

Student-Centered Leadership and Teachers' Competency in Integrating Frog VLE in Teaching and Learning

Ahmad Muhaimin Mat Jusoh*, Kazi Enamul Hoque, Muhammad Faizal A. Ghani

Department of Educational Management, Planning and Policy

University of Malaya, Kuala Lumpur, Malaysia

*muhaiminmj@gmail.com, keh2009@um.edu.my, mdfaizal@um.edu.my

Abstract—This study aims at examining the relationship between student-centred leadership and teachers' competency in using Frog VLE in Pudu Zone primary schools in Kuala Lumpur. This is a non-experimental quantitative research using survey technique through the administration of a set of questionnaires on teachers' demographic variables, student-centred leadership and teachers' competency in using Frog VLE. Some 152 returned questionnaires have been analyzed. The findings showed that teachers in Pudu Zone primary schools perceived that their principals have a high level of student-centred leadership however they rated themselves as having a medium level of ICT competency. Furthermore, data indicated a statistically significant positive but very weak correlation between student-centred leadership practices and teachers' competency. In addition, the independent t-test analysis showed that there are significant differences between student-centred leadership in terms of gender but no significance differences between teachers' competency in terms of gender. This study will benefit most towards the policymakers in the Ministry of Education, the headmasters in school and the teachers.

Keywords—*student-centered leadership; teachers' competency; frog VLE; primary school*

I. INTRODUCTION

Leadership is a wide and complex concept various interpretation have been made by researchers, east and west, of the leadership concept. P. Hersey define leadership as a process of influencing subordinates to achieve organizational objective [1]. M. Jaafar stated that leadership is the art of influencing human activities associated with them so that they actively working towards achieving organizational goals [2]. Therefore, leadership can be concluded as a process of influencing subordinates to work towards the organizational goal which is led by a school leader.

Today, there are many kinds of leadership such as transformational leadership, instructional leadership, cultural leadership, primal leadership, constructivist leadership, servant leadership, and moral leadership. However, there is no single leadership style is ideal for an organization. Based on the situation, principals or headmasters as school leaders can use any of these leadership style which can have significant effects towards the members of school's organization, especially

teachers and student. C. Day rightly describe that, school's leaders are responsible for the learning and achievement of the school organization [3]. V. M. Robinson also emphasizes that headmaster as leader does have direct bearing on students' achievement [4]. Hence, when the headmaster concern about their students, he or she strive their best to provide the necessity needed to improve student's achievement. It indicates that, student-centred leadership is useful to bring success.

In student-centred leadership, there are five dimensions proposed by V. Robinson which had been used in this study [5]. These dimensions are establishing goals and expectations; resourcing strategically; ensuring quality teaching; leading teacher learning and development and ensuring an orderly and safe environment. In dimension establishing goals and expectation, it is expected that the leader should be able to set a clear goal of the organization and this is supported by K. Wahlstrom [6], successful leadership practices in school is where the leaders and teachers together focusing on the schools' goal and having an expectation on students' performance. In resourcing strategically, the strategic use of resources must be aligned to the objective of learning to achieve to avoid the waste of fund allocated [7]. In ensuring quality of teaching, school leaders expected to provide learning opportunities for the teachers to enhance their knowledge and competencies in using technology in teaching and learning. Continuous professional learning process can happen towards the leaders and teachers, where the leaders can identify and improve on the implementation and values of this dimension towards the teachers and the school's environment and the teachers can improve on their weakness in teaching session [8]. Lastly, teachers and pupil should feel physically and psychologically safe in order for the improvement of teaching and learning to occur.

In this study, student-centred leadership focus is to make the learning experiences becomes meaningful towards students. To achieve that, it is vital for a leader to create an environment which support best performance of a community involve within school compound, teachers and students. Hence, leader in school or headmaster, need to motivate their teacher to become an active learner and always working on an improvement of their work for the benefits of students' performance. Student-centred leadership emphasize on building an understanding and

meaning in a learning rather than just completing the tasks [9]. Teaching and learning become more meaningful, and student become an active learner in the classroom. This in turn will encourage not only students but also teachers to have high confidence in their teaching and learning process.

