THE SERVANT LEADERSHIP ATTRIBUTES AMONG SUBJECT LEADERS IN MALAYSIA: AN EXPLORATORY FACTOR ANALYSIS

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ABSTRACT

Despite the growing interest in clarifying the nature of servant leadership, there is a lack of consensus on the operationalization of servant leadership, most notably in school context. Considering this, this article presents an Exploratory Factor Analysis (EFA) on this literature gap. By designating subject leader (Guru Kanan Mata Pelajaran) as servant leader–as suggested by the literature, 90 items were developed to measure the attributes of Teacher Capacity Building, Stewardship, Accountability, Self-competence, Compassion, Altruism and Shares Leadership among these unit of analysis. Data from 63 and 608 teachers from the first and second pilot test respectively was used to test the internal consistency and explore the latent factors of these attributes. Results indicated that only five factors i.e. attributes namely Self-competence, Shares Leadership, Accountability, Teacher Capacity Building and Stewardship was fit in delineating servant leadership attributes among these subject leaders. Critically, solid factor structures and good internal consistency across these factors indicated these attributes were tenable for school context in relation to subject leadership.

INTRODUCTION

Leadership position is endowed with power and power sometimes lured people into insatiability, narcissism or even victimization on others for personal gain (Harris, 2014; Levine & Boaks, 2014; Maner & Mead, 2010). Therefore, morality concern

in leadership is important (Hassan, Wright, & Yukl, 2014; Levine & Boaks, 2014; Olesia, Namusonge, & Iravo, 2013) and educational leadership is no exception because teaching is a noble profession in much the same way as religious profession (Ibrahim Ahmad Bajunid, Kamis, & Singh, 2008). Hence, educational leaders are always expected to exhibit noble virtues just as the religious figures need to be regarded as a righteous one (Ibrahim Ahmad Bajunid et al., 2008).

Therefore, it is crucial for Malaysian education system to create deeper understanding of servant leadership for the cultivation of good, reasonable personalities (Ibrahim Ahmad Bajunid, 2008) as it is a type of leadership that is linked to ethics, virtues and morality (Hackett & Wang, 2012; Monahan, 2012; Parris & Peachey, 2013). Intriguingly, although the study on servant leadership revolved around conceptual, measurement and model development (Parris & Peachey, 2013) nonetheless it has been found that there was a lack of consensus regarding the specific properties of servant leadership (Coetzer, Bussin, & Geldenhuys, 2017; Parris & Peachey, 2013; Van Dierendonck, 2011; Van Dierendonck & Nuijten, 2011).

Keeping this in view and considering the fact that leadership must be contextually-related in that it must be understood and developed within the context of workplace (Dalakoura, 2010; Harris, 2014; Spillane, Halverson, & Diamond, 2004) hence this research takes the initiative to derive a set of school context related servant leadership constructs and subsequently explore its latent structures in school setting.

LITERATURE REVIEW

Servant leadership was coined by Robert Kiefner Greenleaf (1904-1990) in his seminal essay entitled "The Servant as Leader" (1970). It asserts that leaders should always put others' needs, aspirations and interest above their own and they always view themselves as "servants" whom are committed to the well-being of their followers rather than a leader that always command-and-control their followers (Barbuto & Wheeler, 2006; Dennis & Beach, 2005; Laub, 1999; Liden et al., 2008; Page & Wong, 2000; Sendjaya et al., 2008; Van Dierendonck, 2011). This underlying "motivation to serve" distinguishes servant leadership from other existing leadership theories (Sendjaya & James, 2002).

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Interestingly, Greenleaf did not suggest any specific attributes for servant leadership (Rachmawati & Lantu, 2014; Van Dierendonck, 2011). Although numerous researchers had proposed various attributes thereafter nonetheless all these attributes were not customized to school context (Coetzer et al., 2017; Teh, 2017). Although there were several servant leadership studies which were carried out in school context however most of these researches were either engaging the attributes suggested by previous servant leadership scholars – which were non-educational context related in nature (Bowman, 2005, 2014, Cerit, 2009, 2010; Stoten, 2013); or employing prescriptive approach in relating the relevance of servant leadership to school context (Crippen, 2005, 2010) without suggesting a clear set of educational context attributes.

