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Private School Teachers' Transformational Leadership Practices and Students' Interest in Science: A Research Framework

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ABSTRACT

This article presents the literature review and establishes the need to investigate the relationship between teachers' transformational leadership practices and students' interest in Science in private schools in Klang Valley, Malaysia. There is also the need to examine the predicting dimensions of the teachers' transformational leadership practices on students' interest in Science in private school, so as to improve the students' learning outcomes and subsequently the students' academic success in Science subjects as well as the productivity and development of educational institutions. This paper also proposed four distinctive research objectives and sampled at least 400 respondents of Form 1 to Form 3 students from the population of private secondary schools in Klang Valley, that are aged from 13 to 15 years old. The analysis that will be carried out is both descriptive and inferential analysis methods with Statistical Packages for the Social Sciences (SPSS). The findings of this study are expected to generate knowledge that will be valuable to all school administrators and Science teachers in developing teaching strategies and enhancing instructional design that will allow students to achieve better academic formation. The formation of students with a higher level of interest in science may also benefit the government, parents, students, and society socially and economically.

Keywords: Transformational Leadership, Students' Interest in Science, Private School, Klang Valley

INTRODUCTION

Recently, the standard of teaching and learning of Science subject has become a problem in hand (Sumintono, 2017; Yunus & Sukri, 2017; Mahmud et al., 2018; Wong et al., 2021). A number of researchers admitted that studying Science at secondary school might not only be aimed at preparing students for education at tertiary level, but it's also necessary for life-long learning readiness and interpretation of the phenomenon around them (Kaptan & Timurlenk, 2012; Das & Singh, 2014). The education process is described as professional activity that requires effective decision-making by teachers. The decision-making involved include teaching content, methods of teaching, laboratory planning and class management preparation (Stephenson, 2017; Sulaiman et al., 2017). Teachers are not only accountable for describing, providing notes and using the teaching board or other teaching aids, but also to ensure that students are intrigued by the lesson plans (Stronge, 2018). As defined by Venville & Dawson (2004), Gupta et al. (2015) and Brookes (2019), Science is not just knowledge; it requires the active participation of students in the activities, which means that students are expected to understand the information and to make an effort to search and gather the information. As a result of this, the relationship between interest and learning has been studied since the beginning of the 19th century (Krapp, Hidi & Renninger, 2015; Guo et al., 2019; Triarisanti & Purnawarman, 2019). Research on different aspects of interest has continued since then and there was a move to look at "influence of interest on learning and development and the origin and transformation of interests" towards the end of the 20th century (Krapp, Hidi & Renninger, 2015). The reason for this is the increasing body of evidence which shows that research has shown that increased interest in a subject can increase student achievement (Hulleman & Harackiewicz, 2009; Zhu et al., 2009; Wiradarma et al., 2021). It is well-known that interest in a subject area is intensely influenced by the people around us and the associations we form with them (Rodd, Reiss & Mujtaba, 2013). A teacher is also the main person who plays a role in sparking and fostering interest in a specific subject. Numerous studies have discovered that teacher leadership styles have a significant impact on students' academic success (Seritanondh, 2013; Beauchamp et al., 2014) and on the efficiency of teachers and administrators (Xu & Patmor, 2012). As cited by Ahmed & Qazi (2011), effective teacher leadership promotes not only students' motivation to learn, but also the productivity and development of educational institutions. Moreover, teacher leaders support teaching - learning process for themselves and others, foster effective communication among colleagues, and take opportunities to nurture progressive outcomes in educational settings (Kilinç, 2014). Tsai (2015) stated that the higher the passion that teacher leaders can uphold, the better they will be able to provide opportunities for learners, the higher quality their teaching will be, and the better the learning outcomes their students will achieve.

