satisfy the needs of the students, it will expand their motivation. As a result, students participate actively in the lesson. Thus, in the process, the academic success of students increases.

Researches have described several factors that are strongly related to the academic performance and social wellbeing of students within the school environment. Numerous authors have identified four critical domains that must present in a school setting: a sense of physical security, reliable standards for both academic performance and behaviour, a sense of interaction for both school and society at large and high levels of encouragement from the administration for school staff and students for both academic success and developing social skills. (Gottfredson et al., 2005). Besides, Marshall (2004) believes that school safety is related to academic performance, whereby students living in secure school environments have been identified to be performing better academically than those studying in stressful environments.

Many studies over the years have proved that parents play a vital role in students' education. Home-schooling relation is an important aspect of a student's achievement. Student achievement Increases as parents contribute and involve in their children's education (Henderson & Berla, 1994).

Kirk & Jones (2004), highlights, effective schools are an integral aspect of the educational landscape. The introduction of effective school correlates a significant influence on the educational system, due that students are performing to the highest level of expectation. Those school which follows seven correlates of the effective schools performs better and make a difference in their achievement (Lezotte, 2001).

3. METHODOLOY

This is a correlational study comprise of quantitative data. Effective school correlates are the independent variables, and students’ attainment in the SSCE is the dependent variable. Figure 3.1 below shows the conceptual framework of this study.

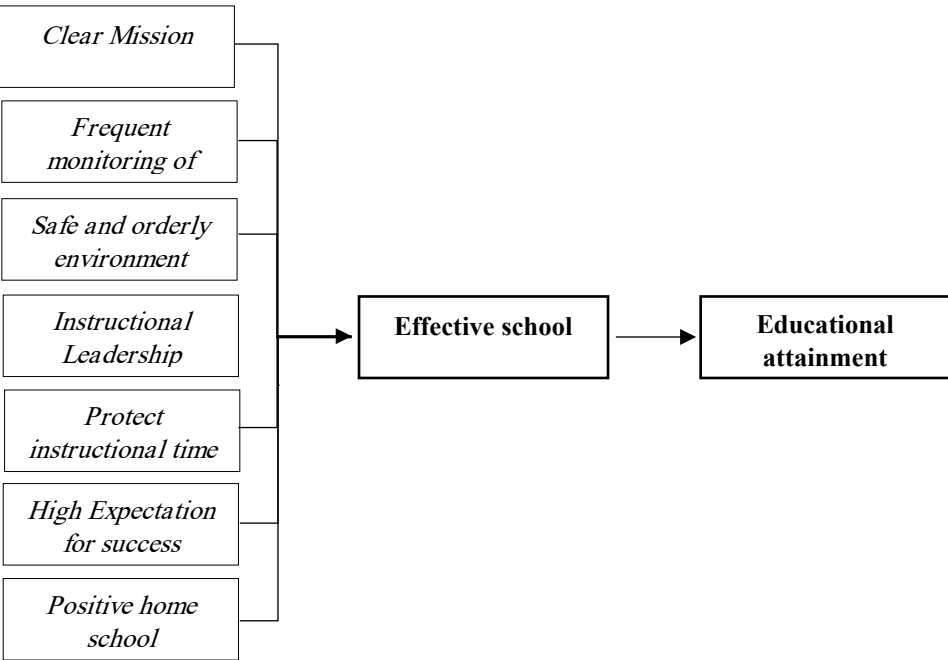


Figure 3.1 *Cconceptual framework*

This is a population study that involves three government schools in the selected locality in Maldives. Primary data was collected from schools by a survey questionnaire. At present, there are a total of 396 teachers working in these three schools. Secondary data involves student’s attainment in the secondary school completion examination. The survey questionnaire is adapted from the work of Shafeeu (2019a) which was validated in the Maldivian context. However, a pilot study was conducted to check the reliability of the survey questionnaire in the current school context. The results of the pilot study indicated that the survey questionnaire is a suitable tool to conduct research in the context. The Cronbach alpha coefficients obtained for each of the effective school correlate is above 0.7, which indicates that this tool is reliable to conduct the survey. Result of this test is shown in table 3.1.

*Table 3.1*

Results of reliability test (from the pilot study)

Effective school correlate	Cronbach alpha coefficient
Clear Vision	0.74
Frequent monitoring of students' progress	0.70
Safe and orderly environment	0.76
Instructional Leadership	0.76
Protect instructional time	0.75
High expectation for success	0.70
Positive home-school relationship	0.81

This study used version 24.0 of the Statistical Package for Social Sciences (SPSS) to analyse the data. The survey results of effective school characteristics were inserted into SPSS by defining 1 as Strongly Disagree, 2 as Disagree, 3 as Neutral, 4 as Agree and 5 as Strongly Agree. As this is a population study, it is decided not to use confidence interval and significance testing in this study.

#### 4. Results

Teacher response to the survey questionnaire indicated that 57.3 per cent of the teachers perceived that their school is effective in terms of the effective school correlates identified by Edmonds (1979) and Lezotte & Snyder (2011).

Figure 4.1, shown below indicates the teachers' affirmation for the existence of individual effective school correlated in their school.

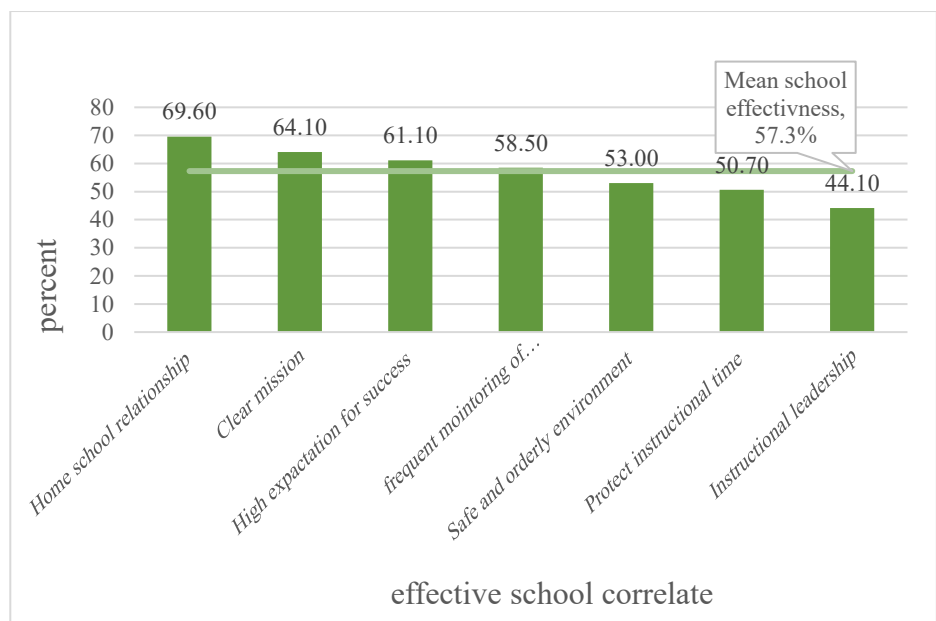


Figure 4.1 Teachers affirmation on the existence of effective school correlates

Out of the seven effective school correlates, teachers rated, safe and orderly environment (53%), protect instructional time (50.7%) and instructional leadership (44.1%) lower than the mean school effectiveness. The highest affirmed effective school correlated perceived by teachers’ is *home school relationship*. Cohen’s d effect size was calculated to check whether there is any difference in the teacher’s perception of the existence of effective school correlates and mean school effectiveness based on their gender. The result of Cohen’s d effect size indicated that there is a small difference in teachers’ perception on the existence of effective school based on their gender.

Table 4.1

Teachers’ perception on the existence of effective school correlates based on their gender

Effective School Correlates	Female		Male		Cohen’s <i>d</i>
	M	SD	M	SD	
Clear mission	3.94	0.59	4.10	0.62	0.26
frequent monitoring of students’ progress	3.84	0.60	3.96	0.70	0.18
Safe and orderly environment	3.73	0.59	3.85	0.69	0.19
Instructional leadership	3.56	0.67	3.72	0.72	0.23

Protect instructional time	3.70	0.58	3.71	0.72	0.02
High expectations for success	3.80	0.54	3.97	0.62	0.29
Home school relationship	3.97	0.55	4.10	0.54	0.24
Mean school effectiveness	3.79	0.35	3.91	0.45	0.30

Cohen's *d* for most of the individual correlates also indicated a similar pattern. However, there is no difference in teacher's perception on the existence of effective school correlate; *protect instructional time* based on their gender. Further tests by using ANOVA were carried out to check whether the teacher's qualification has any roles on how teachers perceived effective school correlates in their school. The result of this ANOVA test is given below.

