



Investigating Behaviour of Virtual Instructional Leadership Among Principals of Secondary School Malaysia

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Abstract. The latest corona pandemic that has hit the country has brought changes in principals' leadership practices in Malaysia. This global phenomenon requires the principals to think futuristically, out from the common practices, and dare to make necessary changes in practicing instructional leadership at schools. Thus, this qualitative study aimed to explore the virtual instructional leadership behaviours among school leaders. The findings showed that principle practices virtual instructional leadership behaviours by integrating mobile device technologies and new mediums of virtual communication in practicing instructional leadership. The use of these new virtual communication mediums such as WhatsApp, Telegram, and Facebook has shaped the instructional leadership practices of principals in this challenging phase. The findings also showed that virtual instructional leadership behaviour practiced by the principals is already practiced in schools before this pandemic hit the country. The educational experts suggested that principals seize the opportunities of the information and communication technology advancement in empowering the virtual instructional leadership of school leaders. This study also validated 41 virtual instructional behaviours of school leaders from the previous researchers. This study will contribute as the basis of understanding of the virtual instructional leadership among Malaysian principals. However, it is recommended to conduct further in-depth studies to strengthen virtual instructional leadership.

Keywords: Instructional leadership, virtual instructional leadership, virtual communication, social media, communication applications, web applications.

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INTRODUCTION

The worldwide Coronavirus (COVID-19) pandemic was identified in Hubei, Wuhan, on 31st December 2019. It hits many countries, starting from China, Korea, Japan, Singapore, and Malaysia. This pandemic not just meticulously impacted the business sectors, but it also gave a very challenging phase to educational sectors. The implementation of movement control order (MCO) by the Malaysian government had forced schools to shut down to control the rising number of infected cases. During this phase, the Ministry of Malaysian Education introduced the learning from home for all the students. It is to make sure that the teaching and learning process can still be carried out during this challenging phase. These new approaches in teaching and learning processes open up a new chapter in the practice of principal leadership. The new technological environments of information and communication delivery expected to provide an advantage to principal leadership in this critical moment.

The previous study showed that the new mediums of virtual communication such as WhatsApp, Telegram, and Facebook had already integrated into principal leadership practices in the Malaysian context (Yusof, 2017; Yusof & Ibrahim, 2016). However, this pandemic had opened a new chapter in the use of other virtual communication technologies to facilitate the principals. Principals started to use various platforms of information and communications applications such as Webex, Zoom, and Google Meet to arrange meetings with teachers. This new and current phenomenon has sparked a revolution in the practice of the principal's leadership in schools. Principals are more courageous and dynamic to face the current challenges of change (Yaakob et al., 2019). This in line with the government's appreciation in the Malaysian Educational Development Plan 2013-2015 (PPIM 2013-2025), which requires high-performing leaders in schools (Kementerian Pendidikan Malaysia, 2013).

The latest empirical studies conclude that the effective schools' leaders are the critical factors in the escalating the school success (Aniza & Zaidatol Akmaliah, 2013; Horng & Loeb, 2010; Hoy & Miskel, 2013). In the process of achieving this, the instructional principal leadership practices are important. Studies proved that instructional leadership had a significant relationship to school performance and students' learning, teaching competencies, teacher effectiveness, and motivation (Hallinger et al., 2014; Rami et al., 2020; Yusof, Mohd faiz, et al., 2019). Therefore, the principal, as the instructional leaders in schools, needs to mobilize all the teachers to be more proactive in achieving a better result in students' achievements (Prasojo et al., 2020). In other words, instructional leadership needs to be applied effectively by the principals in their daily practice leadership at schools. However, in reality, principals are leaders who are too busy with administrative tasks (Azni et al., 2015; Jameela Bibi & Jainabee, 2012; Yusof, 2020) that caused them to face constraints to practice all the instructional leadership functions holistically (Malaysia Ministry of Education, 2013).