To date, secondary school education has been receiving substantial attention of various stakeholders across the globe. It is deemed vital not only in bridging the primary education to the tertiary education but also to the labour market (Katayama, Assad & Bell, 2011). Irina Bokava, the Director-General of UNESCO, had asserted the importance of secondary school education by attributing it as a fundamental for youth to acquire an adequate knowledge and skills in having a decent livelihood in today's competitive globalized economic and competitive world (as cited by Krishnapillai et al., 2016). Several studies have found that academic achievement of school is among the key criteria in guiding the parents to select the ideal school for their children (Yaacob, Osman & Bachok, 2014). Krishnapillai et al. (2016) reported that parents are more concerned on the basic necessities of attending school such as quality teaching and well-being of children instead of additional features of the school i.e. advanced facilities and advantageous environment. Thus, it is a must for private school

operators to understand the concerns of parents in selecting the school. In order to attract more students for enrolment, private schools must ensure that their schools are providing quality teaching, which in turns will contributes to the better learning outcomes of the students. In this study, only the private schools that follow the education syllabus of the Malaysian government (national curriculum) in Klang Valley are chosen. Klang Valley is chosen because it has the highest number of private schools in Malaysia as compared to other states (MOE, 2022).

PROBLEM STATEMENT

The most important and alarming challenge is students' decreasing motivation and interest in Sciences especially in empowering Sciences (Potvin & Hasni, 2014; Kiemer et al., 2015; Betsy et al., 2016). With latest study on youths' declining motivation in learning Mathematics and Science over time (Vedder-Weiss & Fortus, 2012; Plenty & Heubeck, 2013), it has been challenging for teachers to maintain greater student interest and achievement in Science subject. Students' interest in STEM (Science, Technology, Engineering and Mathematics) subjects has also dropped significantly throughout secondary education, as reported by Kiemer et al. (2015). Despite concerted and systematic efforts to increase students' participation in Science studies and foster positive attitudes toward Science and technology, the percentage of students enrolled in Science at the upper secondary level remains below the targeted 60:40 (Science to arts) ratio, which should be one area of concern (Halim & Meerah, 2016). The open system in education coupled with the misconception about learning Science has further worsened the low enrolment in the Sciences as compared to that in the arts stream at higher secondary level. Although a number of different issues have been identified, such as the perceptions of Science/scientists and a lack of awareness of STEM-based careers (Halim & Meerah, 2016), a recurring theme is the reduction of student interest in Science as they progress through secondary school (Kiemer et al.,2015).

Since 2016, the Malaysian education system has adopted the Dual-Language Programme (DLP), which includes primary and secondary schools. It's part of the government's policy of "Upholding the Malay Language and Strengthening the English Language." Collaboration between language and mathematics knowledge, as well as scientific knowledge, may help an individual improve their English language comprehension. To reiterate, learning science and mathematics in English aligns with the Malaysian Education Blueprint (2013–2025)'s goal of developing bilingual students in Malay and English (Ministry of Education, 2015).

In general, there have been few studies that have looked into the execution of this programme on a small scale. In 2019, Suliman, Nor & Yunus attempted to look at the programme's long-term sustainability from the perspective of students, including their preparedness to learn in English, problems experienced, and suggestions for improvement. Although 88% of the students claimed that the DLP should be continued, around 93% of them believe that the programme needs to be improved. As Science and Mathematics are vastly different from English, the students seem to juggle between the content and language in the learning process. Din & Wing (2007) reported that students struggled with learning Science in English because they struggled to follow their teachers' instruction in the second language, based on a study of 100 Hong Kong schools. In Malaysia, Sulaiman (2017) examined first-year students' readiness to learn Science in English in urban and rural regions. In three primary disciplines, students in the urban outperformed their counterparts: communication, classification, and observation. In a study conducted by Suliman, Nor & Yunus (2021) to illustrate students' acceptance towards the DLP which involved students from different locality and type of school, the respondents