Table 4.2

Teachers' perception on the existence of effective school correlates based on their qualification.

Effective School Correlates		Sum of Squares	df	F	Eta <sup>2</sup>
Clear mission	Between Groups	1.29	3	1.19	0.01
	Within Groups	95.71	266		
Freq. monitoring of students' progress	Between Groups	0.58	3	0.49	0.01
	Within Groups	105.43	266		
Safe and orderly environment	Between Groups	0.30	3	0.26	0.00
	Within Groups	101.31	266		
Instructional leadership	Between Groups	1.30	3	0.92	0.01
	Within Groups	125.47	266		
Protect instructional time	Between Groups	1.86	3	1.63	0.02
	Within Groups	101.26	266		
High expectation for success	Between Groups	3.32	3	3.55	0.04

	<i>Within Groups</i>	82.85	266		
Home school relationship	<i>Between Groups</i>	1.39	3	1.55	0.02
	<i>Within Groups</i>	79.09	266		
Mean school effectiveness	<i>Between Groups</i>	0.06	3	0.13	0.00
	<i>Within Groups</i>	39.55	266		

The critical value  $F$  when the degree of freedom 3 and 266 needs to be is 2.63. The only effective school correlate that has an  $F$  value greater than 2.63 is high expectation for success. However, the result of the Eta squared effect size indicated that this difference is not meaningful  $F(2,266) = 3.55$ ,  $\eta^2 = 0.04$ . This indicates that there is no difference in teachers' perception on the existence of effective school correlates based on their qualification. This is also true for the mean school effectiveness perceived by the teachers. The effect size calculated by using the Eta squared also indicated no difference in teachers' perception based on their qualification.

The analysis was also conducted to check whether there is any difference on the existence of effective school correlates based on principal's gender. Result of Cohen's  $d$  indicated that there is a meaningful difference on the existence of effective school correlates based on principal gender. See table 4.3 for the results of the Cohen's  $d$ .

Table 4.3

The existence of effective school correlates based on principal gender.

Effective School Correlates	Female		Male		Cohen's $d$
	Mean	SD	Mean	SD	
Clear mission	4.09	0.48	4.01	0.32	0.19
frequent monitoring of students' progress	4.07	0.52	3.77	0.65	0.50
Safe and orderly environment	4.02	0.47	3.64	0.64	0.69
Instructional leadership	3.82	0.58	3.50	0.71	0.50
Protect instructional time	3.88	0.50	3.61	0.65	0.45
High expectations for success	4.09	0.51	3.73	0.56	0.67
Home school relationship	4.09	0.46	3.95	0.58	0.27
Mean school effectiveness	4.01	0.32	3.95	0.58	0.12

Result indicated in the above table shows that schools that are managed by female principals are more likely to be effective in terms of the existence of effective school correlates considered in this study. The most significant difference is seen between the effective school correlate, *safe and orderly environment*. This suggests that schools that are managed by female principals are safer than schools managed by male principals.

Pearson correlation analysis conducted teacher experience and principal experience with the effective school correlates indicated that there is no meaningful relationship for the existence of effective school correlates due to both teacher and principal experience. However, there is a weak relationship with the existence of effective school correlate protect instructional time with the principal experience ( $r = 0.26$ ). This could be an indication that more experienced principals do more work to protect instructional time in their school. In addition to this, it was also found that principals experience is negatively correlated with the effective school correlate, *high expectation for student's success*. Result of the Pearson correlation analysis is shown in table 4.4.

Table 4.4

Correlation between principal and teacher experience with effective school correlates

Effective School Correlates	Pearson Correlation ( $r$ )	
	<i>Principal experience</i>	<i>Teacher experience</i>
Clear mission	-0.11	0.03
frequent monitoring of	-0.04	-0.06
Safe and orderly environment	0.01	-0.02
Instructional leadership	-0.04	-0.09
Protect instructional time	0.26	0.15
High expectations for success	-0.22	-0.20
Home school relationship	0.02	0.04
Mean school effectiveness	-0.03	-0.04

Analysis by using One-Way ANOVA was carried out to check whether there is any difference in the existence of effective school correlates in Hulhumalé schools. Results indicated that except home school relation and clear mission, there is a difference in the existence of effective school correlates. However, the effect size calculated by using Eta squared indicated that this difference is small

(effect size is less than 0.2). The result of this ANOVA test and Eta squared is given below table 4.5.

Table 4.5

Result of ANOVA and Eta squared to check whether there is any difference among schools in the existence of effective school correlates

Effective School Correlates		Sum of Squares	df	F	$\eta^2$
Clear mission	<i>Between Groups</i>	2.24	2	3.15	0.02
	<i>Within Groups</i>	94.76	267		
frequent monitoring of stud. progress	<i>Between Groups</i>	4.71	2	6.21	0.04
	<i>Within Groups</i>	101.29	267		
Safe and orderly environment	<i>Between Groups</i>	10.59	2	15.53	0.10
	<i>Within Groups</i>	91.02	267		
Instructional leadership	<i>Between Groups</i>	6.29	2	6.97	0.05
	<i>Within Groups</i>	120.48	267		
Protect instructional time	<i>Between Groups</i>	17.85	2	27.94	0.17
	<i>Within Groups</i>	85.27	267		
High expectations for success	<i>Between Groups</i>	8.65	2	14.90	0.10
	<i>Within Groups</i>	77.51	267		
Home school relationship	<i>Between Groups</i>	1.59	2	2.69	0.02
	<i>Within Groups</i>	78.89	267		
Mean school effectiveness	<i>Between Groups</i>	4.71	2	18.01	0.12
	<i>Within Groups</i>	34.91	267		



Further analysis was conducted to assess the relationship between school effectiveness and students attainment. The result of the Pearson correlation test indicated that there is a moderate positive relationship between mean school effectiveness and pupils' attainment  $r(204) = .35$ ,  $r^2 = 0.12$ . The value of the  $r^2$  indicates that mean school effectiveness could explain nearly 12 per cent variance in pupils' attainment in the secondary school completion examination.

Table 4.6

Pearson correlation between mean school effectiveness and pupils' attainment

Variable	<i>N</i>	<i>r</i>	<i>r</i> <sup>2</sup>
mean school effectiveness	206	.35	0.12

The above correlation test indicated that there is a moderate positive association between teachers report of school effectiveness and students' attainment in the secondary school completion examination. Therefore, multiple linear regression is conducted to find out the most contributing effective school correlate for improving pupils' attainment.

Multiple linear regression is carried out by using students' attainment in secondary school completion examination as the dependent variable and teachers report of effective school correlates as the independent variables. Result of the linear regression model summary is shown in Table 4.7.

Table 4.7

Linear regression model summary

Variables	<i>R</i>	<i>R</i> <sup>2</sup>	<i>Adjusted R</i> <sup>2</sup>
Dependent variable: <i>pupils' attainment</i>			
Independent variable: <i>effective school correlates</i>	4.22	.18	.15

Result of the linear regression indicated that seven effective school correlates considered in the regression model could explain approximately 18 per cent variance in pupils' attainment. The result of the model coefficients ( $\beta$ ) suggested that *high expectation for success* is the most contributing variable for pupils' attainment ( $\beta = 3.33$ ) followed by the effective school correlate *safe and orderly environment* ( $\beta = 2.18$ ). This indicates that every unit increase in the effective

school correlates *high expectation for success*; there is a possibility of improving students by over 3 times. Moreover, every unit increase in a *safe and orderly environment* could also increase pupils' attainment by over 2 times. Regression  $\beta$  coefficients are shown in Table 4.8.

Table 4.8

Linear regression model summary

Model <sup>a</sup>	Unstandardised $\beta$ Coefficient	Std. Error
Constant	4.22	.18
Clear mission	.871	.89
Monitoring of student progress	1.23	.90
Safe and orderly environment	2.18	1.13
Instructional leadership	1.21	.956
Protect instructional time	-.55	1.18
High expectation for success	3.33	.99
Home school relationship	-1.07	1.05

a. Dependent Variable: Secondary school completion examination result

## 5. DISCUSSION AND CONCLUSION

### 5.1 Teachers Perception of School Effectiveness

The first research question sought to identify the level of existence of effective school correlates in schools of Hulhumalé. From the finding, it was evident with the mean of 44.1 per cent of participants perceived “*instructional leadership*” as the least affirmed correlate by the teachers. From the literature, it was evident when the principals do not have enough instructional competencies; it would be difficult for them to practice instructional leadership skills (Smith & Andrews, 1989). One of the factors for poor instructional leadership can be due to the principal's lack of knowledge and skills to demonstrate instructional leadership. When the principal does not have enough competencies, it would be difficult for the principal to demonstrate important instructional activities such as leading and managing activities for the teachers. As a result, there could be no collaboration among principal and teachers, resulting in reducing collegiality among the instructional staff of the school. According to Curry (2008), when the principal is not able to practice collegiality and collaboration among school staff, it can have

a negative impact on school improvement. Ultimately this can have a negative effect on students' academic achievement.

