

*Investigate The Relationship Between Head Teacher Ethical Leadership Style and
Teacher's Motivation at Secondary Level*

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Abstract

The relationship between a head teacher's ethical leadership style and teacher motivation at the secondary level is a critical area of educational research. Ethical leadership, characterized by fairness, integrity, and moral guidance, can significantly impact teachers' motivation. This study aims to explore the correlation between head teacher ethical leadership styles and teacher motivation within secondary-level educational settings. This quantitative and descriptive study investigates ethical leadership among secondary school teachers (SSTs) in District Talagang (Chakwal), comprising both male and female teachers across 120 public secondary schools. The findings illuminate that a substantial majority of teachers, exceeding 80%, perceive their head teachers as exemplars of ethical leadership. This indicates that ethical leadership profoundly influences teacher motivation and contributes to a positive school culture. Teachers who perceive their head teachers as trustworthy, transparent, fair, and just express a deeper engagement with their work and stronger connections with colleagues and students. This highlights ethical leadership's role in nurturing a sense of equity and respect within the school community, propelling teachers to excel in their roles.

Keywords: Ethical leadership styles, teachers performance, Secondary level

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INTRODUCTION

Background of the Study:

Inculcating ethical principles in the next generation is another significant and obvious purpose of the school, in addition to socialization. In light of this environment, the head teacher creates the crucial connection between the school and the educational system as a whole. The head teacher oversees a number of important areas in the school and carries out a wide range of managerial duties in addition to their academic duties. The principal develops the school's resources, culture, internal procedures, and interpersonal ties. (Kennedy & Lee, 2016) and hence has an indirect impact on both student learning and school improvement. (Hallinger & Heck, 2007). Numerous studies concurred with this assertion and stated that the function of the school leader is crucial to regular school operations (Fullan, 2019).

However, it is important to recognize that a school's effectiveness or improvement is not solely determined by the position and efforts of its leader (Ling, Abdullah & Ismail, 2016). The role of instructors as motivators in achieving educational objectives and raising standards is equally crucial (Abdullah, Ling & Sufi, 2018). Therefore, teachers' motivation plays a significant role in producing high-quality students (Ames, 1990). In this context, teachers' active participation is considered essential for the successful implementation of the head teachers' leadership style and the attainment of desired learning goals (Abdullah et al., 2018). Furthermore, their involvement is vital for the effective execution of planned initiatives aimed at improving the school.

To foster teacher motivation, head teachers must clearly communicate goals to their staff, align available resources with those goals, and address administrative concerns (Abdullah et al., 2018). By doing so, they can provide the necessary support and guidance to encourage teachers and facilitate their professional development. It is through this collaborative approach that schools can create a 200n environment conducive to achieving excellence in education.

Furthermore, it is imperative for head teachers to assume responsibility for the well-being of faculty members, ensuring that they do not exhibit reluctance towards the tasks assigned by the school administration, and instead foster commitment and motivation among them (Abdullah et al., 2018). Upholding ethical behavior serves as a benchmark for making sound decisions and adhering to rules and regulations within educational institutions. Brown, Trevino, and Harrison (2005) define ethical leadership as a collaborative process that involves engaging in a "two-way dialogue" with subordinates, cultivating interpersonal relationships, and actively involving them in school decisions and actions.

There are some reasons why ethical leadership practices should be used in today's organizations. For instance, displaying honesty is essential for long-term success. According to (Fritzsche, 2005), enhances the dedication of instructors to the school and encourages people to work together more effectively. Similarly, ethical leadership practices by school principals foster better collaboration among teachers.

Blase & Blase (2000), encourage educators to accept responsibility for resolving issues at the school. Additionally, the fact that head teachers consult with teachers while making decisions encourages collaboration among coworkers, advances their professional growth, and has a beneficial impact on teachers' dedication and drive.