perceived that the DLP needs improvement for a better implementation. In schools that employ English as a medium of instruction, paying attention to potential language-related issues and ensuring the quality of instruction is critical (Margic & Vodopija-Krstanović, 2018). Some suggestions by DLP students, as reported by Suliman et al. (2019) include improving the quality of teachers, using technology in the learning process, providing early exposure to students, adding another language in the teaching and learning process and encouraging further use of the English language throughout the lesson. Therefore, qualified and competent teachers are required to provide students with the opportunity to develop their interest in the content of Science subject in order to ensure that this DLP maintains its sustainability (Suliman et al., 2019). The presence of both qualified teachers and students with high interest in Science in the DLP may enhance the teaching and learning processes and result in better quality education. Quality education is considered as an important element of sustainable development (Li, Yamaguchi & Takada, 2018). As agreed by Ong (2009), teachers' way of teaching also plays an important role in increasing students' learning outcome and achievement in Science and Mathematics. Mustakim, Mustapha & Lebar (2018) reinforce this by stating that teachers are expected to devise activities that are appropriate for students in order to create a fun learning atmosphere. It is thought that if teachers are unable to support students in their learning, their motivation and self-confidence would deteriorate. Teachers' contributions are critical in this scenario to ensure that the teaching and learning process runs smoothly.

For schools to implement DLP, the schools have to fulfil the criteria stated by the Ministry. The criteria for school to implement DLP are that the schools must have adequate resources, the Principal or Headmaster and teachers are willing to implement DLP, demand and support from parents, and the school achievement in Bahasa Malaysia should be at par (Ministry of Education, 2015). DLP is a voluntary programme, in which the school has the right to reject it should they are not interested or willing to implement it. It does not involve all schools and students as it provides flexibility for the schools, teachers, students and parents to choose their preferred language of instruction (Suliman, Nor & Yunus, 2018). Unlike government schools, all private schools have executed the teaching of Science and Mathematics in which students and teachers fully utilise English in the lessons; to cater for the increasing demands from the parents, with parents urging their children to learn the subject in English (Suliman, Nor & Yunus, 2018). The data from the study of Bullah & Yunus (2018) has shown that most of the parents prefer to choose school that implement DLP, whereby 75% of the parents preferred to send their children to the school that conduct teaching and learning session of Mathematics and Science in English. A private school is run by a private organisation and funded by tuition fees paid by students. Private schools typically charge more fees to cover better facilities and cutting-edge technology. The administration regulates the fees and recruitment of teachers in private schools. Following that, school administrators are in charge of teacher recruiting, with the prerequisites for becoming a teacher being solely determined by the school. Although private schools follow the same government-approved curriculum, the mode of delivery is determined by the school board (SchoolAdvisor, 2021), which emphasise on the urgent needs to have qualified and competent Science teachers in private schools to conduct teaching and learning session of Science in English. For private schools, being one of the few DLP schools in Malaysia, especially in urban Klang Valley area will be an added advantage in attracting more parents to send their children to study in private schools. Parents always want the best for their children, which is why choosing a good school is so important (Alyssa, 2020).

Although teachers are recognised as critical figures in improving teaching and learning conditions in schools, little is known about the leadership strategies to which teachers should

devote their time and effort to improve outcomes (e.g. students' interest in Science subject). Harrison (2011) suggested that transformational leadership behaviours of instructors has meaningful effects on student cognitive learning, affective learning, perceptions of teacher credibility, and communication satisfaction than transactional behaviours. Previous study by Pounder (2008), Hoehl (2008), Bolkan & Goodboy (2009) and Harrison (2011) had reported direct evidence of the relationship between instructor charisma, intellectual stimulation, and inspirational motivation and student cognitive learning, affective learning, student motivation, and student perceptions of instructor credibility, but not on the relationship between teacher transformational leadership practices and student's interest in Science.

With limitation and scarcity on the studies pertaining to the understanding of what teachers' transformational leadership practices contributes to levels of students' interest in Science, especially after the implementation of DLP, it has motivated this study, aiming to unravel the relationship between the two variables of teachers' transformational leadership practices and students' interest in Science in Klang Valley's private schools.

