

Virtual Instructional Leadership and Teachers' Teaching Competency: Mediated by Communication Pattern

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Abstract

Communication is one of the main elements in determining the success of an organization. At school, effective communication between principals and teachers is very important in determining school effectiveness, especially in the aspect of teaching and learning. Yet, the school principals are very much occupied with routine managerial and administrative tasks which have inevitably limit the effective communication between principals and teachers. The study was aimed to identify the influence of the communication pattern toward virtual instructional leadership and teachers' teaching competencies. Data from 352 respondents collected through questionnaire were analysed using AMOS version 22. The finding showed that the indirect effect value of virtual instructional leadership toward teachers' teaching competencies ($\beta=.369$) is smaller than its total effect ($\beta=.582$). This indicated that the communication pattern has some influence on virtual instructional leadership. Finally, this study has successfully developed a model depicting the relationship between virtual instructional leadership and teacher teaching competency.

Key word: *Virtual Instructional Leadership, Communication Pattern, Teachers' Teaching Competency, Social Media, And Digital Leadership*

Introduction

Basically, communication is a process of exchanging important messages, share ideas and feelings with each other (Dominick, 2013; Hoy & Miskel, 2013; Miller, 2006). Communication process normally entails the following elements: source, encoding, message, channel, decoding, noise interference, the receiver and feedback (Dominick, 2013). Now days, the increasing technology have led to changes in the way people communicate including school leaders.

In the context of a world without boundaries, integration of mobile technology devices such as smartphones, tablets and laptops and the use of social media applications has sparked information transmission revolution (Supyan, 2014). Communication takes place regardless of geographical boundaries and time (Zahiah & Abdul Razaq, 2010).

Scholars have agreed that effective communication is essential in improving the effectiveness of an organization (Dominick, 2013; Miller, 2006; Pace & Faules, 2002; Sarah, Afzahanee, & Rosliza, 2014). In schools, communication is the heart of interaction especially

between principals and teachers and school staff. Effective communication is essential in improving teachers' teaching competencies in classroom.

In addition, effective school leadership is a major factor in the success of a school (Hornig & Loeb, 2010; Hoy & Miskel, 2013; Zaidatol Akmaliah & Foo, 2003). Principals should perform the function of instructional leadership comprehensively in order to establish effective communication network. This enables principals to discuss and guide teachers towards improving the competence of their teaching (Hallinger & Walker, 2011; Mat Rahimi & Mohd Yusri, 2015b; Mattar et al., 2013; Mohd Yusri & Aziz, 2014a).

Problems Statement

Studies by researchers over the past decade generally indicated that communication plays an important role in improving job performance and job satisfaction (Ahmad Jawahir, Rosli, & Kalthom, 2011; Asmia Ayu, 2013; Contartesi, 2010; Kamaruzaman, 2012; Mohd Yusri, 2015; Mohd Yusri & Aziz, 2013; Muzawir, 2010; Narimah & Saodah, 2003; Nor Azlina, 2010; Pace & Faules, 2002; Schmidt, 2014; Zulch, 2014).

Apart from communication, the leadership influence is very important in improving school effectiveness (Bity Salwana, Ahmad Basri, Ramlee, & Mohammed Sani, 2010; Glickman, Gordon, & Ross-Gordon, 2009; Nor Asikin, 2011; Stogdill, 1974). Principal should always communicate, discuss and guide teachers to improve teaching and learning competencies in the classroom.

However, in reality principals in Malaysia are very occupied with managerial and administrative tasks causing poor communication especially between principals and teachers. Review from local researchers showed that principals use 60% to 68% of their time for administrative activities (Azlin Norhaini, Jamalullail, Mohd Izham, & Norhayati, 2011; Hamzah, Wei, Ahmad, Hamid, & Mansor, 2013; Mat Rahimi & Mohd Yusri, 2015; Mohd Yusri & Aziz, 2014) or only 25% of their time were used to manage the curriculum and teaching supervision (Arsaythamby Veloo & Komuji, 2013; Hamdan & Nurlia, 2013).

The phenomenon affects the principals' function as instructional leaders in schools. Instructional leadership functions has not been satisfactorily implemented, especially in terms of supervising and evaluating teachers (Azlin Norhaini, Jamalullail, Hamzah, & Norhayati, 2013; Hallinger & Walker, 2011; Jamelaa Bibi & Jainabee, 2011; Mattar et al., 2013).. Principals lack the time to discuss and guide teachers towards improving the teaching competence (Azlin Norhaini et al., 2011; Jamelaa Bibi & Jainabee, 2011; Jamilah & Yusof, 2011; Mat Rahimi & Mohd Yusri, 2015c; Nor Azni, Foo, Aminuddin, & Soaib, 2014).

