

## **The Relationship between Safety Management, Transformational Leadership and Safety Performance in National Primary Schools in Selangor, Malaysia**

*Hubungan antara Pengurusan Keselamatan, Kepemimpinan Transformasi dan Prestasi Keselamatan Sekolah Kebangsaan di Selangor, Malaysia*

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### ***Abstract***

*The increasing pattern of accident cases in the school environment questions the legal responsibility of schools to ensure the safety of students. This study investigates the aspects of safety management, headmasters' transformational leadership and safety performance of teachers in national primary schools in Selangor, Malaysia. Questionnaires were distributed to 214 teachers who were selected through random sampling. The survey data collected were analysed using descriptive analysis (mean and standard deviation) to examine the level of each variable, inferential analysis (Pearson Correlation) to identify the relationship between variables and (Regression Analysis) to identify the effect between variables using SPSS. The findings of the study revealed high level of practice for headmasters' transformational leadership and teacher's safety performance aspects meanwhile the level of safety management practised in primary schools is at a moderate level. The outcomes of the study also identified a significant positive relationship between safety management, headmasters' transformational leadership and teacher's safety performance. Further, the transformational leadership effect on safety performance is higher through safety management practices compared to the direct effect.*

**Keywords:** *Safety management, transformational leadership, safety performance*

### **INTRODUCTION**

Research on safety in Malaysian schools is emerging as the policymaker targets of achieving at least the minimum essential safety requirements for a safe, hygienic and conducive environment for teaching and learning (Malaysian Education Blueprint, 2013). This outline resulted from the increasing pattern of accident cases in the school environment which questions the legal responsibility of schools to ensure the safety of students under the common law doctrine of in loco parentis (Tie, 2014, p.119). It is known that the school physical environment always associated with hazard and risk

which subject a student's life in danger (Vicario,2012). Yet, the neglecting attitude of school management is at a very disappointing level as safety is not considered as the main priority of school (Chandrakantan et al., 2016). Sabu (2005), claimed that Malaysian schools still have not developed a conducive and safe environment for the students, proven by the cases broadcasted in the media which demolish the public perception of the school management (Dotson, 2016).

Therefore, schools are carrying a vital role in educating the whole community on the importance of safety and preparing a conducive learning environment for students. In recent years, school leaders and teachers are carrying multiple challenging tasks in the academic area and non-academic areas (Shafie, Kadir and Asimiran, 2014). This probably has led the leaders and teachers to give less attention to safety-related issues as they hold many roles and functions, resulting in mismanagement of safety issues in schools (Dotson, 2016). Hence, the school needs to assist in the introduction of a comprehensive school safety approach in the daily school management task (Diazvicario and Sallan, 2017). It should be a planned process and an integral part of school management. In the context of Malaysia, the Ministry of Education has strictly made a key performance indicator for school heads to ensure safety in schools (DOSH, 2014). Muzaffar (2016) wrote in *The Star* dated April 22, school heads and teachers are reminded not to lose focus on the safety aspects of students in schools.

## **PURPOSES OF THE STUDY**

Regardless of a large number of circulars that carried instructions from the Ministry of Education Malaysia, it has been found that they are insufficient for comprehensive coverage on studies and findings related to safety practices in primary schools in Malaysia (Ssekamanya, Mastura, Khamsiah and Dayang, 2016). This opens a space for decreasing attention to school safety judging from cases of negligence which have been highlighted in the media.

Existing research results show a mixed outcome on safety-related studies. Anantha et al. (2016), study showed that the practice of transformational leadership in the school is at a moderate level. Nurul and Tengku (2009), found out that knowledge of school headmaster on safety is low at 7.7% and the study shows 42% of the schools did not implement any programmes on safety and health while more than 50% did not have safety policies in the school. These pieces of evidence showing that school heads could have overlooked the need for safety management practices and teachers are less efficient in managing safety in schools.