From the findings of research question 1, it is also evident that 50.7 per cent of teachers perceived “*protect instructional time*” as the second least effective correlate in their schools. The reasons behind this might be teachers, and students get frequent interruptions in classroom teaching time. In the schools of Maldives, it is very common to give announcements about school's extra co-curricular activities within the session periods. Due to this, teachers have to stop teaching and permit students to listen to such statements during the lesson. As a consequence, students get disrupted and forget the teacher's instructions regarding the lesson. Furthermore, the lack of resources or unresolved problems in the classroom, such as failing to maintain classroom projectors and computer cables, could also affect the instructional time. This is a very critical concern because research has shown that providing opportunities to learn and to protect instructional time are essential components to foster students' achievements (Danielson, 2007). According to Marzano, Waters and McNulty (2005), protecting instructional time is one of the vital characteristics of a school. Thus, protecting instructional time is essential to prevent student's diversion from classroom activities. This could have a positive effect on students' academic performance (Marzano, 2001).

The existence of effective school correlates “*safe and orderly environment*” has been identified below mean with 53 per cent among the teachers. Literature has proven that in order to create a healthy and organised atmosphere, the learners should be free from physical and mental harm. Thus, establishing programs that teach self-discipline and responsibility to the students can minimise problematic behaviours (Lezotte, 2001). Nowadays bullying in classrooms is a widespread issue impacting the whole educational system of the Maldives. MoE underlines that one in every four children are bullied in Maldives schools. Additionally, it has been recognised that school-based bullying affects students' mental and physical health (Miolene, 2019). Hence, this might be one of the existing problems which hinder to provide a healthy learning environment for students.

The highest affirmed effective school correlate perceived by teachers' is the *home school relationship* with mean of 69.6 per cent. In a school setting, there might be a positive relationship between teachers and parents. Consequently, parents would be encouraged to engage in learning events of students. They could also express enthusiasm for students' education. This would enable educators to

communicate with their parents regarding the strengths and shortcomings of the pupil. As a result, both parents and stakeholders of the school will have ample understanding of the importance of creating the home-school relationship for the student's progress. Advantageously, this correlate has revealed a strong consensus between the participants, as a positive relationship between stakeholders of the school and parents is an essential factor that facilitates student achievement (Goodman, 1997).

Furthermore, calculations were done to identify whether teachers' gender has any link on their perception of the existence of the effective school correlates and mean school effectiveness. The results show that there is a slight difference in teachers' gender to all correlates of effective school except protective instructional time. Teachers' responses based on their qualification did not play any difference in the perception of the existence of the effective school correlates in the selected schools.

Moreover, the existence of effective school correlates based on principle gender was calculated. Teachers believe that schools managed by a female principle are more effective in terms of the existence of effective school correlates mentioned in this study. This might be that there is a positive relationship between teachers and female principals. Likewise, she could be more capable of handling students' discipline and monitor staffs efficiently. Research shows that female principals have stronger managerial behaviour than male (Naeemullah et al., 2010). Manning (2004), concluded that school heads who are female show more attention to the activities of both teachers and students. Besides, the female principal understands the teacher's expectation greater and appreciates their works in every circumstance better than male principals. Respondents stated that schools operated by female principles build a satisfying environment in the school. Because of this, it motivates teachers to work hard and deliver lessons effectively. As a result, students show a positive attitude in their learning.

Additionally, teachers who participated in this study recognised that the experience of both teacher and principal does not correlate with the presence of effective school correlates in their schools. However, a weak association has been identified in the existence of effective school correlate, to *protect instructional time* with the principal experience. It may be an implication that more experienced principals are undertaking extra importance to secure their school's instructional time. More experienced managers of the school may have the capability to sustain allocated time for teaching and learning by reducing

students' announcements and gathering for other activities during the instructional time. In addition, it has been noticed that principals' experience is negatively related to effective school correlate *high expectation for student's success*. This implies that as the principal is experienced, he or she is more careless and reduces their leadership skills.

## **5.2 Difference in the existence of effective school correlates.**

From the finding of research question 2, it was concluded that there is a small difference in effective school correlates existence among schools as perceived by teachers. However, this is not a meaningful difference. Respondents who participated in this study follows a similar curriculum in their school since 2015. Therefore, teachers plan their lessons identically to achieve the outcomes and competencies mentioned in the National Curriculum Framework (National Institute of Education, 2014). This demonstrates instructional pedagogy, and the evaluation of students would remain prevalent in all the schools. Besides, the same sorts of activities are carried out in the schools to fulfil their goal. The result of this study revealed that the main objective of all the schools is to improve student's academic achievement in order to make them a responsible individual of the community. A study conducted by Rosenholtz (1985), highlighted that improving students learning and action is the primary goal of the educational system. This might be a reason why all the schools are following effective school correlates at nearly the same level.

The MoE (2017), states there are few male teachers in the field of education compared to female. Numerous researches suggested that students can respond differently in the classroom, based on the behaviour of their teachers. Female teachers were reported to be more supportive, positive, and open toward students. Therefore, students feel free to ask questions and clarify their doubts from teachers who are female (Islahi, 2013). Most teachers who participated in this study are female. This indicates that the population of the female teacher is higher in the context of this research. Moreover, the majority of the respondents had a minimum qualification of a bachelor's degree. Also, their teaching experience is not less than two years. Teachers who have high qualifications with years of experience are expected to perform their teaching duties well and produce good academic grades. This was found valid by Kola and Sunday (2015). They highlighted that experienced teachers are more efficient and have a complex set of skills to deliver their lessons. As the teachers become effective, it has a positive impact on the academic achievement of the students. Thus, these could be the

primary factors that the presence of effective school correlates between schools in selected locality has not seen a significant disparity.

### **5.3 Relationship between school effectiveness and pupil's attainment.**

The result of correlation shows there is a moderate positive relationship between the existence of effective school correlates and students' attainment at secondary school completion examination. Accordingly, the findings are consistent with the findings of Brookover (1982); Edmonds (1979); Lezotte & Snyder (2011). Thus, it is concluded that the existence of effective school correlates and student's achievement is correlated in schools of Hulhumalé. Therefore, more importance should be paid to make schools effective in terms of the existence of effective school correlates identified in this study.

Hallinger and Murphy (1986), described that effective schools create a clearly defined mission to focus on improving students' performance. The Principal plays a significant role in formulating the aims of the school, seeking feedback from staff on mission formation and establishing targets in such a manner that they can be effectively converted into the priorities of the classroom. Principals always give high importance to develop excellent teachers in the school. Hence principals periodically observe teachers classroom instruction and provide meaningful and positive recommendations for teachers to help them develop their instructional methods (Lezotte, 2001). Moreover, this encourages teachers to monitor students' progress effectively. Teachers can utilise various methods of assessment to evaluate students. Efficient usage of evaluation data allows educators to recognise challenging areas of learning at the school level so that instructors can create strategies to resolve challenges (Hallinger & Murphy, 1986).

The school that follow all seven correlates of effective schools are identified as successful among various scholars. These schools provide a conducive environment for learning and teaching. As a result, students become more engaged in education, each and every individual feel accepted and throughout teachers respect their responses and appreciate them. Consequently, it leads students to be more successful academically and behaviourally (Brookover, 1982; Lezotte & Snyder, 2011).

#### **5.4 Identifying the most contributing effective school correlate for pupil's attainment.**

Results obtained by using teachers report indicated that existence of effective school correlates could explain nearly 18 per cent variance in pupils attainment and the effective school correlate *high expectation for success* and *safe and orderly environment* are the most contributing effective school correlates for pupils attainment.

This denotes that teachers believe that all the students should get equal opportunities in the learning environment. Additionally, it clarifies teachers that school management trusts that they can guide students to academic achievement. Literature also supports that schools are more successful when high expectations are part of a school culture where everyone gets support from one another. (Sammons et al., 1995). Previous researches proved that when teachers and administrators have high hopes for pupils, they can do better in both academically and behaviourally. Lezotte (2001), stated that an effective school has a positive atmosphere where everyone agrees and demonstrates that all students can achieve the maximum in the core curriculum of the school. Tomlinson (1992), reported that placing high expectations for student's performance lead to inspire students to study, and this encouragement results in better academic achievement. The fact that expectation for achievement was raised could mean that school management and staff in Hulhumalé schools had recognised the need to motivate students to strive toward obtaining their learning objectives. This was supported by Brookover (1982), who mentioned effective schools create a high level of motivation between teachers and students. Therefore, this research shows that administrators and teachers must believe that every student can accomplish what they learn in and outside of the school.

