

Research Article:

Scrutinising Driving Forces: Principal Leadership and Academic Emphasis for Teacher Leadership in Schools

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ABSTRACT

Teacher leadership requires empirical evidence to reinforce several antecedent influences identified in recent reviews. This study attempts to examine the relationship between principal leadership and teacher leadership with academic emphasis in schools as a mediator. The study utilised a cross-sectional survey design. To verify the hypothesised research model, survey data was collected from a sample of 370 teachers working the schools of Maldives. Partial least squares structural equation modelling was used for data analysis in this study. Findings revealed that principal leadership has a positive direct effect on teacher leadership and academic emphasis. Findings also demonstrated that academic emphasis is directly related to teacher leadership. The findings affirmed the role of academic emphasis as a significant mediator between principal leadership and teacher leadership. Besides contributing to knowledge in the area of teacher leadership, importance of both principal leadership and academic emphasis in cultivating teacher leadership were highlighted. Principals are recommended to enhance academic emphasis for teacher leadership to thrive.

Keywords: Principal leadership, teacher leadership, academic emphasis, school leadership

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INTRODUCTION

In this study, principal leadership is considered as a key driving force that supports and facilitates teacher leadership in schools. A comprehensive model explains that “one of the main pathways from principal leadership to student learning is through the influence of teacher leadership on the school learning climate” (Sebastian et al., 2016, p. 89), presenting the strong effect of principal leadership on teacher leadership. Several other studies also proved that principal leadership as a significant antecedent of teacher leadership (Bellibaş et al., 2020; Ding & Thien, 2022; Li & Liu, 2022; Pan & Chen, 2021). As principal leadership is not the only factor influencing teacher leadership (Nguyen et al., 2020), other pathways that can enhance impact of principal leadership on teacher leadership requires further explorations.

To determine other possible paths, few studies attempted to examine the mediating effect of variables such as teacher agency (Bellibaş et al., 2020), and collective teacher efficacy (Ding & Thien, 2022) on the association between principal leadership and teacher leadership. Another related study tried to investigate the moderating effect of academic emphasis on the relationship between principal leadership and teacher leadership in Taiwan, which showed that the principal effect on teacher leadership was less evident in schools with stronger extent of academic emphasis (Chen & Pan, 2019). The finding is quite interesting to determine the mediating effect of academic emphasis on the relationship between principal leadership and teacher leadership in an Asian country with a unique cultural context, Maldives. It was also reported a moderate to high level of teacher leadership in schools of the Maldives (Mohamed et al., 2018). Furthermore, this lack of literature indicates a call for studies to examine the mediating role of academic emphasis on the relationship between principal leadership and teacher leadership. These reasons deploy current research to examine the impact of principal leadership on teacher leadership through academic emphasis in the Maldivian school context. This research would add literature to fill the knowledge gap about direct and indirect effects of principal leadership on teacher leadership in schools. Hence, this study attempts to answer the following research objectives:

1. To assess the relationship between principal leadership and teacher leadership in schools.
2. To examine the relationship between principal leadership and academic emphasis in schools.
3. To examine the relationship between principal leadership and teacher leadership in schools.
4. To investigate the mediating role of academic emphasis on the relationship between principal leadership and teacher leadership.

Theoretical Perspective of Teacher Leadership

Teacher leadership is positioned within distributed leadership theory (Harris, 2003; York-Barr & Duke, 2004). In this study, teacher leadership school is viewed from the distributed leadership lens “as a product of the interactions of school leaders, followers and aspects of

their situation” (Spillane et al., 2015, p. 1071). The aspects of the situation can be tools and school routines (Spillane, 2006).

The theoretical framework of distributed leadership by Gronn (2002) that holistic nature of leadership as a “unit of analysis”, and Spillane (2006, p. 12) viewed leadership as “interactions among leaders, followers, and their situations” rather than actions of many individual leaders are well thought-out to examine teacher leadership school. Referring to the unit of analysis in contrast to ‘numeric actions’, the form of distributed leadership as “concertive action”, is established with three forms concertive actions: “spontaneous collaboration”, “intuitive working relations” and “institutionalised practices” (Gronn, 2002). These three forms of engagement are explained as collaborative engagement arise naturally in the workplace; development of intuitive understanding due to close working relations among staff members; variety of structural relations and organisational arrangements which leads to distributed actions, respectively that each form is considered as a manifestation of “conjoint agency”.