Additionally, this finding also offers a way to further explore the subject of transformational leadership by using the Bass Model (1985) which is proven to be effective in changing the subordinates' attitudes and work-related outcomes (Barling,

Loughlin and Kelloway, 2002). The relationship between transformational headmasters believed to strengthen the teacher's safety performance in schools and eventually the whole safety management practices in schools.

Research on safety management, transformational leadership and safety performance were done in the field of construction, nursing, military, sports, medical, transportation and engineering and discovered that the relationship between these variables tremendously given positive outcomes on safety management in the respective field. However, empirical research on the educational field is currently lacking. Therefore, the aim of this study hence was to scrutinize the relationship of safety management, transformational leadership and teacher's safety performance in educational settings and attempted to explore if there is any significant relationship between safety management, transformational leadership and teacher's safety performance in the context of Malaysia.

### **Research Questions**

1. What is the level of safety management practices, transformational leadership exercises and safety performance in schools?
2. Is there a relationship between safety management, transformational leadership and safety performance in schools?
3. Is transformational leadership a significant factor of safety management?
4. Is transformational leadership a significant factor of safety performance?
5. Is safety management a significant factor of safety performance?

### **Theoretical Framework**

The path-goal theory framed up the whole theoretical framework to explain the importance of leadership behaviour in an organization as an agent who has a positive relationship with employees' performance. Robert House developed the path-goal theory in 1971 which also known as the theory of leader effectiveness. According to House and Mitchell (1974), the Path-Goal model is a theory based on the style or behaviour of leaders that best fit the employee and work environment in order to achieve a goal. The theory is revised in 1996. It argues on the leader's attribute to adjust with the ability of the employees and admitted lacking in them. According to the theory, an effective leader knows how to guide their followers to be on the right path to achieve organizational goals. In a specific condition, leaders provide direction and support needed to enhance the employees' job performance. On the other way, subordinates accept the leaders' attitude, when they view them as motivating, encouraging, receive coaching and reward for effective performance. In this study, the path-goal theory is used to explain the transformational leadership model by Bass, 1985. Each dimension in this model is framed under the path-goal theory which emphasizes on the employees' need for a committed leader who promotes vision,

leading by example, instilling trust and confidence and demonstrates vigorous responsibility towards goals, culture and mission. Such leaders always encourage the attitude of teamwork and continuous learning for improvement. These leaders are consistent in their actions and work to upgrade the performance of the employees in the organization regardless of their ability and weaknesses.

## **LITERATURE REVIEW**

### **Safety Management**

Management of safety is highly important as Díaz (2012) stated that "the management of safety in schools is an essential aspect to guarantee the protection of all the students, teachers and other staff from the risk and hazards of the school environment." Grote (2012, p.1985) enlightened that safety management in an organization focuses on the obstacles of the organization's ability to decrease the level of uncertainty in the best possible way. Kirwan (1998) and Mearns et al. (2001) stated that safety management practices as roles and functions associated with remaining safe at the workplace.

Safety management has been defined commonly as the implementation of safety policy, safety rules and procedures, safety strategies and activities, safety training, safety communication and feedback and safety promotion (Argyris, 1999; Vinodkumar and Bhasi, 2010; Chandrakantan et al., 2016). Castro and Gairin (2011) explained that integral safety should be managed from within schools via their normal processes of planning, distribution of functions, coordination, control, and institutional evaluation. Meanwhile, Cao et al. (2012) stated the process of management work on reducing risk loss, generally including risk identification, risk assessment, and risk control.

In line with this definition, the common dimensions were extracted to fit in the organizational functions of safety management process, namely, planning, organizing, risk identification risk assessment and risk control which are fundamental and systematically tackle the school safety aspect.

### **Transformational Leadership**

The 21<sup>st</sup> century school reformation ranked school leadership as the main priority to improve school functions all rounded (Diaz, 2012). Chua and Shah Rollah (2017), revealed that leadership in safety management plays a significant role in ensuring a safe and sound workplace. Leadership in safety management can be defined as the method which the leaders utilize to influence their employees' everyday tasks through interactions to achieve low accidents rate and positive safety performance (Lu and

Yang, 2010). Vredenburg (2002), uncovered that effective leadership in safety management shapes positive safety behaviour and attitudes through inspiring and promoting.