The study demonstrated that ethical leadership behavior has a significant relation on internal

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drive. Examining the links between ethical leadership and school fairness, school cynicism, school performance, school innovation, and internal motivation was done as part of the assessment of studies on ethical leadership. Although it may be argued that there wasn't enough research on the connection between ethical leadership and teacher motivation, the present study will fill a gap in the literature.

Statement of the problem:

This study aims to investigate the relationship between head teacher ethical leadership style and teacher motivation at the secondary level. Several challenges confront this research endeavor, including the absence of specific secondary-level studies on this relationship, the subjectivity inherent in measuring ethical leadership style and teacher motivation, the influence of contextual factors, and the establishment of causal relationships. Furthermore, the generalizability of findings across diverse secondary school contexts and cultures must be considered. By addressing these challenges, this research strives to contribute valuable insights that can inform educational policymakers and practitioners in their efforts to enhance teacher motivation and improve educational outcomes at the secondary level.

Objectives of the Study:

The following objective was formulated for the study;

1. To investigate head teachers ethical leadership style and teachers' motivation at secondary level.

Research Hypotheses:

Hypothesis of the study;

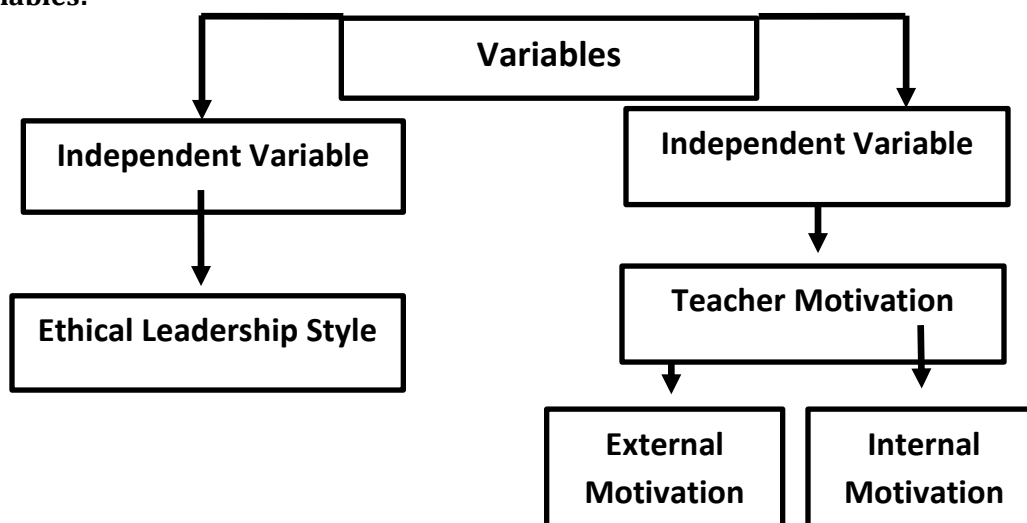
Ho1. There is no significant head teacher's ethical leadership style and teacher's motivation at secondary level.

Significance of the Study:

There is lack of researches on teacher's motivation and head teachers ethical leadership styles at secondary level in Pakistan. This study aims to bring helpful learning environment in the educational institutions. This study will improve the perception of teachers about their head teacher's leadership in the schools. This study will also provide guidelines to the head teachers regarding ethical leadership style. The findings of current study will be useful for the administration, head teachers, teachers, researchers and all stake holders for better understanding and future developments in the education sector.

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Variables:



REVIEW OF RELATED LITRATURE:

Ethics plays a vital role in the field of leadership studies and holds immense importance for organizations. When leaders lack ethics and integrity, it can have detrimental effects on both the stakeholders of the organization and society as a whole. Over the years, there have been numerous high-profile scandals and instances where leaders have been implicated in unethical activities, which have led to a significant increase in the attention given to leadership ethics by scholars and the mainstream media (Hartog, 2015).