While this could be construed as the case, an extant review on the servant leadership literature had revealed that all of the servant leadership attributes suggested by the scholars somewhat suggested the educational attributes of *Teacher Capacity Building (TCB), Stewardship (STW), Accountability (ACT), Self-competence (SEC), Compassion (CMP), Altruism (ALT)* and *Shares Leadership (SHL)* (see Teh, 2017, for more description). In this sense, since literature suggested that subject leaders (Guru Kanan Mata Pelajaran or Ketua Bidang) are servant leaders and there was a lack of studies to address this concern (Brown & Rutherford, 1998; Leithwood, 2016; Tajuddin Mohd Yunus, 2012) therefore this study is set to fill this literature gap. Besides, subject leaders are middle leaders and the fact that middle leaders always act as a "conduit" or "servant" in serving the senior management team (e.g. principal, senior assistants etc.) and teachers' curriculum management work needs while they are also expected to be a "leader" in leading teachers in professional learning (Ghamrawi, 2013; Gurr & Drysdale, 2013; Ministry of Education Malaysia [MOE], 1992; Mohammed Sani, 2013; Peter, 2000) thus this somewhat suggested the relevance of servant leadership for subject leaders. Therefore, the operational definitions for these attributes are defined as follows.

Teacher Capacity Building (TCB) refers to the focus by the subject leader to transfer competencies necessary for teachers and groups in order to identify their issues and subsequently address their concerns in performing tasks. *Stewardship (STW)* refers to the focus

subject leader to realize social responsibility and to build community at organizational level and societal level. While *Accountability (ACT)* is the subject leader's willing acceptance of the responsibilities inherent in the leadership position to serve the organization guided by implicit or explicit expectation that the subject leader will portray congruence between behaviour and communications and more importantly, the school leader is able to justify his or her beliefs, decisions or actions to constituents with sound reasons.

For *Self-competence (SEC)*, it refers to the degree the subject leader is cognitively, emotionally and socially competent in carrying out organizational tasks. *Compassion (CMP)* is the displaying of sympathy followed by actions to relieve emotional distress or physical discomfort amongst teachers by providing emotional support, work flexibility or even material. *Altruism (ALT)* is a pro-social attitude that is characterized by the sacrifice of personal interest to help teachers and optimize teachers' interest with no expectation for reward. Lastly, *Shares Leadership (SHL)* refers to the encouragement to teachers to manage work problems personally, lead others, share and coordinate tasks with others in task accomplishment and decision making process based on a shared purpose.

METHODOLOGY

After an extensive literature review, a total of 101 items were generated based on the definitions above and the rating scale used was Likert ordinal scale ranging from 6 (strongly agree) to 1 (strongly disagree) to form an instrument. Next, the instrument was sent for expert validation. The panel of experts consists of five experts whom possess extensive knowledge on measurement along with in-depth experience in educational leadership and management (ELM) (DeVellis, 2013; Masuwai Azwani et al., 2016). Among the experts includes a university professor and a lecturer specialized in both field of measurement and ELM while the remaining experts includes two university professors and a lecturer whom are experts in ELM.

The experts were required to provide their response for each item on a dichotomous instrument with categorical options of "suitable" and "unsuitable" for favourable and unfavourable item respectively (Masuwai Azwani et al., 2016). Besides, they were also required to provide comments for each item and overall suggestions to improve the instrument (DeVellis, 2013).

The content adequacy for the items were calculated based on Content Validity Ratio (CVR) (Lawshe, 1975; Masuwai Azwani et al., 2016; Sendjaya, Sarros, & Santora, 2008; Sendjaya, 2003; Taherdoost, 2016). CVR was selected as a criteria because it has been widely used in diverse fields, including education field as a valid method to quantify content validity in facilitating the rejection or retention of specific items (Ayre & Scally, 2014; Sendjaya et al., 2008).