Students and teachers need to feel safe and secure in the school setting in order to learn and teach effectively in the classroom. One of the most important things teachers can do to encourage learning is to build an environment where students feel free to ask questions and contribute to discussions. According to Lezotte and Snyder (2011), School safety is related to students' academic performance. When students study in a positive school setting, they can perform better academically. Previously, various authors highlighted that the chaotic school environment leads the teacher to spend more time on correcting students' behaviour. Such type of climate also causes uncertainty for both teachers and pupils, meaning that emotional learning is misdirected, and social skills are not developed. As a result, it reduces teaching time and can impact on students' academic achievement

(Crosse et al., 2002). Nowadays, aggression and bullying are common in the school environment, where students feel unsafe to learn and perform activities. If these problems are not addressed appropriately, students can suffer mentally and physically, which could lead them to lose motivation in learning (Miolene, 2019). Lezotte (1993), explained that effective schools do not provide any threat and harm to both students and teachers. Efficient leaders always eliminate negativity from the school climate to help teachers to build positive relationship among each other. Teachers will be involved in talking about various issues of the school, and their ideas are often accepted to manage student's behavioural problem. Most of the participants of this study suggested that school management focuses on creating a conducive environment for teaching and learning.

### **5.5 Implications of the Findings**

From this research, it was evident that the existence of effective school correlates improve students academic achievement. In addition, it was also found that; safe and orderly environment; protect instructional time and instructional leadership; are lower than the mean school effectiveness. Due to this fact, the following are some implications that can be considered for improvement of students attainment in schools of the selected locality.

#### **The implication for policymakers**

The fundamental goal of the MoE is to improve students' academic achievement in SSCE. To achieve this goal, MoE should take great care to implement all seven correlates in schools of Maldives, as effective school correlates have a positive relationship on students attainment, MoE can verify at what level these characteristics are present in the school context and create monitoring methods to determine school effectiveness.

In this regard, MoE should provide and continue maintenance of enough facilities and resources for making schools more effective and raise student's achievement. Besides, it is very important to conduct an effective professional development program for principals and teacher. Therefore, MoE should revise and change the current professional development strategies which are mainly aimed for teachers. Also, the safe and orderly environment must be created for pupils' teachers and the entire school community. A safe, positive, and healthy learning atmosphere encourages pupils, teachers, and the education community to succeed in a meaningful way.



In evaluating schools, it should not only be based on the pupil's performance. However, the whole evaluation program can be carried out by including teachers and students wellbeing. As schools' value the wellbeing of educators and help ensure that teachers will succeed, they will foster healthier classroom environments and allow high-quality teaching that contributes to achievement for students. Teacher wellbeing is often related to student wellbeing, so improving teacher wellbeing is a significant first phase in school-wide wellbeing efforts to improve student wellbeing.

Most importantly, MoE should establish an appropriate compensation system in the education sector. It was known that many trained and hard-working teachers had left the profession. One of the main reasons highlighted was insufficient financial rewards a lack of opportunities for career development. Therefore, to retain qualified teachers who have the ability of adequate knowledge and experience in the school of Maldives, the MoE must reconsider the compensation system followed in the education sector.

### **The implication for school principals and teachers**

Principals and teachers take a huge responsibility to enhance the academic achievement of students. To promote all seven correlates teachers and administrators have to work together in a school environment. School heads should maintain a healthy learning environment that is conducive for learning and teaching. Principals should personally be involved in instructional supervision and provide the necessary support to the teachers. Besides, the principal could provide constant meaningful opportunities for teachers in the school environment to engage in continuous learning. Most importantly, school-based evaluation should be carried out base on the existence of the correlates identified in this study.

Furthermore, it is vital to develop a positive relationship with parents and teachers. School management should organise a parent-teacher meeting at the beginning and end of each term. When parents and teachers communicate about students' academic performance, it will help them to take education more seriously and strive hard to improve their academic results. Teachers must always address academic success with students as a means of progress tracking. Regarding school vision and mission, teachers must ensure that they periodically evaluate the expectations established by students at the beginning of the term and their results obtained at the end of the term.

### 5.6 Limitations

The following are acknowledged as a potential limitation of the study:

- (1) The study was conducted with teachers who work in only government schools of Hulhumalé. The findings cannot be applied to other Island schools of the Maldives due to the small number of participants.
- (2) Some teachers dropped out of the survey. (270 of 396 responded to the survey questionnaire).

### 5.7 Recommendation for further development of the research

This research was carried out in three government schools of a single selected locality. This is not enough number of school for a meaningful implementation to increase the efficiency of the schools of the whole Maldives. Similar research can be carried out in several schools across the Maldives to determine whether the effective school method is applied to all schools in the Maldives. In addition to a better understanding of the relationship between effective school correlates and school achievement in SSCE socio-economic background and other related factors for students, academic achievement should be taken into consideration.

### 5.8 Conclusion

This research found that seven correlates of effective school support students to enhance their academic performance. The finding of this study indicates that the highest and the least affirmed correlate perceived by the teacher is home school relation, and instructional leadership, respectively. It was also revealed that all the schools of Hulhumalé are following effective school correlates at nearly the same level. Moreover, it found a positive relationship between the existence of effective school correlates and students' attainment at secondary school completion examinations. Therefore, multiple linear regression was conducted to find out the most contributing effective school correlate for improving pupils' attainment. It indicated that *high expectation for success* and a *safe and orderly environment* are the most contributing effective school correlates for pupil's attainment.

## REFERENCES

- Ali, A. (2017). *Policy processes in the evolution of education in the Maldives : 1900–2015*. Malé, Maldives National University.

- Boerema, A. J. (2006). An analysis of private school mission statements. *Peabody Journal of Education*, 81(1), 180–202.  
[https://doi.org/10.1207/S15327930pje8101\\_8](https://doi.org/10.1207/S15327930pje8101_8)
- Bosede Alokun, F., Olufunke Ogunsanmi, J., Ibitola Makinde, V., & Oluwayemisi Fashina, B. (2014). Influence of Self-esteem on Academic Performance Among Secondary School Students. *Journal of Research & Method in Education (IOSR-JRME)*, 4(5), 48–51.
- Brookover, W. (1982). *Creating effective schools: An in-service program for enhancing school learning climate and achievement*. Learning Publications, Inc.
- Casavant, M. D., & Cherkowski, S. (2001). Effective Leadership: Bringing Mentoring and Creativity to the Principalship. *NASSP Bulletin*, 85(624), 71–81. <https://doi.org/10.1177/019263650108562409>
- Cohen, J. (1992). A Power Primer. *Psychological Bulletin*, 112(1), 155–159.
- Crosse, S., Cantor, D., Burr, M., Hagen, C. A., Hantman, I., Mason, M. J., Siler, A. J., Von Glatz, A., & Wright, M. M. (2002). *Wide Scope, Questionable Quality: Three Reports from the Study on School Violence and Prevention*.
- Curry, M. (2008). Critical friends groups: The possibilities and limitations embedded in teacher professional communities aimed at instructional improvement and school reform. *Teachers College Record*, 110(4), 733–774.
- Danielson, C. (2007). *Enhancing professional practice: A framework for teaching*. Pearson Education.
- DuFour, R., & DuFour, R. (2009). *Revisiting professional learning communities at work TM: New insights for improving schools*. Solution Tree Press.
- Edmonds, R. (1979). Effective Schools for the Urban Poor. *Educational Leadership*, 37(1), 15–24.
- Evans, J. D. (1996). *Straightforward Statistics for the Behavioral Sciences*. In *Pacific Grove : Brooks/Cole Publication*. Brooks/Cole Pub. Co.  
<https://doi.org/10.2307/2291607>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). *How to Design and Evaluate Research in Education* (8th ed.). McGraw-Hill.
- Goodman, C. L. (1997). Principal of national blue ribbon schools says high poverty schools can excel. *IDRA Newsletter*, 24(6).
- Gottfredson, G. D., Gottfredson, D. C., Payne, A. A., & Gottfredson, N. C. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention in schools. *Journal of Research in Crime and Delinquency*, 42(4), 412–444.
- Gustin, D. M. (2018). *Indiana alternative education programs and schools:*

*educator perceptions of Lezotte's correlates of effective schools and the Indiana AF grading system.*