Besides that, student-centred leadership helps teachers to come up with clear plans and visions on pedagogical use of ICT in the classroom by providing necessary digital infrastructure and healthy working environment which indirectly produce digital-student [10]. In education field, ICT has been widely used and proven could improve the level of education system as well as produced competent students globally, especially in this 21st century era. To cope with the 21st century learning era, Ministry of Education has leveraged the implementation of ICT in teaching and learning to scale up the quality of learning across Malaysia [11]. It is undeniable that teaching, learning and research has been affected directly by the integration of ICT in educational field [12]. In a rapidly changing world, it is an essential for a teachers and pupils to empower the basic education of ICT that enable them to access and apply the information.

Therefore, Ministry of Education Malaysia in collaboration with IBestarinet, has introduce Frog Virtual Learning Environment (VLE) which acts as a platform for the teaching and learning to occur virtually [11]. By using this platform, students are able to learn productively.

However, the integration of Frog VLE is still lacking although there were many initiatives made by the government in integrating Frog VLE into our education system. The cause of this problem when most of the teachers always have difficulty due to low level of competency in using Frog VLE in teaching and learning. One of the reason teachers' low competency to computer use is because of lack of support from the leader, [13] as in my study, the headmaster. Leaders play a role in providing the teacher with a good technical equipment of technology to support the use of technology in teaching and learning. Teachers' competency in technology integration increasing as they successfully use the technical equipment appropriately, hence their level of competency in integrating it increases. In terms of leadership competency, there are differences between male and female [14]. [15] said, female leader shows more active leadership compared to male leaders which is supported by [16] who added even though it showed small but statistically significant effect. In study conducted by [17] stated that, there are statistically significance difference between male and female teachers in terms of ICT competency which favour towards male teachers. This result has been presumed as previous study found male teachers prone to consider themselves more competent than female teachers in terms of ICT skills [18,19].

The following questions have been sought to achieve the purpose.

- Is there any correlation between student-centred leadership and the teachers' competency in using Frog VLE in teaching and learning in primary school of Pudu Zone, Kuala Lumpur?

- Is there any significance difference of student-centred leadership practices among headmasters in terms of gender and years of teaching?
- Is there any significance difference of teachers' competency in using Frog VLE in terms of gender and years of teaching?

II. METHODOLOGY

A. Research Design

This study used a quantitative approach.

B. Sampling and Population

The population of this study was a 55 primary schools in Pudu Zone, Kuala Lumpur. Firstly, the number of primary schools in Pudu Zone were identified to attempt fairness in choosing the school according to the location of the school within Pudu Zone. There are 1650 teachers are teaching at primary school in Pudu Zone. Based on [20], 310 teachers should be choose as a respondent. However only 200 teachers were randomly selected as respondent. Out of these 200 teachers, 152 respondents sent the correct questionnaire. Since this is descriptive research, hence 10% of selected population is enough to generalize the population [21].

C. Instrumentation

This study aimed at examining correlation between leadership style and Frog VLE integration in teaching and learning and differences in term of gender for both variables. The questionnaire has been used to collect information and built based on two sources. For section B, Student-centred leadership questionnaire, it was adapted from [5] and Section C, Teachers' Competency in Using Frog VLE questionnaire, originally designed by [22], which has been adapted to the suitability of this research. The details of each section were summarized in Table 1.

TABLE I. DESCRIPTION ON THE SECTIONS OF THE QUESTIONNAIRE INSTRUMENTS

Section	Description	Number of items
A	Demography	5
B	Student-Centred Leadership	18
C	Teachers' Competency	14
	TOTAL	37

Pilot study was conducted to determine validity and reliability of instruments and the result shows that Cronbach Alpha is 0.929 and standard item for a Cronbach alpha is 0.986. The instruments are found highly reliable. Content validity of the instruments was ensured by expert's opinions.