The cut-off value of the inter-rater agreement was set at 1.00 as prescribed (Lawshe, 1975). Following this, 11 items were rejected and a total of 90 items were retained. Meanwhile, several items were also modified based on the comments and suggestions provided by the experts (DeVellis, 2013). Next, the instrument was translated into Malay language given the respondents are non-native speaker of English language (Kho, Hamidah Yusof, & Syed Ismail Syed Mohamad, 2015). To ensure the comparability of the items across languages, these instruments underwent back-translation to English language again (Banville, Desrosiers, & Genet-Volet, 2000; Kho et al., 2015; Tai, 2013). All these were done by engaging language experts from a public ELM training institution.

Meanwhile, in order to ensure the equivalence of the translation thus the items were cross-examined by three bilingual secondary school teachers. They were requested to evaluate whether the terminology used in the items suits the reading level and general knowledge of the respondents in schools as they are experienced educators whom were familiar with school life. Besides, they were also requested to trim the items for brevity purpose besides rectifying the syntax of the items for better clarity.

In order to gather preliminary practical insights into the instrument, personal interviews were conducted upon three teachers as suggested by Netemeyer, Bearden and Sharma (2003) and Tai (2013). The teachers were similar to those would be approached in actual survey (Netemeyer, Bearden, & Sharma, 2003). The interviews were aimed to identify any problems in relation to format, syntax, instrument design, completion time, and to address any comments or suggestions (Netemeyer et al., 2003; Tai, 2013). Apart from the common grouses about the lengthiness of the entire instrument, the teachers interviewed were generally satisfied with the instrument.

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Next, the instrument was administered to six teachers to evaluate the clarity of the items by using a scale of one to ten (Flowers, 2006; Tai, 2013). In this sense, item with an average score of 70% and above would be retained for pilot test as it implies high content validity level (Sidek Mohd Noah & Jamaludin Ahmad, 2005; Tuckman & Waheed, 1981). As expected, all items in each dimension recorded a very high average score for clarity with at least 9.57 and the entire score was 9.63. Meaning, all items are high in content validity.

With this, the instrument was administered to the sample of study in two separate pilot tests as follows.

For the first pilot test, 14 schools were picked randomly from the overall 38 schools in Kuantan district, Pahang state with 6 Malay Language teachers were picked randomly from each of these schools. This amounted to a total of 84 (14x6) teachers being selected as the sample for this initial test. It is noteworthy that teachers were selected as the unit of analysis given this research uses a peer-rated approach i.e. assessment from the perspective of teachers upon the predetermined leadership behaviour demonstrated by the language department subject leader, so as to avoid social desirability bias that often occurred in self-rated approach (Kieruj & Moors, 2013; Moors, Kieruj, & Vermunt, 2014; Williams, 2010).

After the data was collected, to assess the reliability of the items, Cronbach's alpha was used as it is the most widely used important measure of internal consistency and interrelatedness among set of items that determines the instrument's quality (DeVellis, 2013; Netemeyer et al., 2003). The cut-off value was set at .80 based on the advice by DeVellis (2013) Besides, following the advice by Ho (2014), item-total correlation of 0.33 was also used as the criterion to guide decisions on the retention or deletion of items.

The data was processed with SPSS v.23 and the result revealed that the instrument had achieved a remarkable alpha value of .996. Meanwhile, it had also been found that all the items achieved alpha value of .90 and above with no items violating the item-total correlation criterion mentioned above. More importantly, no items had also been found to have negative value for the item-total correlation which

implies that the items represent their respective constructs accurately at this juncture. For this reason, all items were retained for second pilot test.