Principals often lack time to focus and pay attention to the curriculum and teaching process (Jameela Bibi & Jainabee, 2012; Jamilah & Yusof, 2011) and to discuss and guide teachers related to the teaching process (Arsaythamby Veloo & Komuji, 2013; Flanagan & Jacobsen, 2003; Hamzah et al., 2016; Omar & Ismail, 2020) Azlin & Izham, 2016; Flanagan, Linda & Jacobsen, 2013). Besides, the limited effective communication of the principals and teachers also impacted on the effectiveness of group communication. It thus affecting the instructional leadership functions such as discussing and providing guidance to the teaching and learning process. To improve teaching and learning competencies, principals need to communicate effectively (Kannan et al., 2012; Mohammed Sani et al., 2013; Supyan, 2014; Yusof et al., 2020) by providing guidance, advice, assistance, support, and encouragement to teachers (Azni et al., 2015; Norashikin et al., 2013).

However, the advancement of information and communication technologies (ICT) in this era, especially the development of mobile devices technologies, internet, and wireless communications, as well as new virtual communications mediums such as WhatsApp and Telegram, bring changes to school leadership practice (Yusof, Yaakob, et al., 2019). Communication becomes easier between school leaders and teachers through this virtual technology. This information and communication technologies facilitated the principals to practice virtual instructional leadership everywhere, especially when they are performing official duties outside the school area (Ibrahim et al., 2019). Coinciding with the limitations due to the Coronavirus pandemic, information, and communication technology (ICT) is seen as the key element in practicing instructional leadership among principals in this challenging phase.

RESEARCH OBJECTIVES

This research aimed to explore the behaviour of virtual instructional leadership among principals in secondary schools in Malaysia.

METHODOLOGY

This qualitative research design aimed was to explore the principal virtual instructional leadership behaviours. This research divided into a few phases. In the first phase of the initial study using an online behaviour checklist, the second phase involved observation, and the third phase was a semi-structured interview with the principals and lecturers in educational leadership. Prior to the data collection through interviews, researchers conducted a preliminary survey by distributing online behaviour checklists to secondary schools' principals in Terengganu, Malaysia. Next, a researcher requests permission from the Educational Planning and Research Department (EPRD), Ministry of Education Malaysia (MOE), through the online system. After the permission granted, researchers took about 48 hours to do the observations on the principal's virtual leadership behaviour before the interviews conducted.

The researchers themselves conducted the interview process on eight principals and two lecturers in the field of educational leadership. This interview protocol consisted of three main components which are; i) Provision of internet infrastructures and wireless technology in schools; ii) Virtual instructional leadership behaviours consisted of 41 behaviours that represent the functions of schools goal definition, monitoring students progress, integrating mobile device technology, providing incentives to teachers, providing incentives to students and engaging community support.

The transcription process conducted after the interview process. The conversation in the interview process transcript to words or documentation. A coding process carried out to make sure that the data are easier to understand and analyse. Then, each interviewed transcript goes to the process of re-read to gain a better understanding of the data and to make sure that the data that are not related to this study removed. Later, the thematic analysis procedure carried out to extract the main themes from the data (Braun & Clarke, 2006). The main themes extracted according to the virtual instructional leadership behaviours, which refers to the behaviours of integrating mobile device technologies and new mediums of virtual communication in principal instructional virtual leadership.

In the context of trustworthiness, three criteria used to validate this study, which are credibility, availability, and suitability (Chiovitti & Piran, 2003). Credibility refers to how congruent the information about the phenomenon or discovery in reality (Chiovitti & Piran, 2003). Furthermore, to obtain high reliability for the collected data, triangulation of the data performed. According to Wiersma (1991), data triangulation used in a study in several ways to make sure that the collected data achieved a high level of reliability. Among the data triangulation methods used in this study are behavioural checklists and observation checklists with the principals and triangulation of the principal interview data with an expert lecturer's interview data in the field of educational leadership.

The reliability of the collected data from the interviews was going through systematic cross-reference with the information provided by the respondents. The reliability achieved when the same information repeated several times in a row from one respondent. The researchers can use this technique through the encoding process of the data in interview transcription (Jasmi, 2012).

Ethical issues are an important issue in every research planning. The respondents must not be burdened by the research or data. Thus, in this study, the safety and confidentiality of the respondents have to be protected. Nicknames are used during the writing and encoding process to protect the privacy of the respondents. Respondents are also aware that they can withdraw from this study at any time without giving any explanation.