According to Spillane (2006, p. 12), distributed leadership involves two aspects: the leader-plus aspect and the practice aspect. The leader-plus aspect acknowledges all the individuals taking both formal and informal leadership responsibilities rather than formal leadership positions, while leadership practice aspect focuses on leadership practices beyond leadership roles, functions and those who are responsible that takes the shape of the interaction between three elements of distributed leadership; leaders, followers and situation. Based on this theoretical perspective, principal leadership reflects the leader while the academic emphasis reflects the situation for followers to create a teacher leadership culture in the school. Hence, this theoretical perspective is a useful tool to guide this study.

LITERATURE REVIEW

Conceptualising Teacher Leadership

Teacher leadership involves the ability to influence others to achieve imperative goals of school improvement (Wilson, 2016). However, the term “teacher leadership” is rarely defined and conceptualisation is extensively varied based on waves of teacher leadership (Wenner & Campbell, 2017). Hence, informal teacher leaders are utilised along with formal teacher leaders in this study to conceptualise teacher leadership, as it is established on “professionalism and collegiality” instead of a titled position (Pounder, 2006). Teacher leadership is “capacity and commitment to contribute beyond one’s classroom” (Fullan & Hargreaves, 1996, p. 13). Teachers’ capacity to lead informally has more impact on teacher collaboration compared with principals’ leadership and their professional experience (Szcześciul & Huizenga, 2014).

Teacher leadership can be defined as teacher participation in school decision-making and opportunities for teachers to take initiative and lead school improvement (Muijs & Harris, 2007). More explicitly, teacher leadership is defined as “teachers who lead within and

beyond the classroom, identify with and contribute to the community of teacher learners and leaders, and influencing others toward improved educational practice” (Katzenmeyer & Moller, 2009). Teacher leadership in the third wave of teacher leadership is viewed as a process rather than a position that teachers get leadership opportunities while carrying out teaching duties (Pounder, 2006). The term teacher leadership is conceptualised as a set of behaviours and practices that are undertaken collectively (Muijs & Harris, 2007, p. 112). In this study, teacher leadership is defined as the “process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (York-Barr & Duke, 2004, pp. 287–288).

Principal Leadership and Teacher Leadership

In essence, principal leadership is identified as one of the central enabling factors for teacher leadership practice (Nguyen et al., 2020). Previous research reveals that principals inspire teachers to take informal leadership roles through principals’ practices such as shared vision, communicating a vibrant goal for improving academic performance of students, and exchange of professional ideas in solving difficult situations (Cheng & Szeto, 2016). The role of principals in supporting teacher leadership includes creating leadership opportunities to teachers (Smith et al., 2017; Wang, 2016; Woodhouse & Pedder, 2017); providing space for individual teachers to develop leadership skills (Cheng & Szeto, 2016); establishing regular and constructive communications with teachers (Szeto & Cheng, 2018); encouraging teachers to take risk and support them along the leadership journey (Hunzicker, 2012); practicing strategic delegation to take teachers on leadership work (Woodhouse & Pedder, 2017); and incorporating aspirations and ideas of teachers (Cheng & Szeto, 2016).

Principals need to create an environment for leadership development within the school environment. In terms of teacher leadership development, teachers need support from principals in developing individualised teacher leadership along with a favourable school context for teacher leadership development (Sinha & Hanuscin, 2017). To address this aspect, principals need to distribute decision making authority, reshape organisational structures and create a culture of collaboration to provide broad opportunities for teachers to participate in decision making (Lai & Cheung, 2015). Hence, principals shoulder a mandate in teacher leadership development in their respective schools.

Understanding the role of principals and their presence in the teacher leadership ecosystem, the association between principal leadership and teacher leadership has been investigated. Cheng and Szeto (2016) identified principals’ role as an unavoidable factor in fostering teacher leadership in schools. Researchers also began to establish this relationship using empirical studies. Several of previous studies discovered that principal leadership is strongly related to teacher leadership (Sebastian et al., 2016; 2017), and principals’ learning-centred leadership has a significant direct effect on teacher leadership (Bellibaş et al., 2020; Ding & Thien, 2022; Pan & Chen, 2021). As discovered by Pan and Chen (2021), principal leadership has a significant positive impact on four dimensions of teacher leadership: communicating a learning vision, supporting teacher professional development, initiating

curricular and instructional improvement, and enhancing teaching environment. Li and Liu (2022) also found that principal transformational leadership is positively related to teacher leadership. Both learning-centred leadership and transformational leadership of principals having a significant direct impact on teacher learning implies the magnitude of investigating the effect of integrated principal leadership practices in this study.