For the second pilot test, the sample was taken from Peninsular Malaysia. Following the 5:1 sample–to-items ratio suggested by Hair, Black, Babin and Anderson (2010), a sample size of 450 (5x90) would be the sampling frame for this pilot test. Hence, seven schools were selected from each states and five teachers were selected randomly from each of these schools resulting in a total of 455 (7x13x5) teachers were selected.

After data collection, the data was normalized and linearized using SPSS v.23 A close inspection of the correlation matrix revealed that almost all coefficients exceeded the cut-off value .33 (Ho, 2014; Tabachnick & Fidell, 2007). In addition, the communalities values also exceeded the threshold of .50 as suggested by Hair et al. (2010) and the result of the Kaiser-Meyer-Olkin (KMO) exceeded the cut-off value of .60 at .967 (Bartlett, 1950; Hair et al., 2010; Kaiser, 1970; Tabachnick & Fidell, 2007) with the statistically significant Bartlett's Test of Sphericity at p< .05 indicated that the data possess adequate sample size and factorial correlation fitness for factor analysis (Hair et al., 2010; Ho, 2014; Meyers, Gamst, & Guarino, 2013; Pallant, 2010).

Next, the data was subjected to Principal Component Analysis (PCA). The PCA result in Table 1.1 revealed the presence of twelve components or factors with eigenvalues exceeding 1 that surpassed the threshold of 60% total variance explained (Meyers et al., 2013). However, a closer look at the scree plot (Figure 1.1) revealed that there is a clear break only between the sixth and seventh components. In other words, components 6 and 7 explain more variance than the remaining components suggesting that only seven components to be retained. By referring to the total variance explained in Table 1.1 again, this makes sense as the amount of variance explained only levelled off after the eighth factor.

As the eigenvalue method tends to over or under-extract factors and given the fact that the parallel analysis is more accurate than the scree plot method especially when working with ordinal data therefore parallel analysis method was used to verify the exact number

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numbers of factors extracted (Gaskin & Happell, 2014). According to the result of the parallel analysis, only six factors' eigenvalues are greater than the initial eigenvalues in Table 1.1 meaning only six factors should be retained. To aid interpretation, the six factors were subjected to varimax rotation.

Table 1.1: Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	46.311	51.456	51.456	46.311	51.456	51.456
2	3.818	4.243	55.699	3.818	4.243	55.699
3	2.394	2.660	58.359	2.394	2.660	58.359
4	1.999	2.221	60.581	1.999	2.221	60.581
5	1.840	2.045	62.625	1.840	2.045	62.625
6	1.712	1.902	64.527	1.712	1.902	64.527
7	1.565	1.739	66.266	1.565	1.739	66.266
8	1.292	1.435	67.701	1.292	1.435	67.701
9	1.204	1.338	69.039	1.204	1.338	69.039
10	1.135	1.262	70.301	1.135	1.262	70.301
11	1.091	1.212	71.512	1.091	1.212	71.512
12	1.038	1.153	72.665	1.038	1.153	72.665
13	.973	1.082	73.747			
14	.927	1.030	74.777			
15	.909	1.010	75.787			

Note: Component 16 to 90 was pared for brevity reason.