Based on problems, local researchers suggested that principals need to enhance their communication patterns in the school. With the rapid development of information and communication technology (ICT), mobile technology, internet and social media applications, communication becomes easier (Khalfalla & Che Su, 2014; Sarah et al., 2014; Siti Ezaleila & Azizah, 2010). Principals can communicate without restrictions of time and distance. However, the extent to which principals communication through ICT has influence on the contribution of virtual instructional leadership on teachers' teaching competence is still debatable.

Research Question and Hypothesis

In general, this study aims to identify the impact of the communication pattern towards the relationship between virtual instructional leadership and teachers' teaching competency. In particular, this study aims to answer the following research question and hypothesis:

Research question:

Do communication patterns mediate the relationship between virtual instructional leadership and teacher competence?

Research hypothesis:

Communication patterns mediate the relationship between virtual instructional leadership and teachers' teaching competence.

Literature Review

Literature shows that scholars have agreed that effective communication can contribute to organizational effectiveness (Miller, 2006; Sarah et al., 2014). Time has changed the way people communicate. Rapid development in information and communication technology, mobile technology and new communications applications has eased communication (Che Su & Nan Zakiah, 2014; Matthews & Lloyd, 2004; Siti Ezaleila & Azizah, 2010). Recently researchers indicated that social media has gained the highest place as a new medium of communication (Khalfalla & Che Su, 2014; Kujbus & Gati, 2013; Nah & Saxton, 2013).

The new medium of communication also influences the school leaders' communication patterns and leadership practices in Malaysia or abroad. The E-leadership model shows that the group communication significantly influences the interaction between e-leadership and job satisfaction kerja (Mohd Yusri & Wan Abdul Aziz, 2013). In addition, in a survey of 1082 respondents, it was found out that principals', head masters', assistant principals', subject heads' and department heads' virtual leadership in Malaysia contributed positively to the group communication patterns (Mohd Yusri & Aziz, 2014b).

In New York, the new medium of communication also affects school leaders' leadership practice. Most school leaders use *iPad* for supervising teachers (Sheninger, 2014). The program, which is synonymous with the Bring Your Own Device (BYOD) or Bring Your Own Technology (BYOT) requires instructional leaders to be proactive in implementing the technology (Avolio, Kahai, & Dodge, 2000; Sheninger, 2014).

Research Conceptual Framework

The research conceptual framework as shown in figure 1.