Scholars has debated between safety leadership on transformational leadership and transactional leadership in improving safety management and safety performance in the organization. Barling et al. (2002) indicated that many studies have revealed the transactional and transformational leadership as the backgrounds for safety specific leadership behaviour.

According to Kim and Gausdal (2017), transactional leaders monitor and control the work that must be done by subordinates, reward them for successfully completing stated objectives and reversely punishment for not achieving goals. Meanwhile, Kelloway, Mullen and Francis (2006), specifically explained that transformational leadership behaviours such as encouraging subordinates work safely and discussing safety openly, maintaining and initiating a safe working environment, listening to safety concerns, found to affect the subordinates' attitudes and behaviours towards safety-critical work tasks as well as to positively correlate with safety compliance and safety participation.

Further, finding by Bass (1985), reported that the higher order factor analysis shown leadership factors and style can be ranked from highest to lowest which also supported by the second dimension of leadership effectiveness studies Bass and Avolio (1990). The factors are ordered as follows: Transformational Leadership, Contingent Reward, Active Management by Exceptions, Passive Management by Exceptions and Laissez-Faire Leadership. This shows that transformational leadership is the best practice that can be applied in all organizations and contexts.

Similarly, in the Malaysian context, Chanthravalli, Fooi, Jamaliah, and Bahaman (2014), reported that in some experiments to test the results of transformational leadership, Bass found that the level of effort by subordinates is between 75% and 82%. It is different in the organization led by transactional leaders where lower effort level can find which is between 58% and 60%. This indicated that transformational leadership is more effective, and workers are more committed to their jobs. Avolio and Bass (2004) argued that transformational leadership theory is cross-cultural and can be used in multiple organizations. By considering all the findings, the researcher opts for transformational leadership behaviour to explore safety management and safety performance in schools.

Barling et al. (2002) pioneered the use of the transformational leadership concept in the field of workplace safety. The researcher further states that transformational leaders motivate their followers to address occupational safety issues, increase

information about safety and risks, and develop innovations that help improve workplace safety. Chanthravalli et al. (2014) pointed out that "a transformational leader wants to create a comfortable and accepting environment for the school." Young (2014) expressed that transformational leadership achieves goals through the utilization of resources wisely.

According to Inness, Turner, Barling and Stride (2010), transformational leadership comprises of four leader behaviours namely idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Each of the four components of transformational leadership theory of Bass Model is relevant to improving workplace safety (Barling et al., 2002).

Mullen and Kelloway (2009), pointed out that idealized influence leaders encourage managers to communicate vision by role modelling and promoting safety. Inspirational motivation leaders are described as the ones who challenge their employees to reach the safety standards and requirements on their own ability. Intellectual stimulation leaders encourage employees to develop innovation to find solutions for safety issues. Finally, individualized consideration leaders demonstrate concern towards employees' well-being. Therefore, it is proven that transformational leadership can give extraordinary outcomes when dealing with critical issues related to safety at schools.

### **Safety Performance**

Safety performance is mostly needed to be demonstrated by teachers since they have the ultimate responsibility and rule enforcer in the school. According to Ssekamanya, Badzis, Ismail, and Abduludin (2016), teachers are on the frontlines when it comes to school safety. They are the one who is dealing with the students inside and outside the classroom daily. Likewise, Whitley, Smith, and Vaillancourt (2013), emphasized that teachers are key personnel in promoting child safety both at schools and in-home environments.

However, teachers as personnel in school who is accountable for students' safety are always in the question of student's safety. Wahmeedh, Faridahwati and Chandrakantan (2011) argued that accidents occur due to various factors such as lack of knowledge, training, lack of supervision and lack of rules implementation. Further, the authors revealed that reducing safety performance leads by human errors to negligence, carelessness of workers, recklessness of worker and lack of monitoring and control contributes to the mismanagement of safety in schools.