FINDINGS

The findings of this study presented based on the findings of the preliminary survey, observations, and interviews.

Preliminary Survey

This preliminary survey involved 45 secondary school principals in the state of Terengganu, Malaysia. All the school principals have between one to nine years of experience as a school principal. The majority of the principals are in grade DG52 (71.1%), and among that, 73.3% have a bachelor's degree. The remaining principals are at DG54 with a master's degree.

The results of the principal instructional leadership behavioural checklist analysis generally showed that the principal's practice or integrate mobile device technology and new mediums of virtual communication in instructional leadership in schools. However, there are some virtual instructional leaderships behaviours that less practiced by the principals. These behaviours are using cloud computing (55.6%), which is the lowest behaviour practiced by the principals, followed by the behaviour of uploading students' achievements into the school portal or website (73.3%), as shown in Table 1.

Table 1. *Principals virtual instructional leadership behavioural.*

No	Principals virtual instructional leadership behavioural.	findings (%)
1	Using a cloud computing	55.6
2	Uploading students' achievements in the portal or school web.	73.3

Observations

Based on the findings of the online virtual instructional leadership behaviour checklist, researchers made a direct observation of 41 principal's virtual instructional leadership behaviours. The observation aimed to ensure that the principal practiced the virtual instructional leadership skills. There are eight principals involved in the interview process. They were observed for 48 hours. Overall, the findings of the observation showed that these principals practiced their virtual instructional leadership behaviours during the sessions. However, there is one behaviour that is not fully utilized by the principals, which is the behaviour of uploading the student achievements into the school website or ministry of education portal. There are only three respondents or principals that contributed to 37.5% in the practice of this behaviour. The other five behaviours are assessing co-curricular achievements, students' co-academic to set schools target, to complete internet infrastructure and wireless technology in schools, and discuss with their teachers about curriculum strength. In students' co-academic to set the school target, only four principals (50%) practiced the behaviours, 62.5% or five respondents practiced the behaviours to complete the internet infrastructures and wireless technology in schools, and 75% or six respondents practiced the time to make discussion with the teachers about strengthening the school's curriculum. This result showed in table 2.

Table 2. *Observational findings on virtual instructional leadership behaviours*

Functions	Behaviours	Findings	
		Yes	No
Set school goals	Evaluate student's co-curricular and co-academic achievement to set a school goal.	50% (4 respondents)	50% (4 respondents)
Explain school goals	Upload school goals into the school portal, website, or Facebook.	87.5 (7 respondents)	12.5 (1 respondents)
Supervising and evaluating teaching processes	Discuss with the teachers about the teaching session before supervision.	87.5 (7 respondents)	12.5 (1 respondents)
Monitor students' progress	Discuss with teachers to identify the strengths of the curriculum.	75 (6 respondents)	25 (6 respondents)
	Inform parents of the student's achievement or examination results.	87.5 (7 respondents)	12.5 (1 respondents)
	Upload student's achievement to the school portal or website	37.5 (3 respondents)	62.5 (5 respondents)
Integrating mobile device technology	Equip internet infrastructure and wireless technology in schools.	62.5 (5 respondents)	37.5 (3 respondents)

The behaviours of uploading school goals into the school portal, website, or Facebook, discuss with the teachers about their teaching strategies before supervising and informed the parents regarding their children's results contributed 87.5%, representing seven respondents. All the principals thoroughly practice the other instructional leadership behaviours.

The findings also showed that the new virtual medium of communication, such as WhatsApp and Telegram, is the primary medium of communication used by all the school's staff. In this regard, principals apply the use of these new mediums of virtual communication in their leadership behaviours. In addition, the result of the observations showed that all forms of correspondence, instructions, or discussions are delivered through the WhatsApp group or the school official Telegram in advance.

Similarly, appreciation to teachers and students is also conveyed through the schools WhatsApp group or Telegram before it was announced in school assembly, meetings, or other official social media sites such as Facebook, blogs, or school websites. In the context of the provision of the internet infrastructure and school wireless access, all observed schools provided such facilities placed in the general offices or teacher's staffroom.