- Hallinger, P. (2005). Instructional Leadership and the School Principal : A Passing Fancy that Refuses to Fade Away Instructional Leadership and the School Principal : A Passing Fancy that Refuses to. *Leadership and Policy in Schools*, 4(3), 221–239. <https://doi.org/10.1080/15700760500244793>
- Hallinger, P., & Murphy, J. (1986). *Intruactional Leadership in Effective Schools*. 8, 32.
- Hayes, S. (2008). Characteristics of successful high-poverty schools: What the research tells us. *Montpelier, VT: Vermont Department of Education*.
- Henderson, A. T., & Berla, N. (1994). *A new generation of evidence: The family is critical to student achievement*. ERIC.
- Islahi, F. (2013). Who Make Effective Teachers, Men or Women? An Indian Perspective. *Universal Journal of Educational Research*, 1(4), 285–293. <https://doi.org/10.13189/ujer.2013.010402>
- Johnson, A. D. (2016). The relationship between student perceptions of school effectiveness and student achievement: implications. *Educational Planning*, 31(2).
- Johnson, J. P., Livingston, M., Schwartz, R. A., & Slate, J. R. (2000). What makes a good elementary school? A critical examination. *The Journal of Educational Research*, 93(6), 339–348.
- Kiptum, C. (2018). Correlation Between Instructional Leadership And Students' Academic Achievement In Public Secondary Schools In Baringo County, Kenya. In *British Journal of Education* (Vol. 6, Issue 1).
- Kirk, D. J., & Jones, T. L. (2004). Effective Schools. In *Tersedia: www.pearsonasses.com*.
- Kola, J. A., & Sunday, O. S. (2015). A Review of Teachers' Qualifications and Its Implication on Students' Academic Achievement in Nigerian Schools. *International Journal of Educational Research and Information Science*, 2(2), 10–15.
- Lezotte, L. W. (1993). Correlates of Effective Schools: The First and Second Generation. *Maryland Educators Conference, Baltimore, MD: Effective School Products*.
- Lezotte, L. W. (2001). *Revolutionary and Evolutionary: The Effective Schools Movement*.
- Lezotte, L. W., & Snyder, K. M. (2011). *What effective schools do: Re-envisioning the correlates*. Solution Tree Press.
- Manning, R. L. (2004). *Comparative analysis of leadership skills: military, corporate, and educational as a basis for diagnostic principal assessment*

- (*Doctoral dissertation*). Drexel University.
- Marshall, M. L. (2004). *Examining School Climate: Defining Factors and Educational Influences*. Georgia State University Center for School Safety.
- Marzano, R. J. (2001). *A New Era of School Reform: Going Where the Research Takes Us*. Mid-continent Research for Education and Learning.
- Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works*. Association for Supervision and Curriculum Development.
- McLeod, S. (2019). *What does effect size tell you?* Simply Psychology.  
<https://www.simplypsychology.org/effect-size.html>
- Ministry of Education. (2008). *Education For All: Mid-decade Assessment 2007*.
- Ministry of Education. (2009). *GCE O'Levelge faasvaa minvaru mathikurun [Raising the pass rate of students in the GCE O'Level examination]*. Ministry of Education.
- Ministry of Education. (2010). *Improving Educational Quality ; Action Plan for Reaching O ' level Targets*.
- Ministry of Education. (2017). *School Statistics, 2017*.  
[https://www.moe.gov.mv/assets/upload/Stat\\_Book\\_2017\\_min.pdf](https://www.moe.gov.mv/assets/upload/Stat_Book_2017_min.pdf)
- Ministry of Education. (2019a). *Education Sector Analysis Maldives*.
- Ministry of Education. (2019b). *Maldives Education Sector Plan 2019-2023*.
- Miolene, E. (2019). *UNICEF and the Ministry of Education take steps toward decreasing bullying in schools*.  
<https://www.unicef.org/maldives/stories/unicef-and-ministry-education-take-steps-toward-decreasing-bullying-schools>
- Modiba, S. N. (2001). *The importance of vision and mission statements in promoting school effectiveness in Northern Province schools*. Doctoral dissertation, University of Johannesburg.
- Morley, L., & Rassool, N. (2002). *School Effectiveness: Fracturing the Discourse*. Routledge.
- Naemullah, K., Muhammad, I. H., Muhammad, S., Uddin, M. N., & Shafqat, H. (2010). The managerial behavior of secondary school heads in Punjab (Pakistan). *Educational Research and Reviews*, 5(4), 189–192.  
<https://doi.org/10.5897/ERR10.011>
- National Institute of Education. (2014). *The National Curriculum Framework*.  
<https://www.nie.edu.mv/index.php/en/national-curriculum/curriculum-framework/92-national-curriculum-framework-english/file>
- Nyagasia, P. O. (2011). *Determinants of differential Kenya certificate of secondary education performance and school effectiveness in Kiambu and*

- Nyeri counties, Kenya. Unpublished M. Ed thesis Kenyatta University, Nairobi.
- Rosenholtz, S. J. (1985). Effective Schools: Interpreting the Evidence. *American Journal of Education*, 93(3), 352–388.  
<https://doi.org/10.1086/443805>
- Sammons, P., & Bakkum, L. (2011). Effective schools, equity and teacher efficacy: A review of the literature. *Profesorado, Revista de Curriculum y Formacion Del Profesorado*, 15(3), 9–26.
- Sammons, P., Hillman, J., & Mortimore, P. (1995). *Key characteristics of effective schools: A review of school effectiveness research* (London). Institute of Education: University of London.
- Scheerens, J. (2000). Improving school effectiveness. In *Fundamentals of Educational Planning* (Vol. 68). Unesco International Institute for Educational Planning.
- Schmoker, M. (2001). *The results fieldbook: Practical strategies from dramatically improved schools*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Shepard, LA (2000). The role of assessment in a learning culture. *Journal of Continuing Education in the Health Professions*, 23(1), 30–37.
- Shafeeu, I. (2019a). *Relationship Between Principals' Instructional Leadership and School Eectiveness. Does It Make a Difference? Evidence from the Maldives*. <http://etheses.dur.ac.uk/13134/>
- Shafeeu, I. (2019b). Instructional leadership: does it make a difference? Evidence from the Maldives. *International Journal of Leadership in Education*, 1–23. <https://doi.org/10.1080/13603124.2019.1690697>
- Shaver, J. P. (1993). What statistical significance testing is, and what it is not. *The Journal of Experimental Education*, 61(4), 293–316.
- Shiuna, M., & Sodiq, A. (2013). Improving education in the Maldives: stakeholder perspectives on the Maldivian education. *International Journal of Small Economies*, 4, 23–38.
- Smith, W. F., & Andrews, R. L. (1989). *Instructional leadership: How principals make a difference*. Association for Supervision and Curriculum Development.
- Tomlinson, T. M. (1992). *Hard work and high expectations: Motivating students to learn*. US Department of Education, Office of Educational Research and Improvement.

## Level of wellbeing among Maldivians during the COVID19 pandemic

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### Abstract

This study aims to present the level of wellbeing associated with demographic factors and COVID-19-related factors of people living in the Maldives during the COVID-19 pandemic. Data were collected from 312 participants aged 18 years and above using a two-stage random sampling approach. Mental Health Continuum Short Form (MCF-SF), was used for data collection. The mental wellbeing results revealed average scores in the three wellbeing domains; emotional wellbeing 4.33 (SD = 0.05), social wellbeing 3.81 (SD = 0.05), and psychological wellbeing 4.60 (SD = 0.04). Females reported a higher level of stress and a low score on the mental wellbeing scale. Participants who were single reported higher levels of stress and low levels of mental wellbeing than those who were married or divorced/widowed. Those who were unemployed and those who feared receiving medical assistance reported higher levels of stress while scoring low on mental wellbeing. At the time of the study, which was during the first wave of the pandemic, the most affected region was Male, while no significant case numbers were reported in the islands, which represents a significant population in the dataset. This study is among the few studies done in Maldives examining the mental wellbeing of the people during the Covid19 pandemic. As such, this study indicates how the extent Maldivians are affected by the Pandemic. This information will be useful for relevant authorities to plan effective interventions, identify vulnerable groups and plan to reduce the burden of mental health during crises in the future.

**Keywords:** mental wellbeing, Covid-19 pandemic, emotional. social, psychological wellbeing

## 1. INTRODUCTION

The novel SARS CoV-2 coronavirus pandemic disrupted the lives of people globally, as countries had to enforce restrictions on public life, including isolation, quarantine, physical distancing and nationwide lockdowns (Gubler et al., 2021; Hawryluck et al., 2004). COVID-19 has had a psychological impact on the public (Qiu et al., 2020) and measures to control the disease have particularly affected people's health in detrimental ways (Feroz et al., 2020). There is an association between psychological distress and quality of life. For example, when people are faced with life-threatening diseases, they experience fear. Facing uncertainty due to lockdowns, rapid infection rates and mortality can lead to worry and concern among people (Winefield et al., 2012). One method by which fear and distress are escalated is when people become obsessed with listening to pandemic news on mass media (Chen et al., 2020). In fact, some studies have reported a direct association between social media exposure and anxiety during the pandemic (Gao et al., 2020). As a result, the WHO advised people to avoid obsessive exposure to COVID-19 news (Costa et al., 2021).