Mediating Role of Academic Emphasis

Academic emphasis is a critical condition for establishing a culture of academic optimism and an important factor that contributes to school achievement (Mitchell et al., 2016). Given that student achievement is the core of teacher leadership, principals must prioritise academic emphasis to promote teacher leadership in schools. One of the few studies on this interest, Chen and Pan (2019) found that the principal's leadership effect on teacher leadership was less evident in schools with stronger extent of academic emphasis. Though they used academic emphasis as a moderating variable in their study, the stimulating finding of their study unfolds to examine academic emphasis as a mediating variable in this study. A positive significant direct relationship between distributed leadership of school leaders and academic emphasis (Thien & Chan, 2022) is an initial step to establish a mediating path of academic emphasis between principal leadership and teacher leadership in schools. This path is further supported by Hameiri and Nir (2016) who found that principal's transformational leadership is positively related to academic emphasis in elementary school settings.

Next, a crucial path is the direct relationship between academic emphasis and teacher leadership. However, lack of studies in this relationship, significant correlation between academic emphasis and development of professional learning community (Gray et al., 2016) provides a foundation to hypothesise the relationship between academic emphasis and teacher leadership. Because several previous studies discovered that the function of teacher leadership is in the establishment of professional learning communities in schools (Hairon et al., 2015; Harris, 2003, 2005; Lin et al., 2018). Hence, the dearth of literature indicates an ominous need to investigate the mediating effect of academic emphasis on the relationship between principal leadership and teacher leadership.

Research Framework

Following the conversation on the interplay between principal leadership, teacher leadership and academic emphasis in the school, a hypothesised research framework is proposed as provided in Figure 1. Based on the framework, “integrated principal leadership practices” as an exogenous variable can nurture “teacher leadership” in the schools. Teacher leadership in schools is the endogenous variable. At the same time, the nature of this association can be governed by academic emphasis which is the mediator in this framework. In a nutshell, principal leadership brings a change in the academic emphasis, in turn, results in teacher leadership in the context of school environment. The higher order construct—integrated principal leadership practices—consists of two sub-constructs, such as transformational

leadership and instructional leadership. The teacher leadership (higher order) construct has seven sub-constructs: developmental focus, recognition, autonomy, collegiality, participation, open communication and positive environment (Katzenmeyer & Moller, 2001). Academic emphasis is a lower order construct.

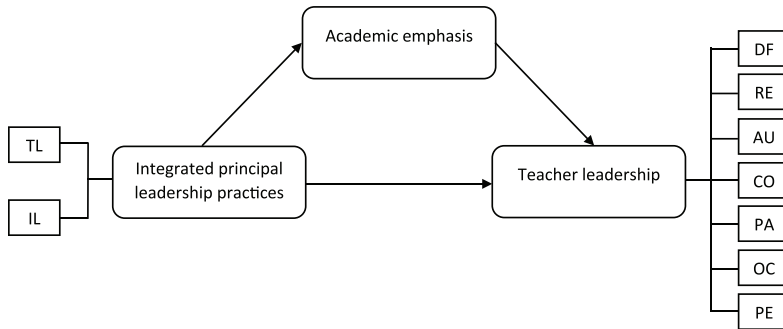


Figure 1. Research framework

Based on previous studies and the conceptualised model in Figure 1, the following four hypotheses were formulated on the relationships between principal leadership, academic emphasis and teacher leadership.

- H1: Principal leadership is positively related to teacher leadership in school.
- H2: Principal leadership is positively related to academic emphasis.
- H3: Academic emphasis is positively related to teacher leadership in school.
- H4: Academic emphasis mediates the relationship between principal leadership practices and teacher leadership in school.