Leadership that is devoid of ethics can have far-reaching negative consequences. It erodes trust within the organization and tarnishes the reputation of the leaders and the organization itself. Unethical leadership practices can lead to financial impropriety, unfair treatment of employees, exploitation of resources, and a disregard for societal and environmental well-being.

Leadership Style:

Leadership is an advanced approach to working with individuals within an institution to accomplish tasks effectively. Those in managerial leadership roles must possess a deep understanding of the organizational environment and establish connections between people's behaviors and the structure of the organization. Numerous definitions have been put forth to capture the essence of leadership. For instance, Northouse (2014) defines leadership as a process through which an individual influences a group of individuals to achieve a common goal. Lussier and Achua (2014) describe leadership as the influencing process carried out by leaders and followers to bring about organizational objectives through change. Kouzes and Posner (2013) emphasize the relationship aspect of leadership, viewing it as a dynamic between those aspiring to lead and those willingly choosing to follow.

There are three major leadership styles commonly observed:

1. Autocratic Leadership: This style represents an extreme form of transactional leadership, where the leader exerts significant control and power over employees or team

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members. Decision-making is centralized, with little input from others. While this style can be effective in certain situations that demand quick decision-making or clear directives, it often stifles creativity and limits the development of individuals within the organization.

2. Democratic Leadership: In contrast to autocratic leadership, the democratic style involves the leader inviting team members to contribute to the decision-making process. The leader ultimately makes the final decision, but the input from team members increases job satisfaction and fosters skill development. By involving employees in the decision-making process, democratic leadership empowers individuals, giving them a sense of control over their work and motivating them beyond mere financial rewards.

3. Laissez-Faire Leadership: Laissez-faire leadership is most effective when working with highly skilled and experienced self-starters. In such cases, leaders adopt a hands-off approach, providing minimal guidance or control. However, it is important to note that laissez-faire leadership can also refer to situations where managers are not exerting sufficient control, resulting in a lack of direction and accountability.

Motivation of teachers:

Educational leadership involves the guidance and direction of individuals involved in the process of educating students, with the aim of accomplishing the organizational objectives established by the individuals responsible for its formation. In the educational context, this responsibility typically rests with the school head or principal. It is evident that private schools are often preferred by members of society when it comes to choosing educational institutions for their children. This preference is rooted in the belief that teachers in private schools exhibit exceptional dedication and perform better in their roles. Additionally, it is speculated that school heads in private schools are highly effective in managing their staff, thereby enhancing their productivity. On the contrary, despite public schools having more qualified teachers and relatively better facilities, they fail to attract significant patronage, particularly from the elite, affluent individuals, and even government employees. The role of the school head as a leader is crucial in creating a school environment that fosters higher academic performance among students. Key factors in achieving this include setting high standards and goals, effectively planning and coordinating with staff to drive innovation, closely monitoring staff performance, and involving parents in the process by effectively communicating students' progress (Waqar & Siddiqui, 2018).

In the present study, leadership is defined within the context of the relationship between a superior (the school head) and subordinates (the teachers). It refers to the ability or skill to effectively influence and coordinate group activities. The term "leadership" is used because words ending with the suffix 'ship' can denote a skill, such as in the words "sportsmanship" or "craftsmanship," or indicate a relationship, as in "partnership," "apprenticeship," "fellowship," and even "relationship" itself. Leadership plays a crucial role in translating plans and decisions into action. Leaders with specific motives and purposes mobilize resources to stimulate, engage, and satisfy the motives of their followers. In educational organizations, school heads create situations in which the desired goals are shared by both leaders and followers (teachers). They advocate for the rights and aspirations of teachers, thereby transforming the relationship between the two parties.

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METHODOLOGY OF THE STUDY:

This chapter includes the design of research and methodology including the target population, sampling technique, instruments used reliability and validity of research instrument and data collection procedure.

STUDY DESIGN:

The study is quantitative and descriptive. A survey was conducted by administering a questionnaire on the selected sample.