Isolation and quarantine (more extreme types of social distancing) exacerbated sadness and anxiety (Jeong et al., 2016). Many people find social distancing difficult because they can no longer visit friends and relatives, and isolation requires that physical contact be avoided (Brooks et al., 2020). Lack of emotional support and lack of engagement in social activities, especially during a pandemic, can be very disorienting for people. A large-scale survey of over 50,000 people across 26 countries revealed that there is a difference in how people respond to the onset of a pandemic (Inauen & Zhou, 2020). The findings of this study identified some groups as vulnerable and indicated that several moderating factors, such as exposure to society, impact wellbeing. Additionally, individuals with positive affect utilized active coping techniques, including emotional and religious support (Zacher & Rudolph, 2021). Individual psychological wellbeing is associated with individual engagement in activities (Isiklar, 2012).

Research conducted during the pandemic also indicates an association between demographic factors and mental wellbeing. For instance, Geirdal et al, (2021) stated that early stage of the pandemic to nine months after the pandemic, factors such as age, gender, civil status, education, employment, place of work and living area had a significant impact on psychosocial health among people. Further studies established association between specific demographic factors, such as age, income and gender, and two types of anxiety (disease anxiety and consequence anxiety) (McElroy et al., 2020; Godinić et al., 2020).



Although the Covid situation across the globe has improved during the past year, research indicates that there has been an increase in financial uncertainty, such as job loss, unemployment and economic uncertainty, impacting individual psychological wellbeing (Godinić et al., 2020). Job insecurity comprises cognitive and affective elements; for example, cognitive elements of losing a job are related to a perception of negative life changes, while the affective element is related to feelings of anxiety over losing the job. Research conducted by Hiswåls et al. (2017) on unemployment and wellbeing after job loss during economic recessions reveals that participants experienced feelings of loss of dignity, insecurity due to the change in financial situation and loss of a sense of belongingness, causing them to lose their social identity. Taken together, these findings from previous studies support the finding that people experienced poor mental wellbeing overall. This is the first study to date that investigated the level of perceived wellbeing among Maldivians due to the COVID-19 pandemic.

## 2. COUNTRY CONTEXT

The Maldives consists of 1190 islands out of which 187 are inhabited (Maldives Bureau of Statistics, 2021). Islands are stretched over 800 kilometres in length and 130 kilometres wide. The total population of the Maldives is estimated at 407,660 (National Bureau of Statistics, 2020). The Maldives Islands are small, with just a few islands longer than 2 square kilometres. About 36% of Maldives islands have a population of less than 1000 and 2 % of the islands have a population of over 5000 (National Bureau of Statistics, 2020). The capital city - Male' estimated at 2 square kilometres of land is the most developed island of all. This archipelago in the Indian Ocean is the smallest nation states in Asia. The United Nations classified the Maldives as a Small Island Developing State (SIDS) (Asian Development Bank, 2015).

The Maldives experienced the impact of the pandemic around March 2020, and like other countries, prevention measures such as social distancing and lockdowns on different occasions were imposed. The first lockdown was in March 2020, when the first community spread case was reported. At the time of data collection for this study, the lockdown and restrictions were eased. People were allowed to go out at specified times and observed social distancing. However, during the lockdown people had to be confined to small spaces, which magnified the already existing psychosocial issues, such as divorce, abuse and violence (Fulu, 2016). In the wake of reports of abuse and to address social issues arising due to the pandemic, it is necessary to explore how much the pandemic and the prevention measures impacted the wellbeing of the public. Therefore, this study assessed the

psychological wellbeing of the public during the COVID-19 pandemic, with a focus on examining the difference between COVID-19-related factors, pre-existing health conditions and psychological wellbeing. The study is also timely because no study has been published to date that has investigated the level of perceived wellbeing among Maldivians due to the COVID-19 pandemic.

### **3. METHODS**

#### **3.1 Design and Sample**

The study employed a cross-sectional quantitative research design. An online anonymous survey questionnaire was administered between January and February 2021 to Maldivians who were 18 years old and older. The survey was administered soon after the first lockdown, when people were allowed to go out at specified times and fewer restrictions were imposed.

A two-stage sampling method was used. In the first stage, the 190 inhabited islands of Maldives were divided into 15 strata (Islands) primarily determined from the 2014 census data. In the 2014 census data, stratification of islands was performed by grouping the population into 100s. For the purpose of this study, a proportionate number of islands from each stratum was chosen randomly to represent a total of 50 islands. Once the islands were selected, a focal point from each island was identified to help with the distribution of the questionnaire. The survey questionnaire was sent to the participants through Viber and WhatsApp. Although the sample size calculated using the Raosoft online calculator was 384 ( $p=0.05$ ). A total of 706 responses were received for this study.

#### **3.2 Instruments**

##### *3.2.1 Mental Health Continuum Short Form (MHC-SF)*

In this study, the MHC-SF was used to measure wellbeing. The MHC-SF is a short form of the MHC scale measuring emotional wellbeing with 14 items (Keyes, 2006). The MHC-SF contains 3 components of wellbeing: Hedonic (emotional) wellbeing, Eudaimonic (social) wellbeing and Eudemonic (psychological) wellbeing. The short form of the MHC scale measures the frequency at which respondents experienced each symptom of positive mental health. The questionnaire was adapted to include a section on demographics. MHC English version was translated into local language- Dhivehi and back translated. A pilot test was conducted to test the questionnaire for comprehension of all levels of individuals.

### *3.2.2 Demographic variables*

The survey form consists of three sections. Demographic data, such as age, gender, locality, education, relationship status, number of children, family condition (does anyone in the family/your child have a special need condition), current living conditions (rent, own a house, stay with a friend, stay in a temporary shelter), living situation (alone, extended family) and pre-existing conditions are included in the survey.

### *3.2.3 Factors related to COVID-19*

Participants were asked thirteen questions related to COVID-19 pandemic experiences. These questions required participants to respond if they had experienced any of the following situations within the past month: isolation or taken to an isolation facility after testing positive, taken to a quarantine facility, the number of days in the facilities, fear of seeking medical help, employment status, working condition (working from home), working hours, and how participants interacted and communicated. They were also asked about family members testing positive or passing away and the perception about the current situation.

### *3.2.4 Pre-existing Health Conditions*

Pre-existing health conditions were explored in the study participants. These conditions could include a wide range of health conditions, such as arrhythmia, cardiovascular disease, coronary artery disease, heart disease, heart failure, hypertension, infarction, peripheral vascular disease, venous thromboembolism, autoimmune conditions, inflammatory bowel disease, immunosuppression, chronic kidney disease, chronic liver disease/cirrhosis, diabetes, cerebrovascular stroke, dementia, depression, neurological disease, psychiatric disorder, cancer, obesity, asthma, respiratory disease and sleep disorders (Treskova-Schwarzbach et al., 2021). Pre-existing conditions, such as health, psychological, and medical problems, as well as a history of prior trauma were investigated.

## **3.3 Ethical Considerations**

Ethical clearance was obtained from the ethics committee of Islamic University of Maldives and Maldives Research Council. Participation in this research was voluntary. Since the questionnaire was a google survey form, the form was designed such that only when participants consented, they can proceed with the survey.

### 3.4 Data Analysis

Data were screened for missing values and irregularities prior to data analysis. The data were prepared for analysis by adding the scores obtained for the Likert-type responses under the wellbeing category. Subsequently, for descriptive statistics of frequency, percentage, mean and standard deviation, as well as for inferential statistics, independent sample t tests and ANOVAs were employed using IBM SPSS Statistics version 21.0. One-way ANOVA was performed to analyse the differences in people's wellbeing based on their marital status.

To examine the level of wellbeing within the investigated population, the mean scores of the sub dimensions as well as for the whole dimension (14 items together) were computed. To examine the difference in wellbeing with respect to age, the data were categorized as follows: (i) 28 years and below, (ii) 29 to 34 years, (iii) 35 to 42, and (iv) 43 years and above. One-way ANOVA was used to analyse the differences among these groups. To examine the difference in wellbeing with respect to gender, an independent sample t test was carried out. An independent sample t test was also carried out to determine whether the reported level of wellbeing differs between the capital city and other areas. To examine the difference in wellbeing based on whether the participants lived with extended family, an independent sample t test was carried out.