METHODOLOGY

Research Design and Participants

A quantitative approach with survey design was employed in this study. In this cross-sectional study, data were collected from 370 teachers working in different 49 schools across the Maldives. The sample size of this study is a representative sample of approximately 9,000 teachers working in the schools of the Maldives. A commonly used table for determining sample size for a given population indicates 368 and 370 for a population of 9,000 and 10,000, respectively (Krejcie & Morgan, 1970).

Instrumentation

The instrument used for the study has three sets of questionnaires. The content validity of the instrument was conducted by three experts: two international and one local. Permission to use these questionnaires was obtained from the authors. First, Integrated Principal Leadership Practices validated by Mohamed et al. (2021) in the context of Maldives was

used to measure integrated leadership practices of school principals. This instrument was an adapted and validated version of Survey of an Integrated Model of School Leadership (Leithwood, 2017) and Educational Leadership Survey (Leithwood, 2018). The validated version of the instrument has two sub-constructs: transformational leadership and instructional leadership. Total of 19 items were measured by using a 5-point Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Sample items read as; “Provides leadership development among teachers by providing opportunities for informal leadership” and “Regularly observes classroom activities”. The reliability of both the dimensions of integrated principal leadership practices; transformational leadership and instructional leadership were $\alpha = 0.95$ and $\alpha = 0.93$, respectively (Mohamed et al., 2021).

Second, to measure academic emphasis, six items were adapted from Hoy et al. (2006) study. A 5-points Likert scale was used to measure academic emphasis, ranging from the ‘Strongly Disagree’ (1) to ‘Strongly Agree’ (5). Sample items include “the school sets high standards for academic performance”, “students try hard to improve on previous work” and “the learning environment is orderly and serious”. Cronbach’s alpha coefficient reliability was 0.83 for academic emphasis (Hoy et al., 2006).

Third, the Teacher Leadership School Survey (TLSS) adapted from Katzenmeyer and Moller (2001) in this study was used to measure the teacher leadership in the schools. Despite having 49 items in the original TLSS, a total of 50 items were used in this study. One item was split into two items based on experts’ feedback due to the double barrel. The questionnaire was measured on a 5-point Likert scale, namely: (1) never, (2) rarely, (3) sometimes, (4) often, and (5) always. Few sample items read as; “teachers at my school are supportive of each other professionally” and “conversations among professionals at my school are focused on students”. This questionnaire demonstrated internal-consistency reliability of Cronbach’s alpha score for seven dimensions of the TLSS ranging between 0.83 to 0.93 (Katzenmeyer & Moller, 2001).

Data Collection

Approval to conduct this research and gateway access to school were obtained prior to data collection. All the selected schools were communicated and explained the research before administering the survey questionnaire. An online survey questionnaire administered to most of the schools, except few schools. Hard copy of the survey was sent to those schools. Participants were assured that their responses will be kept confidential and anonymous. Additionally, their consent to take part in the study was obtained. Follow-up communications were made to increase the response rate.

Data Analysis

A Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to analyse the research model using SmartPLS 4 software. PLS-SEM is a variance based SEM approach that can be used to analyse complex models having both first (lower) order constructs and second (higher) order constructs, as well as both reflective and formative constructs (Hair et al., 2017). The hypothesised model consists of one exogenous latent

variable (principal leadership practices), one latent mediator (academic emphasis), and one latent endogenous variable (teacher leadership). Integrated principal leadership practices and teacher leadership are second-order constructs; one is reflective-formative and another one is reflective-reflective, respectively. The third construct, academic emphasis is a first (lower) order construct.

A two-step process is involved in PLS-SEM model evaluation which involves assessment of the measurement model /outer model followed by assessment of the structural model/ inner model (Hair et al., 2017; Henseler et al., 2009). Prior to the assessment of measurement model data cleaning was conducted. A two-stage approach was applied in this data analysis due to the inclusion of higher order constructs. During the analysis, the measurement model associated with both reflective and formative outer models was assessed before analysing the structural model to answer the research questions.