OBJECTIVES OF THE STUDY

Following the literature review as presented above, this study aims investigate the relationship between teachers' transformational leadership practices and students' interest in Science in private schools in Klang Valley, Malaysia by answering the following specific objectives:

1. To determine the level of students' interest in Science in Private Schools, Malaysia.
2. The determine the level of teachers' transformational leadership practices in Private Schools, Malaysia.
3. To investigate the relationship between teachers' transformational leadership practices and students' interest in Science in Private Schools, Malaysia.
4. To investigate the predicting dimensions of the teachers' transformational leadership practices on students' interest in Science in Private Schools, Malaysia.

RATIONALE OF THE STUDY

The relationship between learning and interest has been investigated since the start of the 19th century (Krapp, Hidi & Renninger, 2015). It has been proven that increased interest in a subject can increase student achievement (Hulleman & Harackiewicz, 2009). It is also well-established in the Science education literature that increasing student interest benefits student engagement and learning (Hidi & Renninger, 2006; National Foundation for Educational Research, 2011; Darlington, 2017). Moreover, it can have a reflective constructive influence on an individual's attention levels, recall of information, persistence and effort in the pursuit of knowledge (Hidi & Renninger, 2006; Krapp & Prenzel, 2011), all of which are important for the individual and for classroom practice.

One curriculum area where there are currently particular concerns is that of Science and according to the two surveys conducted in England, student interest and career aspirations with regards to Science change throughout their school careers (Dewitt, Archer & Osborne, 2014). Therefore, developing students' interest has to be a main educational objective for schools as well as individual teachers. Hence, it is crucial to investigate what factors influence the development and sustainability of students' interest in secondary Science lessons. For many students, this is the last time they will engage formally with learning Science, although

increased interest may increase the number of students who continue with Science study or complete this study with more positive attitudes towards Science. This study is rooted on constructivism learning theory which is based on the idea that students actually create their own learning based on their previous experiences. Students take what they're being taught and add it to their previous knowledge and experiences, creating a reality that's unique to them. This learning theory focuses on learning as an active process, which is personal and individual for each student (Teaching & Education, 2020).

Teachers can utilize constructivism to help understand that each student will bring their own past to the classroom every day. Teachers in constructivist classrooms act as more of a guide to helping students create their own learning and understanding (Teaching & Education, 2020). This theory invites teachers to consider what their students already know before starting a lesson. This theory plays out in many classrooms every day when teachers begin lessons by asking their students what they already know about a particular concept. A constructivist classroom is one in which students learn by doing, rather than by passively absorbing knowledge. Constructivism plays out in many early childhood education programs, where children spend their days engaged in hands-on activities (Jagodowski, 2020).

According to Kohn (2014), in order for teachers to really teach their students, teachers need to take a step back and allow students to do some of the planning. Kohn (2014) believes that teachers need to build a classroom community where students' needs and interests are met. When this is done students will be open to the learning that needs to happen in the class. One key component of Alfie Kohn's theory is exploration. Kohn (2014) stated that students need to be given the freedom to discover, explore and struggle with ideas in order to truly learn. Another aspect of Kohn's theory is that teacher need to show respect for their students and make the classrooms a safe place for learning, relationship building, and development to occur (Kohn, 2014). In regard to Kohn's theory, it is suggested that this complements an assertive model. The teacher has to determine that the mastery of classroom management must include the ability to teach to the learning style of the group instead of the individual, and in the organizing of lessons and teaching methods. The goal of classroom management is to create an environment which not only stimulates student learning but also motivates students to learn. To date, studies investigating the relationship between the two variables of teachers' transformational leadership and students' interest in Science are still limited. Thus, a quantitative study on this relationship will be conducted to fill this research gap.