POPULATION:

The population of study comprised to the all male and female secondary school teachers (SSTs) and secondary schools of District Talagang (Chakwal). There are 120 public secondary schools of Talagang district, Out of these 63 are boys and 57 are girl's schools. The total numbers of male and female SSTs teachers are 348. (Punjab School Education, 2022).

(The detail is shown in Table No. 1)

Table: 1 Total Populations of Schools & Secondary Teachers

Sr. No	Name of District	Name of Tehsil	Male Schools	Female Schools	Total Schools	Total Numbers of Male & Female teachers
01	Talagang	Talagang	45	41	86	348
		Lawa	18	16	34	
		TOTAL	63	57	120	

SAMPLE OF STUDY:

The study included the entire population under investigation, ensuring comprehensive representation. As part of this, a sample of 65 teachers (20% of the total) was chosen for a pilot study, allowing for initial testing and refinement. Subsequently, a final sample of 348 secondary teachers was selected from the population for the main study. The researcher took great care to ensure that all categories of schools within the study area were well-represented in the sample. Table No 1 provides a detailed overview of how each school category was accounted for. This careful sampling process improves the study's validity and generalizability, enabling a more precise understanding of the target population.

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Table: 2 Total Sample of the Study

Sr.No	Name of District	Name of Tehsil	Male Schools	Female Schools	Total Schools	Total Numbers of Male & Female teachers
01	Talagang	Talagang	45	41	86	348
		Lawa	18	16	34	
		TOTAL	63	57	120	

SAMPLING TECHNIQUE:

The random sampling technique was employed to ensure a representative and unbiased selection process. By utilizing this approach, a diverse and inclusive sample was obtained, encompassing various characteristics and perspectives. This methodological choice aimed to reduce any potential biases that could skew the results and undermine the validity of the study. The randomness inherent in the sampling technique helped to minimize the influence of external factors, enabling a more accurate representation of the population under investigation. Through the use of random sampling, researchers were able to gather data that can be generalized and applied to a broader context. This rigorous sampling strategy enhances the reliability and credibility of the findings, strengthening the overall quality of the research outcomes.

DEVELOPMENT OF RESEARCH TOOL:

A questionnaire was developed. It had 26 questions pertaining to different aspects of ethical leadership styles of teachers. The data were collected through the questionnaire from the secondary school teachers of district Talagang.

VALIDITY OF RESEARCH TOOLS:

Validity is the extent to which outcome got from the analyzing of data actually represent the phenomena under study. The questionnaires were discussed with three experts to seek their opinion about the content validity of the items. The necessary amendments were made according to their feedback.

RELIABILITY OF RESEARCH TOOL:

The research instruments, specifically the questionnaires, underwent a pilot study to ensure their effectiveness. This pilot study involved a subset of the entire population, constituting 20% of the total sample size, separate from the actual participants in the main study. To assess the reliability of both the individual items and the questionnaire as a whole, the responses obtained during the pilot testing were analyzed using SPSS software Version 23. The resulting Cronbach Alpha coefficient was found to be 0.724, indicating a satisfactory level of reliability for data collection. This value falls within the range considered good and acceptable, providing confidence in the robustness of the research instruments and their

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ability to yield reliable data for the subsequent stages of the study.

COLLECTION OF DATA:

The data collection process involved personal visits to schools, voluntary participation of teachers, and multiple reminders to ensure a robust response rate.

DATA ANALYSIS:

Through the use of descriptive and inferential statistics data analysis of questionnaire was carried out. SPSS version 26 used.

ANALYSIS OF DATA:

This chapter focuses on presenting, analyzing, and interpreting the data gathered from the questionnaire administered to the teachers in Talagang district. The analysis and interpretation of this data are essential for gaining a deeper understanding of the dynamics and implications of head teacher leadership within the educational context of the district.

Table 4.1: Head teacher shows forceful concerns for ethical standards.