In the initial step, the analysis began with the assessment of a reflective measurement model for first-order constructs, followed by second-order reflective constructs. The first-order construct refers to the relationship between items/indicators to respective dimensions, while the second order construct denotes the relationship between the dimensions and the latent constructs. Assessment of reflective measurement models intends to examine the establishment of reliability, convergent and discriminant validity. Next, assessment of the formative measurement model was conducted. The formative measurement model involves: (a) convergent validity, (b) collinearity between indicators, and (c) significance and relevance of outer weights (Hair et al., 2017). Finally, the structural model estimates were examined once the reliability and validity of the constructs were established. The structural model represents the relationships between latent constructs. In the evaluation of the structural model, size and significance of path coefficients assessed to answer the research questions and hypotheses. Bootstrapping sample size was set to 5,000 to investigate the significance of the paths coefficients.

FINDINGS

Assessment of Reflective Measurement Model

To begin with, the model was assessed for its measurement accuracy using convergent and discriminant validity in the first-order and second-order constructs. Three criteria were employed to evaluate convergent validity. Firstly, outer loadings were checked and 12 items (AE2, TL2, TL5, TL11, TL8, TL15, TL16, TL18, TL24, TL34, TL10, TL25) were excluded from the analysis due to the low loading values, which are below the threshold of 0.708 (Ref). After excluding these items, all the indicators have factor loading of at least a 0.708, average variance extracted (AVE) of each first-order construct were above the threshold of 0.50 and composite reliability (CR) value of each first-order construct were above 0.70 as shown in Table 1.

Table 1. Convergent validity for the first-order constructs

First-order construct	Items	Loadings	CR	AVE
Transformational leadership	PL1	0.802	0.958	0.656
	PL10	0.832		
	PL11	0.822		
	PL12	0.790		
	PL13	0.787		
	PL15	0.792		
	PL2	0.841		
	PL4	0.754		
	PL6	0.788		
	PL7	0.809		
	PL8	0.858		
Instructional leadership	PL9	0.843	0.937	0.680
	PL17	0.830		
	PL18	0.864		
	PL19	0.826		
	PL20	0.785		
	PL21	0.819		
	PL22	0.849		
Academic emphasis	PL3	0.795	0.894	0.629
	AE1	0.782		
	AE3	0.777		
	AE4	0.797		
	AE5	0.836		
	AE6	0.771		
Developmental focus	TL1	0.827	0.907	0.661
	TL3	0.854		
	TL4	0.819		
	TL6	0.783		
	TL7	0.779		
	TL9	0.815		
Recognition	TL12	0.761	0.896	0.683
	TL13	0.833		
	TL14	0.892		

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Table 1. (Continued)

First-order construct	Items	Loadings	CR	AVE
Autonomy	TL17	0.771	0.915	0.684
	TL19	0.835		
	TL20	0.851		
	TL21	0.864		
	TL22	0.812		
Collegiality	TL23	0.782	0.901	0.647
	TL26	0.709		
	TL27	0.838		
	TL28	0.843		
	TL29	0.842		
Participation	TL30	0.796	0.932	0.697
	TL31	0.888		
	TL32	0.864		
	TL33	0.875		
	TL35	0.758		
	TL36	0.822		
Open communication	TL37	0.824	0.942	0.732
	TL38	0.855		
	TL39	0.907		
	TL40	0.901		
	TL41	0.845		
	TL42	0.795		
Positive environment	TL44	0.853	0.950	0.731
	TL45	0.821		
	TL46	0.891		
	TL47	0.856		
	TL48	0.852		
	TL49	0.896		
	TL50	0.815		

Table 2 shows that all the Heterotrait-Monotrait Ratio of Correlations (HTMT) values are below 0.90 (HTMT_{0.90}) (Henseler et al., 2015) for the first-order constructs. The findings confirmed the establishment of discriminant validity.

Table 2. Discriminant validity for first-order constructs using HTMT criterion

Variables	AE	AU	CO	DF	IL	OC	PA	PE	RE	TL
AE										
AU	0.625									
CO	0.657	0.871								
DF	0.687	0.662	0.703							
IL	0.536	0.515	0.523	0.628						
OC	0.495	0.735	0.804	0.578	0.410					
PA	0.609	0.803	0.895	0.637	0.521	0.841				
PE	0.612	0.799	0.836	0.702	0.492	0.883	0.862			
RE	0.607	0.506	0.638	0.665	0.435	0.636	0.618	0.632		
TL	0.508	0.505	0.515	0.690	0.878	0.388	0.483	0.498	0.378	

Notes: AE = Academic emphasis; AU = Autonomy; CO = Collegiality; DF = Developmental focus; IL = Instructional leadership; OC = Open communication; PA = Participation; PE = Positive environment; RE = Recognition; TL = Transformational leadership

Teacher leadership is the only second-order reflective construct in the model. Table 3 shows that all the loadings of the second-order reflective construct are above the threshold of 0.708. The CR and AVE values of teacher leadership are larger than 0.70 and 0.50, respectively.