Siu et al. (2003) considered the safety performance as the ability to minimize the occurrence of accidents and injuries. The past research in the safety performance had many arguments on the dimensions or components which contribute to the safety

performance in an organization. Griffin and Neal (2000) considered safety knowledge and motivation determined safety performance in the workplace. Similarly, Curcuruto et al. (2016) explained that the most relevant components of safety performance are safety knowledge and safety motivation which reflects safety behaviour. The previous research also found safety knowledge as the predictors of safety performance (Christians et al., 2009).

Consecutively, Burke et al. (2002) stated that in any organization, the safety performance of employees exhibits the safety guidelines and to encourage health and safety at their working place. Mullen and Kelloway (2009) and Inness et al. (2010) revealed that safety performance has two components namely safety compliance and safety participation. Neal and Griffin (1997) generated a model to interpret safety performance by accepting safety the safety compliance and safety participation as safety performance components. Hence three components of safety performance can be acquired from past research which is safety knowledge, safety compliance and safety motivation or safety participation.

Teachers in schools are safety professional working as a key person who receives instructions and executes safety in schools. According to Chang et al. (2012), in the context of the educational field, the teacher adds value to the school's optimal safety performance, by demonstrating their competencies in managing safety in school. According to the researchers, safety professional's competence is acknowledged as the knowledge, skills and attitudes required for successful safety performance. School quality related to student safety is highly associated with the teacher's knowledge and attitude (Yau-ho, 2016). Further, a teacher's subject knowledge and skills are quality indicators of their competence (Mukhopadhyay, 2013) in promoting a safe school environment for children. Hence, the safety performance of teachers is eventually evaluated based on safety knowledge, safety skills and personal attributes towards safety.

Scrutinizing the components of safety performance and teacher's competency, the researcher has emerged with three key dimensions which contribute to teacher's safety performance, namely, knowledge (safety knowledge), skills (safety compliance) and personal attributes (safety participation or motivation)

## **METHOD**

This research applied quantitative design which uses the non-experimental survey technique to collect data. The location of this study is in Subang Jaya which is situated in the district of Petaling, state of Selangor. There are 11 national primary schools and the total population of teachers is 497 teachers. The sample of this research is chosen according to the table of sample size determination Krejcie and Morgan (1970).

Therefore, the sample size of 214 teachers is set for the study. The assessment instrument used in this research is survey questions which consist of 4 parts of the questionnaire and the number of items for every section is demonstrated in Table 1. All the constructed questionnaires are based on the 4 – point Likert scale, namely, 1 – Strongly disagree, 2 – Disagree, 3 – Agree and 4 – Strongly Agree.

Table 1  
*Instrument and Number of Items*

<b>Instrument</b>	<b>Number of Items</b>
Safety management questionnaire	35
Transformational leadership questionnaire	18
Safety performance questionnaire	19

### ***Reliability***

A pilot study was conducted by the researcher on 45 teachers from national primary schools in Puchong, Selangor. Reliability scores were investigated using Cronbach's alpha measurement. All the instrument values surpass the acceptable reliability value ranging in between 0.65 to 0.95 and the number of items for the questionnaire remains unchanged after the pilot study. The reliability test for safety management was at 0.884, transformational leadership at 0.903 and safety performance at 0.82.

### ***Data Collection***

Proceedings to the data collection require permission from the authorities to enter schools and carry out the study. For this study, the researcher sought clearance from the EPRD and Selangor State Education Department before conducting the real study. The study was administered to 214 primary school teachers in Subang Jaya.

### ***Data Analysis***

Data collected from the research was analysed using the descriptive statistics and inferential statistics in Statistics Packages for the Social Sciences (SPSS). Descriptive statistics was used to describe the level of the variables based on indicators such as the mean scores and standard deviation. Meanwhile, inferential statistics (correlation and regression analysis) was used to analyse the non-causal and causal effects between variables.