Figure 1.1: Scree Plot.
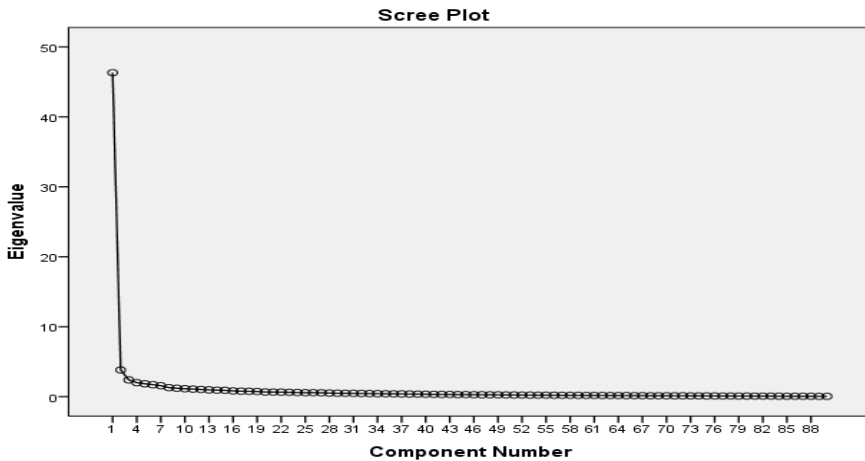
The rotated solution revealed that the six factors explained a total of 64.527 percent of the variance in which Factor1 contributing 16.82 percent, Factor 2 contributing 16.65 percent, Factor 3 contributing 11.10 percent, Factor 4 contributing 10.94 percent, Factor 5 contributing 6.85 percent and Factor 6 contributing 2.18 percent. Intriguingly, the result of the rotated component matrix indicated only five factors was best in explaining the data, with no items loaded on the sixth factor. A close inspection revealed that all items possess loadings from as low as .502 to as high as .707.

To confirm the result above, the data was rotated again using oblique rotation strategy specifically promax rotation. As expected, the result of the promax rotation also supported the five-factor model above with almost similar grouping of items. Since the total variance explained by the five factors exceeded the 60 percent threshold (Meyers et al., 2013) therefore the researcher decided to adopt the five-factors model for further analysis. For this reason, the data was re-run using the previous orthogonal rotation method–varimax rotation, by restricting the number of factors to be extracted to five instead of six.

After the result was obtained, the researcher decided to select five highest loading items to represent each factor instead of minimum three items (Hair et al., 2010).The selected items, its construct changes and factor loadings are shown in Appendix 1.1.

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RESULT AND DISCUSSION

The first factor was termed as *Self-competence (SEC)* as all of the items were originally from this particular dimension as outlined earlier. As for the second factor, the five highest loading items were all from the *Shares Leadership (SHL)* dimension. Inevitably, this factor was labeled as *Shares Leadership (SHL)*. This was not surprising as leadership sharing is a common practice in middle leadership reality, including for subject leaders (Ghamrawi, 2013; Harris & Jones, 2017; Leithwood, 2016).

For the third factor, the five highest loading items were from *Stewardship (STW)* and *Accountability (ACT)* dimensions. Nonetheless, viewing from the lens of work reality of subject leaders, the act of carrying out tasks responsibly (ACT38), assigning teaching duties strategically (STW23), seeking teachers' view during meeting (ACT46) and being proactive in work (ACT37) implies the practice of "building internal accountability" among teachers in their departments in which this is indeed part of the work routine of subject leaders (Leithwood, 2016). Meanwhile, engaging teachers in curriculum planning activities (STW22) clearly exemplified the practice of "realizing external accountability" in which this was also considered as the duty of subject leader as they were expected by school's stakeholders to uplift teaching and learning in their subject area (Leithwood, 2016; Turner, 2005). Hence, this factor was termed as "*Accountability*" *(ACT).*

The fourth factor was termed "*Teacher Capacity Building*" *(TCB)* as all five items selected were from this particular dimension. As for the last factor, the fifth factor, only contains four items thus all items were selected. However, among these items three were from *Teacher Capacity Building (TCB)* and one was from *Stewardship (STW)*. View differently, the TCB items suggested that the subject leader builds teachers' professional capacity through collaborative learning practice which implies the work of building professional learning community (Admiraal & Lockhorst, 2012; Brouwer et al., 2012; Stoll et al., 2006). Implicitly, this alludes to the fact that the subject leader "builds community" in school. On the other hand, by referring to the subject leader's leadership practices outlined by Leithwood (2016), item STW32 (facilitates teachers' participation in the local community activities) is related to "building productive relations with families and

community" which implies performing "social responsibility" in that the subject leader works with the local community to deliver quality education for long term society welfare (Caldwell et al., 2008, 2010; Hernandez, 2008). Succinctly, the subject leader realizes social responsibility. Put together, it was clear that subject leader engages in "*Stewardship*" as "social responsibility" and "build community" denote such practice. Critically, considering subject leaders are teacher leaders and *Stewardship* is an essential attribute for teacher leaders (Harris, 2003; Katzenmeyer & Moller, 2001) hence the last factor was labeled as *Stewardship (STW).*