Table 3. Convergent validity for the second-order constructs

Second-order construct	First-order construct	Loadings	CR	AVE
Teacher leadership	Autonomy	0.839	0.944	0.708
	Collegiality	0.892		
	Developmental focus	0.783		
	Open communication	0.852		
	Participation	0.886		
	Positive environment	0.904		
	Recognition	0.718		

Table 4 shows the HTMT ratio of correlation for the second-order reflective construct with other reflective constructs. As evident from the table, there is no discriminant validity issue in the model as the value satisfies the 0.85 ($HTMT_{0.85}$) criteria (Kline, 2011), indicating establishment of discriminant validity.

Table 4. Discriminant validity for first-order constructs using HTMT criterion

	Academic emphasis	Teacher leadership
Academic emphasis	-	-
Teacher leadership	0.716	-

Referring to Tables 1 to 4, it is observed that both convergent validity and discriminant validity of the reflective measurement mode is established.

Assessment of Formative Measurement Model

Integrated principal leadership practices is the formative construct in the model. As evident in the Table 5, the formative construct yielded path coefficient of 0.743, more than threshold value of 0.70 (Hair et al., 2017), thus integrated principal leadership practices construct, has achieved sufficient degree of convergent validity. According to Table 5, Variance Inflation Factor (VIF) values of all the indicators (transformational leadership and instructional leadership) for the formative constructs were below the threshold value of 5 (Hair et al., 2017). This concludes that collinearity is not an issue for the estimation of the PLS path model as collinearity does not reach a critical level in any of the formative indicators. Next, the significance and relevance of the outer weights of the constructs were assessed. According to Table 4, weights of both formative indicators (transformational leadership and instructional leadership) were significant.

Table 5. Discriminant validity for first-order constructs using HTMT criterion

Higher order construct	Lower order construct	Convergent validity	Weights	VIF	t-value weights	Sig.
Integrated principal leadership	Instructional leadership	0.743	0.557	3.112	5.435**	0.000
	Transformational leadership	-	0.490	3.112	6.039**	0.000

Note: > 1.96**

Based on the results on Table 5, the formative measurement model of integrated principal leadership practices with two formative indicators was achieved.

Assessment of Structural Model

Hypotheses used in study were tested in the assessment of structural model. First three hypotheses (H1, H2 and H3) aim to examine the direct relationship between three variables in the study. The last hypothesis (H4) aims to investigate the indirect relationship between principal leadership and teacher leadership in schools through academic emphasis.

According to the results in Figure 6, there is a significant positive relationship between integrated principal leadership practices and teacher leadership ($\beta = 0.348, p < 0.001$). In addition, 95% confidence interval corrected bias did not contain the zero value.

Similarly, there is also a direct positive relationship between integrated principal leadership practices and academic emphasis ($\beta = 0.492, p < 0.001$). Furthermore, there is a direct positive relation between academic emphasis and teacher leadership ($\beta = 0.473, p < 0.001$). Thus, H2 and H3 were supported.

Table 6 also reveals that academic emphasis is a significant mediator between integrated principal leadership practices and teacher leadership ($\beta = 0.233, p < 0.001$). Thus, H4 was supported.

Table 6. Hypothesis testing

Hypothesis	Beta	SE	<i>t</i> -value	<i>p</i> -value	LL	UL	Decision
H1: PL → TL	0.348	0.053	6.617	0.000	0.241	0.448	Supported
H2: PL → AE	0.492	0.051	9.681	0.000	0.379	0.582	Supported
H3: AE → TL	0.473	0.049	9.614	0.000	0.372	0.566	Supported
H4: PL → AE → TL	0.233	0.031	7.535	0.000	0.176	0.298	Supported

Notes: PL = principal leadership; TL = teacher leadership; AE = academic emphasis; LL = lower limit; UL = upper limit