SIGNIFICANCE OF THE STUDY

This study is significant not only to one private school to help its stakeholders know more about what type of teacher leadership practices they have and what type of teacher leadership they need, but also to the various other private schools in Malaysia to learn more about practices of leadership to assess their own teachers. It is greatly anticipated that the findings of this study might create knowledge which are useful to all school principals and Science teachers in establishing teaching strategies, as well as improving instructional design that permit students to acquire better academic formation. The government, parents, students and the society might also benefit socially and economically as a result of the formation of students with higher level of interest in Science.

LITERATURE REVIEW

Teachers' Transformational Leadership Practices

Effective teacher leadership, according to Ahmed & Qazi (2011), boosts not just students' enthusiasm to learn, but also educational institutions' productivity and progress. Several studies have discovered that teacher leadership styles have a significant impact on students' academic success (Seritanondh, 2013; Beauchamp et al., 2014) as well as teacher and administrative effectiveness (Xu & Patmor, 2012). As a result, the quality of teachers is the driving force behind any society's progress. Transformational leaders are required for a country to venture into new dimensions of development. For advanced teaching and establishing leadership value in the educational system, teachers must be dynamic, creative, and committed (Pushpanadham & Nambumadathil, 2020). According to Murphy (2005), the development of teacher leadership has an impact on both individual educators and teaching as a profession; it also helps to strengthen the profession's professional nature. The Transformational Leadership Theory has been linked to the idea of new leadership, which has been raised in the study area during the previous few decades (Avolio & Bass, 1995; Dubrin, 2004; Bass & Bass, 2009; Yukl, 2012). Transformational leadership, it is argued, is well adapted to the demands of today's educational reform.

Transformational leadership includes modelling behaviours that empower and inspire others, go beyond one's own self-interests, and offer others the confidence to reach higher levels of performance. The four components of transformational leadership are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006). Idealized influence occurs when leaders build trust and respect among those they lead, and model ethically desirable behaviours by demonstrating personal principles. Leaders inspire and energize others to achieve their goals through inspirational motivation, which requires communicating high expectations to followers. Intellectual stimulation includes encouraging people to consider issues from different perspectives and to question their own and others' commonly held presumptions. Finally, individualized consideration occurs when leaders identify and respond to others' personal and psychological needs, demonstrate genuine care and concern, and applaud others' triumphs (Bass & Riggio, 2006).

Students' Interest in Science

It has been long acknowledged that interest plays a key role in motivating learners and in improving the quality of learning. There is an increasing number of research suggesting that increasing student interest in subject matter can make a significant contribution to students' achievement through increasing both their positive affective and cognitive engagement with the subject content. For example, increased interest boosts intrinsic motivation (Schraw, Flowerday & Lehman, 2001) and can increase achievement (Hulleman & Harackiewicz, 2009; Harackiewicz et al., 2014). Other studies (Hidi & Renninger, 2006; Krapp & Prenzel, 2011; Wiseman & Hunt, 2013) suggest that the benefits of developing interest include more focused attention and the enabling of integration of prior knowledge as well as having a positive impact on a range of abilities such as recognition, recall, persistence, effort and academic motivation.

Science education is one of the most important subjects in school due to its significance to students' lives and the comprehensively applicable problem-solving and critical thinking skills it uses and develops. These are lifelong skills that allow students to generate ideas, weigh decisions intelligently and even understand the evidence behind public policy-making (Arrieta

et al., 2020). Engaging young students in Science from the start with exciting material and experiences will motivates them to pursue Sciences throughout school and equip them with problem-solving skills (Helm & Katz, 2016). Students who are interested in a subject are more likely to attend class, pay attention, become engaged, enroll in more courses, process information well, and eventually do well (Hidi & Harackiewicz, 2000). The motivating process of interest energizes learning and directs academic and career paths (Renninger & Hidi, 2016). It will effect student learning outcomes if there is no interest in learning to boost student excitement for learning (Riwahyudin, 2015; KHairina & Syafrina, 2017). Hence, there's an urgent need for an effective instructional behaviours and teaching materials that can stimulate students' interest in studying, particularly Science. In a nutshell, in order to increase student learning outcomes, students must be interested in learning, as this impacts whether or not teaching and learning objectives are met. The more interested a student is, the better the learning outcomes (Toma & Greca, 2018). Teachers have a critical role to play in increasing student learning outcomes by cultivating and strengthening students' interest in learning.