Lastly, each factor was assessed by Cronbach's alpha measure (Hair et al., 2010). The cut-off value for the alpha value was set at >. 70 as suggested by Hair et al. (2010). The result (Appendix 1.1) revealed that all factors possessed alpha that exceeded the cut-off value required.

CONCLUSION

By and large, the exploratory factor analysis had identified the underlying structure of servant leadership attributes in school context. Particularly, servant leadership attributes among subject leaders in schools. Although this study only resides at exploratory level nonetheless it had explored a new horizon into servant leadership feasibility in school context, particularly servant leadership in middle management reality. However, confirmatory factor analysis (cfa) is still needed to measure the items' psychometric properties before the construct validity for these attributes can be further verified (dennis & bocarnea, 2005; hair et al., 2010; Kline, 2011; meyers et al., 2013). Therefore, future research should use structural equation modelling (sem) to accomplish these purposes so as to confirm these attributes (brown, 2015; hair et al., 2010; Meyers et al., 2013).

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Appendix 1.1: Selected Items after EFA, Construct Changes, Factor Loading and Cronbach's Alpha (α)

Construct	Construct Before PCA	Item	Construct After PCA	Factor Loading	α
Self-competence (SEC)	SEC60	treats all teachers fairly even those whom had offended him/ her	SEC1	.731	
	SEC61	listens to what school members want to say before responding accordingly	SEC2	.717	
	SEC53	able to suggest alternative ideas to resolve work conflicts between school members	SEC3	.706	.909
	SEC56	able to adapt different ideas into a concise approach during school meetings	SEC4	.694	
	SEC55	always explains the message implied in any information received before others	SEC5	.691	
Shares Leadership (SHL)	SHL89	guides teachers to make decisions on the work they are in-charge of	SHL6	.705	
	SHL90	displays appreciation for teachers' efforts in assisting colleagues	SHL7	.677	
	SHL87	guides teachers to coordinate their task with the work of other teachers	SHL8	.677	.927
	SHL88	encourages teachers to consider colleagues' ideas in work	SHL9	.676	
	SHL82	sets department's achievement target that considered teachers' views	SHL10	.654	
Accountability (ACT)	ACT38	carries out any task responsibly without abdicating it to others	ACT11	.594	
	STW23	assigns teaching duties according to teachers' expertise	ACT12	.577	
	STW46	seeks feedback from teachers regarding department work during meetings	ACT13	.569	.894
	ACT37	always proactive in handling departmental work instead of waiting to be told by the principal	ACT14	.567	
	STW22	Engages teachers in curriculum activities	ACT15	.539	
Teacher Capacity Building (TCB)	TCB7	gives constructive feedback on teaching issues raised by teachers	TCB16	.737	
	TCB6	helps teachers to identify their weakness in teaching and learning	TCB17	.723	
	TCB9	guides teachers to teach innovatively according to their competence	TCB18	.701	.905
	TCB8	provides pedagogy ideas to teachers who need guidance	TCB19	.699	
	TCB2	guides teachers to use educational theories in lesson planning	TCB20	.690	
Stewardship (STW)	TCB17	use teachers' quality work outcome to inspire other teachers to improve themselves	STW21	.568	
	STW32	facilitates teachers' participation in the local community activities	STW22	.561	
	TCB15	guides teachers to use online social network such as Facebook, blog, etc. to gain extra knowledge about teaching and learning	STW23	.538	.811
	TCB14	alerts teachers to read educational news regularly as a way to link their teaching practices with educational theories	STW24	.537	

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