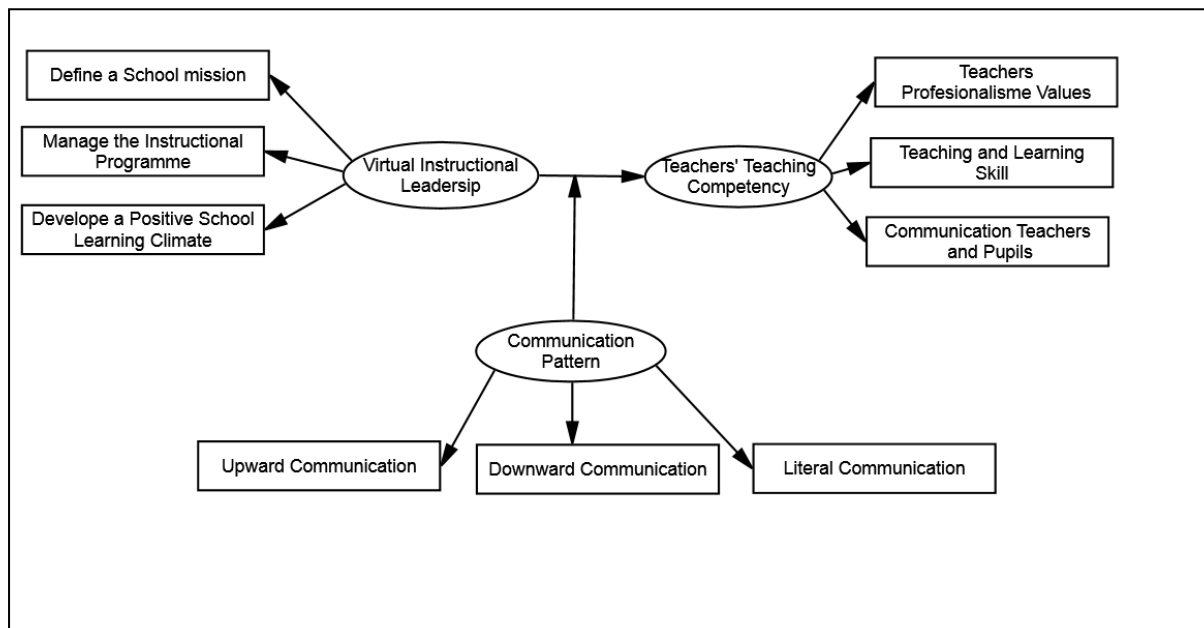


Figure 1: Research conceptual framework

Figure 1 illustrated that virtual instructional leadership is the independent variable, the teachers' teaching competency is the dependent variable and communication patterns is the mediating variable. The communication pattern is expected to affect virtual instructional leadership and teaching competency.

Research Methodology

This quantitative study used a cross sectional (Gay, Mills, & Airasian, 2011; Lodico, T., Dean, Spaulding, & Voegtler, 2010) design whereby a modified questionnaire was used as the instrument. For virtual instructional leadership using PIMRS (Hallinger & Murphy, 1985) communication pattern using *The Communication Satisfaction Questionnaire (CSQ)*; (Downs & Hazen, 1977) and teachers' teaching competency using *Measures of Teacher Effectiveness* (McBer, 2001).

Data were collected from 352 respondents who were secondary school teachers in Malaysia. They were selected using stratified random sampling techniques and sample size was determined through Krejcie and Morgan formula (1970). Data were analysed using Structural Equation Model (SEM) aided by AMOS 22 to identify the effect of the communication pattern on the relationship between virtual instructional leadership and teacher competence.

Full and partial mediation methods were used to test the effect of the mediators on the relationship between the predictor variables and the response variable. For the full mediation method, the model was first run without the mediator, followed by the model with the mediator. If the chi-squared (χ^2) value of the model with the mediator is smaller, it indicates that the mediator affects the relationship between the predictor variable and the dependent variable (Mohd Yusri, 2012; Baron & Kenny, 1986).

For partial mediation method, the indirect effect was compared to the total effect. The value of the total effect, direct effect and an indirect effect were observed. If the indirect effect is less than or equal to the full effect, it means that the mediator affects the

relationship between the predictor variable and the dependent variable (Mohd Yusri; 2012; Shrout & Bolger, 2002; MacKinnon et al, 1995; MacKinnon & Dwyer, 1993).

Research Finding

1. Respondents Demographic

Respondents comprised of 110 or 31.3% male and 242 or 68.7% were female. The majority of them in terms of grade were in their DG44 (131 or 37.2%), while the rest were DG 41, DG 42, DG 52 and DG 54. However, there are four respondents or 1.1% of respondents who were in DG29-38.

Communication Patterns As Mediator In the Relationship between Virtual Instructional Leadership and Teachers’ teaching Competency

To answer this question and hypotheses, partial mediation and full mediation were run using AMOS software. Table 1 shows the total effect, direct effect and indirect effect.

Table 1: The total effect, direct effect and indirect effect values

	Total Effect			Direct Effect			Indirect Effect		
	VIL	CP	TTC	VIL	CP	TTC	VIL	CP	TTC
1. CP	0.831	.000	.000	0.832	.000	.000	.000	.000	.000
2. TTC	0.577	0.472	.000	0.184	0.472	.000	0.392	.000	

CP=Communication Pettern, TTC= Teachers’ Teaching Competency, VIL= Virtual Instructional Leadership

The findings showed the value of the indirect effects of virtual instructional leadership contributions to the dependent variable, teaching competence ($\beta = .392$) was smaller than the full effect ($\beta = .577$). This finding indicated that the variable teachers’ teaching was influenced by the mediating variable, communication patterns. Thus the hypothesis is accepted .

To further confirm the role of communication as a mediator in relations virtual instructional leadership and teachers’ teaching competency, a model without the mediating communication pattern variable was tested. For comparison, the Chi-square value was observed. Results showed that the chi square value of the model without the moderator is bigger than the model with the moderator. This clearly indicated that the model with the moderator is a better model.. Table 2 displayed the summarised fitness indices for both models.