Interviews Findings

An interview conducted with the principals to answer the objectives of this study. Eight respondents or principals in the region of Terengganu were chosen to take part in this session. Apart from the eight principals, two lecturers who are experts in the field of educational leadership were also interviewed. The discussion of the findings of this interview focused on four main themes, which are the provision of

internet infrastructures and wireless connections, new mediums of virtual communication, and virtual instructional leadership behaviours.

Internet Infrastructure and Wireless Connections

Internet infrastructure and wireless connections in schools are the heart to the implementation of the virtual instructional leadership. Based on the observations made, all schools have these facilities provided by the Malaysian government. These findings supported by the results of the interview showed that overall all schools are equipped with the internet and wireless connection (WiFi) provided by the government. It usually located in several main locations, such as general offices, teacher's staffroom, and computer labs. However, some schools faced a relatively slow internet connection, as stated by the PGB2S respondent.

"There is WiFi provided by the government, but some schools have relatively slow internet connections" (PGB2S)

The provision of internet infrastructure and wireless connection is also provided in rural schools, but it faced the same problems. PGB4HT respondents said that the connection is also abysmal.

"In terms of internet facilities, it was provided by the government, but it is quite slow maybe because we are in the rural area" (PGB4HT).

The educational expert interviewed also raised the slow internet connections issued when interviewed later. They raised their concern about this issue along with its scheduled maintenance to ensure that teachers have the maximum access to these facilities.

"Most schools have internet infrastructure and wireless connection provided by the MOE. Only in terms of maintenance, repair, and receipt of assets can still be disputed". (PKR2)

New Medium of Virtual Communication

In addition to internet infrastructure and wireless connection, there are few other new mediums of virtual communication in line with the practice of virtual instructional communication. An application such as WhatsApp, Telegram, Twitter, and Facebook page are the few examples of these mediums that are widely used among all the teachers in schools. The findings also showed that these new mediums dominated all the communications being made in the schools, as mentioned by PKR1 and PKR2.

"Nowadays, the used of WhatsApp and Telegram, as well as Facebook, are very dominant in communication between the principals and teachers" (PKR2)

"Personally, the advancement of these technologies in communication is also spreading in other schools. Of course, la...WhatsApp or Telegram". (PKR1)

The findings also showed that the new medium of virtual communication is the main medium of communication between school staff, parents, communities, and stakeholders. PGB8KT stated that:

"My school, early of the year, I have announced the school goals through the school WhatsApp group, PIBG group, parents, and community. Then, I asked the ICT teacher to upload it on the school's official Facebook page". (PGB8KT)

Virtual Instructional Leadership Behaviour

The results of the principal instructional leadership behaviour checklist analysis generally showed that the principal's practice or integrate mobile device technology and new mediums of virtual communication in instructional leadership in schools. These findings indirectly proved that principals are exceptionally attentive to using these new mediums in their instructional practice at schools. However, some of the virtual instructional leadership behaviours are still poorly practiced among principals such as cloud computing and the behaviour of uploading student's achievement into school portals or websites.

Meanwhile, the result of the observations conducted in 48 hours showed that principals practice these behaviours in schools. However, there is one behaviour that is not adequately practiced by the principals, which is the behaviour of uploading student's achievement into the school portal or website that contributed 37.5% to the total percentage. This is due to the factor majority of all the principals being interviewed are using the School Examination Analysis (SAPS) application to view and evaluate student's performance, as stated by PGB5D and PGB7KT.

"100% SAPS". (PGB5D)

"Indeed, we use fully SAPS." (PGB7KT)

However, the educational experts argue that the virtual instructional leadership behaviours occur practically in schools that may be unnoticed by the principals. PKR2 acknowledges this statement.

"Virtual instructional leadership behaviour applies practically in schools." (PKR2)

"For me, it is time for the principal or headmaster to seize the opportunity of this technological advancement to strengthen the virtual instructional leadership." (PKR1)

DISCUSSION

This study conducted to explore the virtual instructional behaviours of secondary school principals in Malaysia. Overall, this qualitative study successfully confirmed that the principals integrated mobile device technologies and new virtual communication mediums in practicing virtual instructional leaderships behaviours in schools. This study also confirmed the proposed dimensions and functions in the virtual instructional leadership behaviours. It also in line with the previous study that there are 41 behaviours in the virtual instructional leadership of school leaders (Ibrahim et al., 2019; Yusof, 2017). The consensus of the interviewed experts also confirmed that the virtual instructional leadership model had a significant implication in the instructional leadership practices in Malaysia. This validation also confirmed two new additional functions in the virtual instructional leadership, namely integrating mobile device technology and involving community support (Yusof, 2017).