The R^2 in Figure 1 shows the amount of variance in the endogenous variable explained by all the exogenous or predictor variables connected to it. The results in the Figure 2 shows that integrated principal leadership practices contributed 24.2% variance in academic emphasis. Meanwhile, combination of integrated principal leadership practices and academic emphasis contributed 50.8% variance in teacher leadership. Moreover, the R^2 value of 0.508 for the main endogenous variable, which is above 0.26 indicates a substantial model (Cohen, 1988). Furthermore, effect size (f^2) shows the impact of each predictor variable on a certain endogenous variable. In this model, integrated principal leadership practices ($f^2 = 0.187$) and academic emphasis ($f^2 = 0.345$) had a medium effect in producing the R^2 for teacher leadership. Similarly, integrated principal leadership practices ($f^2 = 0.320$) had a medium effect in producing the R^2 for academic emphasis. According to Cohen (1988), values 0.02, 0.15 and 0.35 represent small, medium and large effects respectively. The result reveals that the effect of academic emphasis on teacher leadership was close to large effects compared to principal leadership practices.

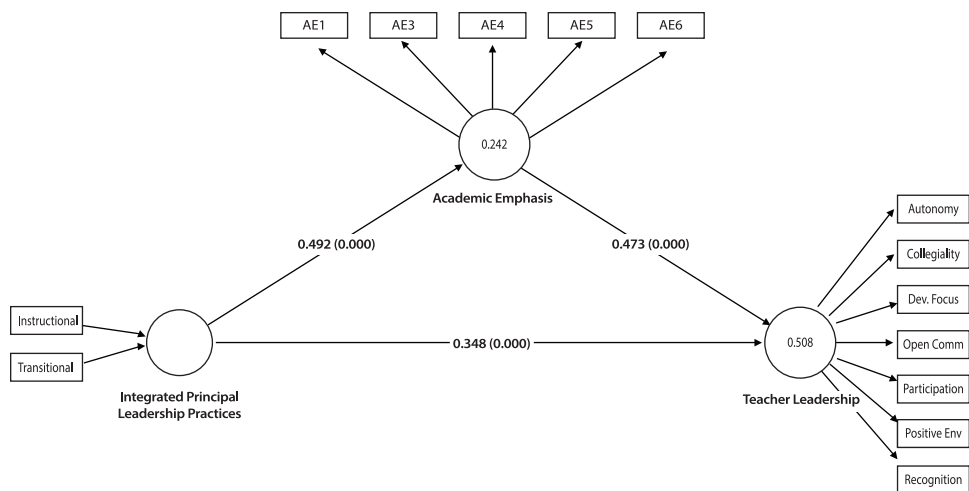


Figure 2. Structural model

DISCUSSION

The present study has several important findings. First, integrated leadership of the principal was found to be directly related to teacher leadership. Second, principal leadership was found to be directly related to academic emphasis in schools. Third, academic emphasis was found to be directly related to teacher leadership in schools. Fourth, academic emphasis was found to mediate the relationship between principal leadership and teacher leadership in schools.

The results provided evidence of a positive relationship between principals' integrated leadership practices and teacher leadership in the Maldivian schools. In accordance with the present result, previous studies have demonstrated a positive and significant association between principal leadership and teacher leadership (Bellibaş et al., 2020; Ding & Thien, 2022; Li & Liu, 2022; Pan & Chen, 2021; Sebastian et al., 2017). Recent reviews also identified principal leadership as one of the school level antecedents of teacher leadership (Nguyen et al., 2020; Schott et al., 2020). Thus, this study further supported principal leadership as a key driver of teacher leadership with empirical evidence. This result signifies the importance of principals' interaction with teachers to develop their leadership capacity. Szeto and Cheng (2018) identified three patterns of such interaction with novice teachers such as inspirational effect, empowering effect and allowing effect of principals on teacher leadership development. Perhaps, principals should invest time in empowering teachers and developing teacher leadership within the school to improve student learning. Because, principal support and facilitative structure have a positive effect for teachers to become teacher leaders (Wenner & Campbell, 2017). The responsibility of the principal is immense to drive teacher leadership practices in schools targeting school improvement. To comply with the theoretical perspective of this study, school principals need to interact with teachers to support and facilitate teacher leadership practices in the school through various

activities. Principal should facilitate teachers to interact with other colleague teachers in improving their teaching practices.