### 4. RESULTS

The mean scores of psychological wellbeing of Maldivians during the COVID-19 pandemic were rated as follows:  $<2.67$ , low;  $2.67 - 4.66$ , average and  $>4.67$  high. The emotional wellbeing of the public during COVID-19 were rated as average (mean = 4.33, SD = 1.29). Although they had relatively lower mean scores, the social wellbeing of the public during the pandemic was also rated as average (mean = 3.81, SD = 1.20). Additionally, the psychological wellbeing of the public during the period was also rated as average (mean = 4.60, SD = 1.09) despite being very close to the upper boundary of the category. The overall wellbeing of the public during the COVID-19 pandemic was rated as average (mean = 4.26, SD = 0.99). The psychological wellbeing scale scores ranged from 4.70 to 4.83. Furthermore, while no items ranked low on the entire scale, the results showed that the lowest-scoring items belonged to the social wellbeing dimension.

#### 4.1 Wellbeing and Demographic Factors

Demographic factors included age, gender, location, marital status, and living with extended family. The COVID-19-related factors included isolation, quarantine, employment, family interaction, and COVID-19 cases in the family. Findings revealed that there was a significant difference in well-being between the age groups [ $F(3, 702) = 12.76, p = 0.000$ ]. However, a small effect ( $\eta^2 = 0.05$ ) was demonstrated. Subsequently, the post hoc procedures revealed that the youngest age group ( $\leq 28$  years) had significantly lower well-being scores (mean = 54.66, SD = 14.77) than the other age groups. Table 1 illustrates the findings.

Table 1

Wellbeing and age

Age			N	F	p
	M	SD			
$\leq 28.00$	54.67	14.77	178		
29-34	59.55	12.75	185		
35-42	62.91	13.18	179		
43+	51.72	13.46	164		
			702	12.76	0.000

To investigate the difference in wellbeing with respect to gender. An independent sample t test was conducted. According to the results, there was no significant difference between males (mean = 60.90, SD = 14.19) and females (mean = 59.34, SD = 13.81) in their overall wellbeing during COVID-19 [ $t(703) = 1.214, p = 0.225$ ]. An independent sample t test was also carried out to determine whether the reported level of wellbeing differs between the capital city and other areas. According to the results, there is no significant difference between the capital city (mean = 59.32, SD = 13.27) and other regions (mean = 59.93, SD = 14.34) in their overall wellbeing [ $t(704) = 0.580, p = 0.562$ ].

One-way ANOVA was performed to analyse the differences in peoples' wellbeing based on their marital status. The results indicate that there was a significant difference in wellbeing among the marital status categories [ $F(2, 703) = 9.207, p = 0.000$ ]. However, it demonstrated a small effect ( $\eta^2 = 0.03$ ). Following the significant ANOVA results, post hoc analysis was carried out, and the results revealed significant differences between those who had never married (mean = 54.79, SD = 15.82) and those who were married (mean = 60.60, SD =

13.35). There was also a significant difference between those who had never married and those who were divorced/widowed (mean = 61.28, SD = 12.56).

#### 4.2 Wellbeing and Living Conditions

To examine the difference in wellbeing on the basis of whether the participants lived with extended family, an independent sample t test was carried out. According to the results, there was no significant difference in wellbeing regardless of whether the participants lived with extended families (mean = 59.32, SD = 14.45) or not (mean = 60.07, SD = 13.24) [ $t(704) = 0.718$ ,  $p = 0.473$ ].

#### 4.3 COVID-19-related Factors

For the variables associated with various factors related to COVID-19, an independent sample t test was performed to determine whether there was a significant difference in wellbeing with respect to whether participants were isolated or quarantined, whether they were employed or not during the period, and whether they had COVID-positive cases in their family. According to the results, there was a significant difference in wellbeing between those who were employed during the COVID period (mean = 60.75, SD = 13.14) and those who were not employed (mean = 57.63, SD = 15.03),  $t(704) = 2.852$ ,  $p = 0.004$ . The results also indicated that there was no difference in wellbeing with respect to any other three variables. However, there was a significant difference in wellbeing between those who were satisfied with the amount of family interaction during COVID-19 (mean = 52.21, SD = 14.38) and those who were not (mean = 62.44, SD = 12.64),  $t(305.14) = -8.67$ ,  $p = 0.000$ . The eta-squared value of 0.107 demonstrates a moderate effect.

Moreover, differences in well-being were also investigated based on pre-existing health conditions as well prior exposure to trauma. These analyses were carried out using independent sample t tests, and the results are shown in Table 9. According to the results, there was a significant difference in wellbeing between those who had a pre-existing health or medical condition (mean = 56.11, SD = 14.70) and those who did not (mean = 60.34, SD = 13.64),  $t(704) = -2.962$ ,  $p = 0.003$ . This result, however, is consistent with a small effect, with an eta-squared value of 0.012. Moreover, there was also a significant difference in wellbeing between those who had prior exposure to trauma (mean = 57.34, SD = 14.74) and those who did not (mean = 60.56, SD = 13.46),  $t(327.21) = -2.639$ ,  $p = 0.009$ . This indicates a small effect, with eta-squared = 0.011. Table 3 illustrates the findings of COVID 19 related factors.

Table 2

COVID 19 related factors

Measure	yes		No		t	p
	M	SD	M	SD		
Isolation	58.09	14.57	59.81	13.83	t(704)= -0.9	0.369
Quarantined	60.89	12.98	59.24	14.19	t(704)=1.38	0.167
Employed	60.75	13.14	57.63	15.03	t(704)=2.852	0.004
Family	52.21	14.38	62.44	12.64	t(305.14)= -	0.000
Interactions					8.67	
Pre health	56.11	14.70	60.34	13.64	t(704)=2.962	0.003
Trauma Crisis	57.37	14.74	60.56	13.46	t(327.21)= -	0.009
					2.639	

## 5. DISCUSSION

The level of wellbeing of the individuals during the pandemic or at any point of the pandemic were an under researched area in the Maldives. This study addressed the knowledge gap in the Maldivian literature by examining the level of wellbeing during the COVID-19 pandemic. This study assessed over 706 Maldivians' wellbeing. Since the Maldives is a small island with limited resources and congested living space, it was important to examine the status of Maldivian wellbeing during stressful times such as the pandemic. The picture emerging from this study indicates that the majority of the Maldivians had between languishing and flourishing mental health. Findings based on age and psychological wellbeing suggest that participants below 29 years of age have hedonic wellbeing compared with that of older participants. However, no major differences in wellbeing were observed among the females and males in this respect. Furthermore, there were no significant differences in the level of mental health between participants in the capital city and the islands. Our findings are slightly different from the data in other countries (Bell et al., 2021; Zacher & Rudolph, 2021).

The respondents who identified themselves as married exhibited significant differences according to whether they were never married, divorced or widowed. This result suggests that coping with life stressors is much easier when a person is in a relationship. Additional analysis revealed no difference in psychological wellbeing between living alone and living with extended family members. Our findings are inconsistent with those of studies that suggest that when individuals are lonely and isolated, they become vulnerable to anxiety, depression and suicidal thoughts (Nkire et al., 2021). Perhaps this small island nation with a

collectivistic orientation may serve as a buffer against psychological distress (Seppala et al., 2013).

In this nationwide survey, we measured conditions related to COVID-19. Our study findings are unique in the sense that several studies on COVID-19 and wellbeing indicated lower wellbeing among groups such as women, young people and unemployed people (Bell et al., 2021; Wang et al., 2020; Xiao, 2021). Additionally, isolation and loneliness are known to have adverse effects on mental wellbeing. Individuals living alone are prone to anxiety, depression, self-harm and suicide, especially under extremely stressful conditions. The COVID-19 pandemic is known to have caused extreme stress. Available evidence points to the measures taken to reduce anxiety and depression in vulnerable individuals living alone with fewer family interactions. However, this study's findings differed, as the analysis indicated no significant difference in wellbeing regardless of whether individuals were in isolation or quarantine.

This study also investigated the differences in wellbeing based on pre-existing health conditions and exposure to trauma. The findings revealed that there is a difference in wellbeing among individuals with pre-existing medical conditions compared with that in those without a history of medical conditions. Consistent with findings from other parts of the world, particularly from North America, Europe and Western Pacific countries, indicate that individuals with pre-existing health conditions have a greater risk for COVID-19 disease progression to severe stages requiring hospitalization, intensive care and fatality (Treskova-Schwarzbach et al., 2021).

### **5.1 Strengths and Limitations**

There are several strengths to study design. Firstly, this is the first study of this scale in the Maldives. Second, a large range of variables (e.g., sociodemographic, psychological, health, COVID-19 specific) were assessed in this survey, yielding a vast amount of information that helps in identifying the mental wellbeing of Maldivians during the pandemic.