By applying virtual instructional leadership skills, the issue of principal's overload with administrative tasks that prevent them from performing their instructional duties can be minimized. The use of mobile device technologies and new virtual communication mediums open up space for the principals to perform their duties in instructional leadership effectively. Indirectly, this model makes a new contribution to instructional leadership practices, especially in the context of the national educational environment.

In addition, this study adds value to the improvement of the existing instructional leadership models. The original instructional leadership model developed by Hallinger and Murphy (1985) can be improved with the addition of this new function of integrating mobile device technology. Acceptance of this function enabled the instructional leadership function to be carried out virtually and thus enhances the communication practices of principals and teachers.

Similarly, the acceptance of this function involving community support in this model is another improvement to the original instructional model of Hallinger and Murphy (1985). The acceptance of this function also coincides with the government aspirations in the ninth shift of the Education Development Plan (PPPM, 2013-2025), which requires parents, community, and the private sectors to collaborate with schools. Through this model, one of the elements that drive cooperation with the community is through new mediums of virtual communication. The new medium of virtual communication opens up an ample space for principals to interact with the community, parents, alumni, the private sectors, and stakeholders.

Furthermore, the findings of this study also indicated that the practice of instructional leadership in schools evolved. In line with the advancement of information and communication technologies, mobile device technology, internet infrastructure, and new virtual communication mediums had transformed the traditional instructional leadership practices to a new era of virtual instructional leadership. This phenomenon will bring new changes to the principals in practicing instructional leadership at schools as they will carry out their instructional leadership without having to face the teachers directly.

CONCLUSIONS

In general, this study successfully validated the instructional leadership behaviours of school leaders according to the dimensions and function proposed. The proposed dimensions are defining goals, managing school instructional programs, and forming a positive school climate. While the proposed functions are setting school goals, explaining school goals, supervise and evaluate teaching, monitor students' progress, integrate mobile device technology, provide incentives to teachers, provide incentives to students, and involve in community support.

The acceptance of the functions of integrating mobile technology in virtual instructional leadership seen as an alternative way of practicing new norms in instructional leadership during this pandemic of Covid-19. The virtual instructional leadership behaviours are well suited to be practiced by the principle during the implementation of the Movement Control Order (MCO) and the introduction of work from home by the Malaysian government. The use of these technologies' advancement and new virtual communication mediums open a new opportunity for the principals to practice instructional leadership from a new perspective. Thus, principals can form active communication networks regardless of time and geographical limitations. This situation indirectly will form a virtual community in the school's culture.

Virtual instructional leadership behaviours also open up space for principals to engage the community in achieving the vision and mission of the schools. The acceptance of the function of community support demanding the parents, community, and the private sectors are working together with the schools. Behaviours that drive collaboration with the community through the new medium gave the advantage to the principals to interact with the community, parents, alumni, private sectors, and

stakeholders without limitation. This definitely will make communication much more comfortable than before.

In the context of educational policy improvement, the findings of this study can suggest these additional dimensions and functions improve the virtual instructional leadership practices among principals in Malaysia. The proposed model can be used by the Ministry of Education Malaysia (MOE), Ministry of Higher Education (MOHE) through their respective departments such as the Aminuddin Baki Institute (IAB), Teacher Education Institute (IPG) and educational faculties in Public Institutions of Higher Learning (IPTA) to improve the curriculum of school leadership courses and principal courses especially in the aspect of virtual instructional leadership. It is also proposed that the MOE can use this model to reduce the administrative tasks of the school's principals as it will prevent the principals from functioning effectively with the original instructional leadership skills. Finally, further in-depth research suggested being carried out with other populations or countries to strengthen this virtual instructional leadership model.

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