Table 2: Comparison of fit indexes

Fit indexes	Suggested Fit Indexes Value	Without Moderator	With Moderator
χ^2	-	5648.37	5418.768
Sig χ^2	>0.05	.000	.000
DF		2679	2677
Ratio (CMIN (χ^2)/DF)	< 5.0	2.109	2.024
RMSEA (Root Mean Square Error of Approximation)	<0.08	0.056	0.054
Incremental fit			
CFI (Comparative Fit Index)	>0.90	0.845	0.857
Parsimony fit			
PNFI (Parsimony Normed Fit Index)	>0.50	0.717	0.727
PCFI (Parsimony Comparative of Fit Index)	>0.50	0.816	0.827

Finally an interaction model of virtual instructional leadership, communication pattern and teachers' teaching competency was developed based on finding as illustrated in figure1.

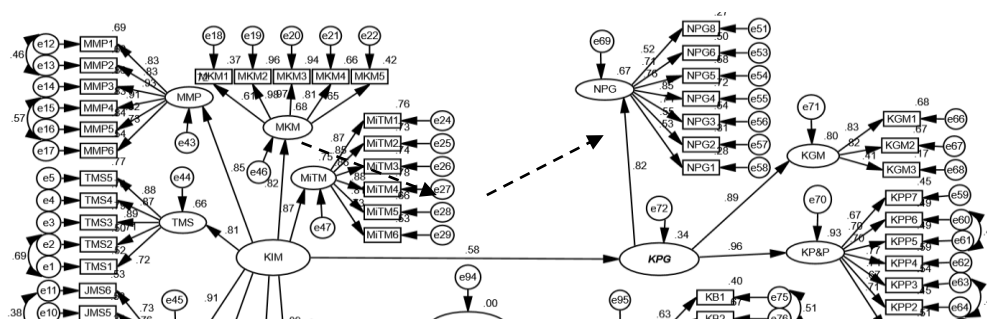
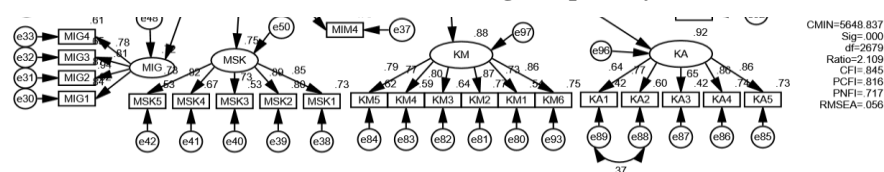


Figure 1: The interaction model of virtual instructional leadership, communication pattern and teachers' teaching competency



Generally based on figure 1 and earlier discussion, the findings showed that the contribution of virtual instructional leadership on teachers' teaching competency variable is influenced by a mediating variable namely communication patterns. This finding means that if communication pattern increases the contribution of virtual instructional leadership of teachers' teaching competency also increases.

Conclusion

Overall, this study was successfully developed the interaction model of virtual instructional leadership, communication pattern and teachers' teaching competency. Apart from supporting the findings of earlier research, provides a meaningful contribution in the context of the communication patterns among principals in Malaysia. With the new medium of communication, communication weaknesses due to busy administrative tasks could be minimized. The communication pattern between principals and teachers is increasing and hence influences the virtual instructional leadership contributions to teachers' teaching competency. In other words they need to be constantly and actively communicating with teachers to discuss and guide the improvement of teacher teaching competency. In addition, the findings also bring about major implications to the practice of instructional leadership.

These findings proved that a new medium of virtual communication also influence the communication patterns of school leaders in Malaysia .The new technology of communication has brought an evolution in communication patterns principals and teachers. In other words communication principals and teachers are no longer limited face t-face communication only. Principals and teachers can interact at any time. Principals can discuss and guide teachers to improve their teaching competence.

The influence of the communication pattern on the relationship between virtual instructional leadership and teachers' teaching competency opens up greater opportunity for principal to perform their instructional leadership functions, especially in terms of supervising and evaluating teachers. The integration of mobile technology and new applications in communication patterns enables these tasks be performed virtually. This practice is in line with teaching supervision practiced in developed countries whereby school administrators use the iPad for supervising teachers..

Finally, based on previous research showed that effective communication is essential in improving the effectiveness of the school, the principal must seize this opportunity to strengthen the knowledge and skills of new communication technologies. The developed model is expected to provide an alternative to the principals in performing their communication patterns and instructional leadership function virtually and ultimately guides teachers to improve teaching competency.

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