## **FINDINGS**



Table 2 shows the demographic analysis of the respondents. The analysis portrays that female respondents are more than male respondents 49.6%. The respondents also mostly hold a bachelor's degree with a percentage of 85.5% with 35.5% has 6 to 10 years of working experience.

Table 2  
*Respondents profile analysis*

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Gender		
Male	54	25.2
Female	160	74.8
Academic qualifications		
Diploma	23	10.7
Bachelor's Degree	183	85.5
Master's Degree	8	3.7
Years of teaching experience		
Less than 5 years	45	21.0
6 - 10 years	76	35.5
11 - 15 years	44	20.6
More than 16 years	49	22.9

The researcher analysed the data using the mean scores to state the level of safety management practices, transformational leadership exercises and safety performance of teachers. The mean scores and the level of variables are set between 3.00 to 4.00 for high level, moderate is between 2.00 to 2.99 and low is between 1.00 to 1.99. Table 3 shows the total mean scores, standard deviation (SD), and the level of all the variables tested.

Table 3  
*Total mean scores, SD and level of variables*

<b>Variables</b>	<b>Total Mean Scores</b>	<b>SD</b>	<b>Level</b>
Transformational Leadership	3.10	.33	High
Safety Performance	3.02	.27	High
Safety Management	2.99	.30	Moderate

Spearman Rho correlation was performed to identify the relationship between safety management, transformational leadership and safety performance. Table 4 shows the correlation value and the strength between the variables.

Table 4  
*Correlation Analysis between Variables*

	<b>Transformational Leadership</b>	<b>Safety Management</b>	<b>Safety Performance</b>
Transformational Leadership	1	.498 (weak)	.519 (average)
Safety Management	.498 (weak)	1	.678 (average)
Safety Performance	.519 (average)	.678 (average)	1

Note: \*\* Correlation is significant at the 0.05 level (2-tailed)

Findings revealed a positive relationship between safety management, transformational leadership and safety performance. The relationship between safety management practices and transformational leadership exists, yet the strength of the relationship is weak with  $r = .498$ . Similarly, the relationship between transformational leadership and safety performance and the relationship between safety performance and safety management also present with average correlation results of  $r = .519$  and  $r = .678$  respectively.

Regression analysis was performed to investigate the degree in which transformational leadership and safety management affect safety performance and how effective is transformational leadership in producing changes in safety management and safety performance. Table 5 represents the regression analysis results for the variables.

Table 5: *Regression Analysis on Variables*

		<b>R<sup>2</sup></b>	<b>β</b>
Transformational Leadership	—————▶ Safety Management	.231	.440
Transformational Leadership	—————▶ Safety Performance	.347	.489
Safety Management	—————▶ Safety Performance	.433	.726

A linear regression analysis was calculated to predict safety management based on the effect of transformational leadership. A significant regression equation was found [ $F(1,212) = 63.69, p < .000$ ], with a  $R^2$  of .231. Thus, safety management practice at school was increased by .44 for each unit of transformational leadership and 23.1% of safety management was contributed by transformational leadership behaviour by headmasters.

Meanwhile, the prediction of safety performance based on the effect of transformational leadership was also revealed a significant result. A significant

regression equation was found ( $F(1,212) = 112.62, p < .000$ ), with a  $R^2$  of .347. Therefore, the safety performance of teachers is increased by .489 for each unit of transformational leadership and 34.7% of teacher's safety performance is contributed by the transformational leadership behaviour of headmasters.

The linear regression analysis on the prediction of safety management with the effect of safety performance also discovered a significant result. The significant regression equation shows [ $F(1,212) = 162.03, p < .000$ ], with a  $R^2$  of .433. Thus, the safety performance in school is increased by .726 for each unit of safety management and 43.3% of teacher's safety performance is resulted by safety management practices in schools.