Findings of this study revealed that principal leadership is directly related to academic emphasis within the school environment. This finding broadly supports the work of other studies in this area linking principals' distributed leadership with academic emphasis (Thien & Chan, 2022) and transformative leadership with academic emphasis (Hameiri & Nir, 2016). This is a promising finding because principals need to set high academic goals for all the students. Furthermore, principals can drive change within the school environment focusing on academic excellence. Academic emphasis can be observed from all the members of the school community where teachers give emphasis on meeting the goals of all students, students set their own academic targets, parents value academic achievement, and principals create a conducive learning environment. Principal must be the sage of this cultural and contextual change with a vision for every child to excel.

The current study also found that academic emphasis is directly related to teacher leadership. Due to the lack of literature on this association, the result can be compared with that of Gray et al. (2016) who found a significant relationship between academic emphasis and development of the professional learning community. Because "teacher leadership plays out at the core of building PLCs in schools" (Lin et al., 2018, p. 547) and several of previous studies discovered that function of teacher leadership is in the establishment of professional learning communities in schools (Hairon et al., 2015; Harris, 2003, 2005; Lin et al., 2018). Previous studies also found school culture as a significant predictor of teacher leadership (Nguyen et al., 2020; Öztürk & Şahin, 2017). Therefore, a possible explanation for the result of current study might be the magnitude of owning a culture of academic emphasis in schools to cultivate teacher leadership. The interaction between principal and teachers' practices requires a suitable situation for teacher leadership to grow and nurture in the school environment. The situation includes structures and routines that comprise of grade-level or department meetings and scheduling of teachers' preparation time (Spillane, 2005). These meetings and arrangements are avenues for creating academic emphasis in schools and set high standards for performance.

The last findings indicated that academic emphasis mediated the effect of principal leadership on teacher leadership. This finding provides a much-anticipated pathway that principals can use to cultivate teacher leadership in schools through academic emphasis. Principals need to explore multiple ways to create a conducive school environment in terms of logistical factors and cultural norms for teacher leaders to complete their tasks (Wenner & Campbell, 2017). Furthermore, the principal sets the tone for a school's culture, thereby affecting the cultivation of teacher leaders (Wilson, 2016). In addition to the mediating effect, combination of principal leadership and academic emphasis contributing 50.8% variance in teacher leadership proves both the variables as influential driving forces for teacher leadership. Further observations of this study present an interesting finding about the effect size of both principal leadership and academic emphasis on teacher leadership. The findings showed that academic emphasis in schools has a much stronger effect than principal leadership. This finding reflects that of Chen and Pan (2019) who found that the

strength of relationship between principal leadership and teacher leadership decreases in schools having high levels of academic emphasis. Thus, principals must consider several indirect pathways to develop teacher leadership in schools rather than relying only on direct approaches.

CONCLUSION

The main aim of this research is to examine the influence of principal leadership on teacher leadership through the mediating effect of academic emphasis. The study revealed significant direct relationships between principal leadership, teacher leadership and academic emphasis with evidence from the Maldives. The study also affirmed the mediating effect of academic emphasis on the link between principal leadership and teacher leadership. Thus, both principal leadership and academic emphasis are vital predictors of teacher leadership in schools. The findings from this study highlight the important necessity of emphasising academic improvement within the school community to enhance teacher leadership. Principals could foster teacher leadership by encouraging teacher collaborative teaching and learning activities through reflection and sharing sessions. Meanwhile, policy makers and zone coordinators at the central ministry need to acknowledge the tremendous potential of teacher leadership in school improvement and educational transformation. This acceptance and facilitation should be visible in both policy tables and practising grounds. This study can also contribute to principal preparation programmes. For successful employment of teacher leadership in schools, principals need to understand practical ways of supporting teacher leadership through their influence on school level factors. It is also recommended to use an integrated leadership approach with instructional, transformational and distributed leadership to facilitate teaching and learning and transform school culture and structure. Although this study is limited to two key antecedents of teacher leadership, future studies could include other variables ranging from school related factors to person-specific factors. Especially, other contextual mediating variables can be included in the model to explore different situations to comply with distributed leadership theory. A mixed method research design can be used in future research to gain a more complete picture of this phenomenon, as this study is limited to cross-sectional survey design.

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