Relationship between Teachers' Transformational Leadership and Students' Interest

The primary goals of teacher leadership are to improve students' academic performance while also providing an environment in which they can develop their whole abilities. Educational leaders' attitudes and strategies can improve students' knowledge, skills, ability, integrity, consistency, and competency, as well as their intellectual, social, emotional, and physical growth (Rashid et al., 2020). Scholars have developed numerous leadership models in their efforts to discover "effective leadership" to improve student learning outcomes as part of the school restructuring and improvement movements in the late 1990s. Interest research allows for the analysis of specific processes, such as affect and how it affects learning and student accomplishment, as well as the characteristics of the state that comes with interested engagements. Ainley, Hidi, et al. (2002) and Ainley, Hillman, et al. (2002), for example, looked into the relationship between various types of student interests, affective reactions, persistence, and learning outcomes. Individual interest and intrinsic motivation tend to describe outcomes in a comparable way. These include the drive for mastery, the enjoyment of focused and ongoing participation in a task for the purpose of the task itself, and the quest of challenge (Renninger, 2000).

According to Harvey et al. (2003), there is a link between a teacher's transformational leadership and student engagement, student report of instructor performance, and student respect for the instructor. Jingkun et al. (2021) concurred with this conclusion, reporting that teacher transformative leadership contributes to students' improved motivation to study. Noland & Richards (2014) surveyed 273 college students and discovered a positive association between teacher transformational leadership and student outcomes (i.e. student motivation, emotional learning, and learning markers) among college students in another study. Meanwhile, Rashid et al. (2020) had selected 29 Heads of Departments (HODs) and 206 students from five public sector universities in Khyber Pakhtukhawa through simple random and stratified (proportionate) sampling techniques, and found a significant relationship between teachers' transformational leadership style and students' academic achievement. Data was collected through a five likert scale questionnaire, the reliability co-efficient of which was 0.82 and 0.86 for HODs and students respectively.

In another study by Kim et al. (2021) on 295 middle school students from 3 private middle schools located in the southwestern area in the USA, they found that transformational leadership is important in enhancing middle school students' expectancy-value in physical

education (PE). Most importantly, this study indicated that transformational leadership facilitates teaching and students' learning. Moreover, Al Saidi & Ali (2021) also reported that there was strong positive significant relationship between teachers' leadership skills and students' academic optimism in basic and post basic education schools. This further reiterated that teacher leadership is an effective success factor for student learning. Hence, this study aims to identify perceptions of teacher leadership practices and to what extent these practices affect student engagement or interest, which can subsequently raise student learning. Even though past research has shown that transformational leadership practices affects student's interest, studies focusing on private schools and student's interest especially in Science subject are rather scarce and should be research further.