## **DISCUSSION**

The discussion focusses on the analysis and conclusions, particularly according to the results obtained from the data analysis. The analysis of the level of variables and relationships between variables has been made on the perception by 214 respondents who are the primary school teachers in Subang Jaya. In the context of this study, the safety management level gave a moderate value. This directs to the requirements where more attention needed in those areas to maximize the safety management practices at primary schools. This is consistent with findings by Ssekamanya, Mastura, Khamsiah and Dayang (2016), where less coverage has been done on safety related matters in Malaysia and importance on the implementation of safety management plan and policy need to emphasized Thus, more room for improvement can be done in order to upgrade the 5 aspects of management functions namely planning, organizing, identification of risk, implementation and control in order to improve the safety management practices at schools.

The overall findings on transformational leadership exercises provide high level of practices. This aspect shows that the head of schools is supporting and letting the teachers decide on safety matters although they are controlled on providing solutions for problem solving. This is supported by Shamsuri (2008) and Anantha et al. (2016), who notified that the school heads' leadership role is at a good level. Thus, transformational leadership behaviour effectively practiced by headmasters on teachers who are responsible for safety related matters.

Meanwhile, safety performance of teachers was at high level. This may due to their past experiences on handling the risky situation and the hands-on training given by the management. It is also shown that teachers are highly concern about safety matters, showing their right attitudes and attributes when dealing with safety issues. Chandrakantan et al. (2016), supported that the teachers' proactive attitude towards safety can be seen through their ability in applying safety procedures. Therefore, the

contribution of teachers in terms of their knowledge, skills and attitudes is essential in implementing the organizational safety function.

The findings on the relationship between safety management, headmasters' transformational leadership and safety performance of teachers indicate that headmasters' transformational leadership behaviours contribute to the safety management practices at school although the strength is weak. Meanwhile, the relationship between headmasters' transformational leadership and safety performance of teachers generates average outcomes and similarly, the relationship between safety performance and safety management is also at an average level with a slightly higher correlation. Through number of findings by Mullen and Kelloway (2009), Inness et al. (2010), Zohar (2002), Cummings et al. (2010) and Lievens and Vlenck (2013), it was discovered that transformational leadership has a positive relationship with safety management and safety performance under their viewpoint. Thus, the existence of the relationship between safety management, transformational leadership and safety performance regardless of their strength are believed to tackle the safety related issues comprehensively.

Based on the regression analysis, it can be concluded that teacher's safety performance mostly contributed by safety management (43.3%) which is directly controlled by the headmasters' transformational leadership behaviour (23.1%). This discovery shows transformational leadership is more effective once it is practiced on teachers who are in the implementation process of school safety. The effect of transformational leadership on safety performance was clearly explained and supported in the findings by Neal and Griffin (2006), Clarke and Ward (2006), Lun and Wahab (2017) and Fernandez-muniz, Montes-peon and Vazquez-ordas (2014). Therefore, the conclusion is drawn that transformational leadership is the acceptable approach to be the change agent of teacher's behaviours in order to achieve the safety performance in schools.

## **SIGNIFICANT OF STUDY**

The findings of this study aim to provide researchers and educators in Malaysia with an insight into the safety management in schools, transformational leadership behaviour of school heads and teacher's safety performance in schools.

School administrators will be obtaining knowledge on the appropriate steps to be taken in enhancing the safety management and teacher's safety performance through their transformational leadership behaviour. As for teachers, this study will deepen understanding of safety related matters and further will urge them to develop safety related knowledge, skills and behaviour through formal and informal training.

Meanwhile, policymakers will benefit from the change that should be made in the future for the betterment of safety management in school with the aim of reducing the number of incidents and accident cases the school students.

## CONCLUSION

The growing concern on safety issues in the schools and the coverage given by media on the accident cases in schools in recent years has called for a study on school's safety management, transformational leadership and teacher's safety performance. The research makes an important contribution to safety management, leadership and teacher's safety performance literature. It opens a new direction of looking at the safety management practices and teacher's safety performance at schools by developing headmasters' transformational leadership.

Headmasters' effective transformational leadership qualities could gain better outcomes and are expected to be the change agent for the teachers to contribute to safety management in school. Teachers' who are the key asset to run the school organization, can upgrade themselves to be more self-conscious and create awareness when comes to safety matters.

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