This study was conducted as soon as researcher received a permission letter from Educational Planning and Research Division (EPRD), Ministry of Education and Federal Education Office. The process to collect the data has been conducted in two ways which are, by using google form and self-collection at schools involved. A cover letter, informed the participants that the aim of this research was to examine student-centred

leadership and teachers' competency in using Frog VLE in teaching and learning and this questionnaire will be collected again in the next seven days. By using google form, the researcher first made a phone call to headmaster to inform about the study being conducted. After that, a link which consists of cover letter and set of an online questionnaire has been distributed towards selected school. All the responds were automatically recorded in the google excel sheet. The samples were assured that their participation would be kept confidentiality and strictly used for academic purpose only.

Data were analyzed using Statistical Package for the Social Science (SPSS) version 21. This study using correlation's design which descriptively explain about correlation analysis, Spearman's Rho, to identify the correlation between student-centred leadership and teachers' competency in integrating Frog VLE in teaching and learning. The inferential statistics of t-test used to determine the difference of student-centred leadership and teachers' competency in using Frog VLE in terms of gender.

III. RESEARCH FINDINGS

TABLE II. CORRELATION BETWEEN STUDENT-CENTRED LEADERSHIP AND TEACHERS' COMPETENCY IN USING FROG VLE IN TEACHING AND LEARNING

			Student-centred leadership	Teachers' competency
Spearman's rho	Student-centred leadership	Pearson Correlation	1	.195*
		Sig. (2-tailed)	.	.016
		N	152	152

*. Correlation is significant at the 0.05 level (2-tailed).

Table 2 showed that there was a significant relationship between the student-centred leadership and teachers' competency in using Frog VLE in teaching and learning $r = .195$ and $sig. = .016$ ($p < 0.05$). Therefore, the null hypothesis stating student-centred leadership is not correlated with teachers' competency in using Frog VLE were rejected at the significance level of .05. Therefore, the data provide sufficient evidence to conclude that there is a significant correlation between the student-centred leadership and teachers' competency in using Frog VLE in teaching and learning.

To answer differences of student-centred leadership in terms of gender, an independent sample t-test was used to determine whether score mean of student-centred leadership of male respondents significantly difference with score mean of student-centred leadership of female respondents. Assumptions of normality were tested and met for the distribution of the student-centred leadership of male respondents. Analytic test S-W for normality ($SW = .858$, $df = 39$, $p = .000$) and statistical skewness (-1.565) and kurtosis (4.276) suggested that normality score of student-centred leadership of male respondent is an accepted assumption. Assumptions of normality also were tested and met for the distribution of the student-centred leadership of female respondents. Analytic test K-S for normality ($KS = .138$, $df = 113$, $p = .000$) and statistical skewness (-.271) and kurtosis (1.096) suggested that normality score of student-centred leadership of female

respondent is an accepted assumption. Table 3 shows the independent sample t-test for student-centred leadership.

TABLE III. INDEPENDENT SAMPLE TEST

Group	N	Mean	Standard Deviation	t	df	Sig. (2-tailed)
Male	39	3.19	.60	.853	51.13	.397
Female	113	3.10	.41			

Based on Levene test, equal variances not assumed ($F = 4.644$, $p = .033$). Based on independent t-test conducted, the result shows that student-centred leadership of male respondents ($M = 3.19$, $SD = .60$) student-centred leadership of female respondents ($M = 3.10$, $SD = .41$) is not significant, $t(150) = .397$, $p = .853$. Therefore, the result shows no significance differences student-centred leadership of male respondents and female respondents at significance level of .05.