METHODOLOGY

As the research framework, this study uses a non-experimental, survey research method. According to Djamba (2002), survey research is quantitative study in which researchers ask a group of individuals (respondents) a series of questions on their beliefs, views, object qualities, and past or current behaviour. The survey research approach is used to ask people questions about their opinions and behaviours. "Surveys are good vehicles for evaluating attitudes and orientations in a big population in a short period" (page 118), according to Babbie (2013), and the results have a high degree of generalizability (Flick, 2015). Furthermore, this strategy is highly beneficial for gathering data about phenomena that cannot be viewed directly (Babbie, 2013). The samples of this study are students studying in private schools in Klang Valley in the academic year 2022. Klang Valley is chosen because it had the highest number of private schools in Malaysia as compared to other states (MOE, 2022). There is a total of 25 private schools in Klang Valley. The target sample of the present study comprised of 400 Form 1 to Form 3 students from private secondary schools aged from 13 to 15 years old. They are chosen based on purposive sampling whereby only students enrolled in the DLP (the Form 1 to Form 3 students) are selected to take part in the study. The samples of students are selected randomly from each school with the sample size being determined based on the determination table Krejcie and Morgan (1970). Thus, for this study, a sample size of 361 respondents of various background out of 6,000 students from 25 private schools in Klang Valley are required at random based on the determination table Krejcie and Morgan (1970). However, 400 students are selected for accuracy purpose in the event of incomplete forms. The instruments were identified based on the research objectives and literature reviews. As such, the Transformational Teaching Questionnaire (TTQ) survey instrument developed by Beauchamp et al. (2010) is used to determine the teachers' transformational leadership practices; Student Interests and Motivation in Science Questionnaire (SIMSQ) developed by Hassan (2008) is used to determine the students' interest in Science. Required permissions were obtained from the instrument developers via e-mail to use the instruments since both instruments are not in the public domain (Kimberlin & Winterstein, 2008). Students will be given a brief explanation on the importance of research, with confidentiality and anonymity of the answers guaranteed before the link of Google Form questionnaires are shared to them via email and WhatsApp. Using Google Form as research instruments is considered reliable because of all the questionnaires are filled in, and nothing is broken as if done offline (as cited in Wachyuni & Kusumaningrum, 2020). The data collected will be analyzed using both descriptive and inferential analysis method, since it is a quantitative analysis (Frels & Onwuegbuzie, 2013). Descriptive analysis of the demographic profile describes the basic features of the data. This is important, as it explains the background of the respondents. Descriptive statistics in terms of mean and standard deviation are used to analyze the first two research questions. Multiple

regression analysis is conducted to describe the relationship between the variables while correlation analysis is used to test the statistical significance of the relationship.

Table 1
Descriptive Table to Illustrate the Link between Research Question, Types of Data and Analysis

Research Question	Types of Data to be collected	Types of Analysis
1. What is the level of students' interest in science as perceived by the students in Private Schools, Klang Valley, Malaysia?	Students' Interest in Science	Descriptive Statistic: Mean Score, Percentage, Frequency, Standard Deviation
2. What are the teacher transformational leadership practices in Private Schools, Klang Valley, Malaysia?	Teacher Transformational Leadership Practices	Descriptive Statistic: Mean Score, Percentage, Frequency, Standard Deviation
3. Is there any significant relationship between teacher transformational leadership practices and student's interest in Science in Private Schools, Klang Valley, Malaysia?	Teacher Transformational Leadership Practices and Students' Interest in Science	Inferential Statistic: Pearson *r* Correlation
4. Which dimensions of teacher transformational leadership practices are predictors of student's interest in Science in Private Schools, Klang Valley, Malaysia?	Teacher Transformational Leadership Practices and Students' Interest in Science	Inferential Statistic: Multiple Regression Analysis

CONCLUSION

Studies on teachers' transformational leadership practices provide some insights into the qualities that connect teachers' transformational leadership practices and students' interest as it is well-known that teacher is the main person who plays a role in sparking and fostering interest in a specific subject. The study's main goal is to present empirical data and well-documented information on the relationship between teachers' transformational leadership practices and students' interest in Science in private schools so as to improve the students' learning outcomes and subsequently the students' academic success in Science subject as well as the productivity and development of educational institutions. This study is the first to show a relationship between these two variables at the same time, extending previous studies. Concerning the study's limitations, comparable research can be carried out in additional cities

and states in order to make apparent generalizations, as the current study is only done in the Klang Valley area, which covers Kuala Lumpur and its suburbs and adjoining cities and towns in the state of Selangor due to time and situational constraints. As students may have different perceptions in different locations, therefore, the results are not generalizable to other cities and states.

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