The current study has several limitations which could be addressed in future research. For example, the descriptive nature of the study prevents drawing casual conclusions and future qualitative research or mixed method approaches are required to fully understand the reasons why Maldivians were not negatively affected in a Pandemic regardless of the low resources and confined spaces. A study of this nature needs to be carried out in a timely manner to obtain a full picture and also could have been carried out in waves to compare the psychological state of Maldivians.



## 6. CONCLUSIONS

Pandemics are challenging times as many strive to find the precedents in an unprecedented situation. This study enhanced understanding of the lives of Maldivian people during the Covid19 Pandemic. The study gave an indication of the extent of the toll on Maldivian community due to the pandemic. The findings highlighted that Maldivians in general had languishing and flourishing mental health during Covid. This means that ...In this study Wellbeing was measured against demographic and Covid19 related factors. Specific results of wellbeing in relation to age showed that those below 29 years had hedonic wellbeing compared to older people. There was no difference in wellbeing in relation to age, gender, location or whether respondents were living with extended family or not. However, there was a difference in wellbeing between those married and those who were divorced, single or widowed.

The findings from this study related to Covid19 factors such as those who were isolation or quarantined during the Pandemic showed no significant difference in wellbeing in relation above mentioned factors. These results are inconsistent with much of the existing literature. However, there was a significant difference in wellbeing among those who had pre-existing health conditions and those who were exposed to trauma which aligned with most of the Covid19 related literature. The reason could be that individuals with pre-existing conditions are a vulnerable group and are at a greater risk for complications during the COVID-19 pandemic due to the nature of the illnesses. In general the study revealed that Maldivians were not psychologically affected compared with other populations in the world.

The knowledge and understanding generated from the findings may be useful to organizations and mental health practitioners to guide their practices. Additionally, this study may generate future studies regarding the impact of COVID-19 on people with pre-existing conditions to develop effective care delivery and management support procedures for hospitalized patients and outpatients during the pandemic.

## REFERENCES

- Asian Development Bank (2015). Maldives: Overcoming the challenges of a small island state. Retrieved from <https://www.adb.org/sites/default/files/publication/172704/maldives-overcoming-challenges-small-island-state.pdf>
- Bell L. M., Smith, R., van de Venter, E. C., Shuttleworth C., Wilson, K., & Lycett, D. (2021). COVID-19 stressors, wellbeing and health behaviours: A cross-sectional study. *Journal of Public Health (Oxford, England)*, 43(3), e453–e461. <https://doi.org/10.1093/pubmed/fdab241>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., &
- Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet (London, England)*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Chen, X., Gao, H., Zou, Y., & Lin, F. (2020). Changes in psychological wellbeing, attitude and information-seeking behaviour among people at the epicentre of the COVID-19 pandemic: A panel survey of residents in Hubei province, China. *Epidemiology and Infection*, 148, e201. <https://doi.org/10.1017/S0950268820002009>
- Costa, A., Jesus, S., Simões, L., Almeida, M., & Alcaface, J. (2021). A Case of Obsessive-Compulsive Disorder Triggered by the Pandemic. *Psych*, 3(4), 890–896. <https://doi.org/10.3390/psych3040055>
- Feroz, A. S., Ali, N. A., Ali, N. A., Feroz, R., Meghani, S. N., & Saleem, S. (2020). *Impact of the COVID-19 pandemic on mental health and well-being of communities: An exploratory qualitative study protocol | BMJ Open*. 10(12). <https://doi.org/10.1136/bmjopen-2020-041641>
- Fulu, E. (2016). *The Maldives study on women's health and life experiences: Initial results on prevalence, health outcomes and women's responses to violence*. <http://saruna.mnu.edu.mv/jspui/handle/123456789/6823>
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLOS ONE*, 15(4), e0231924. <https://doi.org/10.1371/journal.pone.0231924>
- Geirdal, A. Ø., Ruffolo, M., Leung, J., Thygesen, H., Price, D., Bonsaksen, T., & Schoultz, M. (2021). Mental health, quality of life, wellbeing, loneliness and use of social media in a time of social distancing during the COVID-19 outbreak. A cross-country comparative study. *Journal of*

- Mental Health (Abingdon, England)*, 30(2), 148–155.  
<https://doi.org/10.1080/09638237.2021.1875413>
- Godinić, D., Obrenovic, B., & Khudaykulov, A. (2020). Effects of Economic Uncertainty on Mental Health in the COVID-19 Pandemic Context: Social Identity Disturbance, Job Uncertainty and Psychological Well-Being Model. *International Journal of Innovation and Economic Development*, 6(1), 61–74. <https://doi.org/10.18775/ijied.1849-7551-7020.2015.61.2005>
- Gubler, D. A., Makowski, L. M., Troche, S. J., & Schlegel, K. (2021). Loneliness and Well-Being During the Covid-19 Pandemic: Associations with Personality and Emotion Regulation. *Journal of Happiness Studies*, 22(5), 2323–2342. <https://doi.org/10.1007/s10902-020-00326-5>
- Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases*, 10(7), 1206–1212.  
<https://doi.org/10.3201/eid1007.030703>
- Hiswåls, A.-S., Marttila, A., Mälstam, E., & Macassa, G. (2017). Experiences of Unemployment and Well-being after Job Loss during Economic Recession: Results of a Qualitative Study in East Central Sweden. *Journal of Public Health Research*, 6.  
<https://doi.org/10.4081/jphr.2017.995>
- Inauen, J., & Zhou, G. (2020). Health and Well-Being in the Early Stages of the Covid-19 Pandemic: Insights from Applied Psychology. *Applied Psychology: Health and Well-Being*, 12(4), 937–945.  
<https://doi.org/10.1111/aphw.12245>
- Isiklar, A. (2012). Examining Psychological Well-Being and Self-Esteem Levels of Turkish Students in Gaining Identity against Role during Conflict Periods. *Journal of Instructional Psychology*, 39(1), 41–50.
- Jeong, H., Yim, H. W., Song, Y.-J., Ki, M., Min, J.-A., Cho, J., & Chae, J.-H. (2016). Mental health status of people isolated due to Middle East Respiratory Syndrome. *Epidemiology and Health*, 38, e2016048.  
<https://doi.org/10.4178/epih.e2016048>
- Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *The American Journal of Orthopsychiatry*, 76(3), 395–402.  
<https://doi.org/10.1037/0002-9432.76.3.395>
- McElroy, E., Patalay, P., Moltrecht, B., Shevlin, M., Shum, A., Creswell, C., & Waite, P. (2020). Demographic and health factors associated with

- pandemic anxiety in the context of COVID-19. *British Journal of Health Psychology*, 25(4), 934–944. <https://doi.org/10.1111/bjhp.12470>
- National Bureau of Statistics. (2020). *Statistical pocketbook of maldives*.
- Nkire, N., Nwachukwu, I., Shalaby, R., Hrabok, M., Vuong, W., Gusnowski, A., Surood, S., Greenshaw, A. J., & Agyapong, V. I. O. (2021). COVID-19 pandemic: Influence of relationship status on stress, anxiety, and depression in Canada. *Irish Journal of Psychological Medicine*, 1–12. <https://doi.org/10.1017/ipm.2021.1>
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations. *General Psychiatry*, 33(2), e100213. <https://doi.org/10.1136/gpsych-2020-100213>
- Seppala, E., Rossomando, T., & Doty, J. R. (2013). Social Connection and Compassion: Important Predictors of Health and Well-Being. *Undefined*.
- Treskova-Schwarzbach, M., Haas, L., Reda, S., Pilic, A., Borodova, A., Karimi, K., Koch, J., Nygren, T., Scholz, S., Schönfeld, V., Vygen-Bonnet, S., Wichmann, O., & Harder, T. (2021). Pre-existing health conditions and severe COVID-19 outcomes: An umbrella review approach and meta-analysis of global evidence. *BMC Medicine*, 19(1), 212. <https://doi.org/10.1186/s12916-021-02058-6>
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International Journal of Environmental Research and Public Health*, 17(5), E1729. <https://doi.org/10.3390/ijerph17051729>
- Winefield, H., Gill, T., Taylor, A., & Pilkington, R. (2012). Psychological well-being and psychological distress: Is it necessary to measure both? *Psychology of Well-Being*, 2(1). <https://doi.org/10.1186/2211-1522-2-3>
- Xiao, W. S. (2021). The Role of Collectivism–Individualism in Attitudes Toward Compliance and Psychological Responses During the COVID-19 Pandemic. *Frontiers in Psychology*, 12. <https://www.frontiersin.org/article/10.3389/fpsyg.2021.600826>
- Zacher, H., & Rudolph, C. W. (2021). Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic. *The American Psychologist*, 76(1), 50–62. <https://doi.org/10.1037/amp0000702>

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