To answer differences of teachers' competency in using Frog VLE in teaching and learning in terms of gender, an independent sample t-test was used to determine whether score mean of teachers' competency in using technology in the classroom of male respondents significantly difference with score mean of teachers' competency in using technology in the classroom of female respondents. Assumptions of normality were tested and met for the distribution of the teachers' competency in using technology in the classroom of male respondents. Analytic test S-W for normality ($SW = .909$, $df = 39$, $p = .004$) and statistical skewness (-1.299) and kurtosis (3.949) suggested that normality score of teachers' competencies in using Frog VLE in teaching and learning of male respondent is an accepted assumption. Assumptions of normality also were tested and met for the distribution of the teachers' competency in using technology in the classroom of female respondents. Analytic test K-S for normality ($KS = .149$, $df = 113$, $p = .000$) and statistical skewness (-.306) and kurtosis (.910) suggested that normality score of teachers' competencies in using technology in the classroom of female respondent is an accepted assumption. Table 4 shows the independent sample t-test for teachers' competency in using Frog VLE in teaching and learning.

TABLE IV. INDEPENDENT SAMPLE TEST

Group	N	Mean	Standard Deviation	t	df	Sig. (2-tailed)
Male	39	2.80	.48	.192	150	.848
Female	113	2.78	.62			

Based on Levene test, equal variances assumed ($F = 2.152$, $p = .145$). Based on independent t-test conducted, the result shows that teachers' competency in using technology in the classroom of male respondents ($M = 2.80$, $SD = .48$) teachers' competency in using technology in the classroom of female respondents ($M = 2.78$, $SD = .62$) is not significant, $t(150) = .192$, $p = .848$. Therefore, the result shows no significance differences teachers' competency in using technology in the classroom of male respondents and teachers' competency in

using technology in the classroom of female respondents at significance level of .05.

IV. DISCUSSION

The findings of this research show that there is statistically significant correlation between student-centred leadership and teachers' competency in using Frog VLE in teaching and learning in primary school of Pudu Zone, Kuala Lumpur. The result of Pearson analysis shows that, there is correlation between student-centred leadership and teachers' competency in using Frog VLE in teaching and learning.

This finding is in line with the findings by [23] stated that, headmaster's leadership does have relation with teachers' commitment at few school of SJK(T) in Shah Alam. Besides that, research by [24] stated that there is a significant correlation between transactional leadership and subordinates' trust. When subordinates trust their leader, they will be more committed in delivering their job to achieve initiated goal.

The findings on significance difference showed there is significance difference between student-centred leadership towards teachers' genderism of primary school in Pudu Zone, Kuala Lumpur. This is supported by previous study stated, female leaders showing more active leadership in school compared to male leaders, even though the result is significantly small effect [25]. Besides that, [26] stated that female leaders practice more leadership skills of decision making, individualize consideration, and interpersonal interaction compared to male leaders.

However, findings on significance difference show that there is no significance difference between teachers' competency in using Frog VLE in teaching and learning towards teachers' gender of primary school in Pudu Zone, Kuala Lumpur. Researcher's think, this finding shows there is no discrimination in terms of gender, male teachers or female teachers, where both genders together in using Frog VLE teaching and learning, in primary schools of Pudu Zone, Kuala Lumpur to enhance students' performance academically. Finding does not shows male teachers' competency in using Frog VLE in teaching and learning better than female teachers' competency in using Frog VLE in teaching and learning. [27], stated that male teachers are more motivated compared to female teachers. However, based on research made by S. Ghavifekr [28] showed, the use of technology by male teachers are higher compared to female teachers. However, the awareness of using technology in the classroom are rising from female teachers compared to male teachers [29].

V. CONCLUSION

This research proves that there is significance correlation between student-centred leadership and teachers' competency in using Frog VLE in teaching and learning in primary schools of Pudu Zone, Kuala Lumpur. Besides that, this research also shows that there is significance difference between student-centred leadership and teachers' competency in using Frog VLE in teaching and learning in terms of gender.

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