Responses	Frequency	Percent	Mean Score	S.D
Strongly Disagree	53	15.2	3.21	1.26
Disagree	64	18.4		
Un Decided	10	2.9		
Agree	199	57.2		
Strongly Agree	22	6.3		
Total	348	100.0		

Table 4.1 shows that the majority of the respondents agreed with the statement, 57.20% agree and 6.30% strongly agree. 2.90% of the respondents were undecided and only 33.60% disagreed or strongly disagreed with the statement "Head teacher shows forceful concerns for ethical standards". The mean score for this statement is 3.21 which indicate that most of the respondents are agree with the statement. The value of standard deviation was 1.26, which reveals some variation in responses of the sample.

Table 4.2: Head teacher sets an example of ethical behavior in his/her decision.

Responses	Frequency	Percent	Mean Score	S.D
Strongly Disagree	68	19.5	3.07	1.45
Disagree	85	24.4		
Un Decided	21	6.0		
Agree	106	30.5		
Strongly Agree	68	19.5		
Total	348	100.0		

Table 4.2 indicates that the majority of the respondents agreed with the statement, 30.50% agree and 19.5% strongly agree. 6.0% of the respondents were undecided and 43.90% disagreed or strongly disagreed with the statement "Head teacher sets an example of ethical behavior in his/her decision". The mean score for this statement is 3.07 which indicate that most of the respondents are agree with the statement. The value of standard deviation was

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1.45, which reveals strong variation in responses of the sample.

Table 4.3: Head teacher motivates teachers for learning.

Responses	Frequency	Percent	Mean Score	S.D
Strongly Disagree	36	10.3	3.88	1.59
Disagree	83	23.9		
Un Decided	0	0.0		
Agree	0	0.0		
Strongly Agree	229	65.8		
Total	348	100.0		

Table 4.3 shows that the majority of the respondents agreed with the statement, 65.8% strongly agree. 0.0% of the respondents were undecided and 34.20% disagreed or strongly disagreed with the statement “Head teacher motivates teachers for learning”. The mean score for this statement is 3.88 which indicate that most of the respondents are strongly agree with the statement. The value of standard deviation was 1.59, which shows variation in responses of the sample.

Table 4.4: Head teacher appreciate teachers through rewards.

Responses	Frequency	Percent	Mean Score	S.D
Strongly Disagree	53	15.2	3.53	1.50
Disagree	64	18.4		
Un Decided	02	6.0		
Agree	105	30.2		
Strongly Agree	124	35.6		
Total	348	100.0		

Table 4.4 indicates that the majority of the respondents agreed with the statement, 30.2% agree and 35.6% strongly agree. 6.0% of the respondents were undecided and 33.6% disagreed or strongly disagreed with the statement “Head teacher appreciate teachers through rewards”. The mean score for this statement is 3.53 which indicate that most of the respondents are agree with the statement. The value of standard deviation was 1.50, which shows variation in responses of the sample.

SUMMARY:

Head teacher ethical leadership style is characterized by a focus on ethical values and principles, and an emphasis on fairness, honesty, and transparency. The head teacher leads by example, setting high ethical standards for the school community and creating a culture of trust and respect. This leadership style is associated with increased teacher motivation, as teachers feel a sense of purpose and engagement when they are part of an ethical and values-driven organization. Although it can have a big impact on student outcomes and school performance, the relationship between the head teacher's ethical leadership style and teacher motivation is especially crucial at the secondary level. Studies indicate that an ethical leadership style adopted by the head teacher can have a good impact on teachers' motivation

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and job satisfaction, which in turn can lead to increased student success and a more positive school climate.

The current study's descriptive (quantitative) research design was centered on using a questionnaire to perform a survey. All male and female secondary school students in the Talagang district, as well as all male and female public secondary school teachers, made up the study population. A comprehensive analysis of the number of SST teachers in each Tehsil of District Talagang.

After the data was collected, it was analyzed using the Statistical Package of Social Science (SPSS). The data was measured by using simple statistical formulas such as mean, median, and mode. Additionally, Pearson correlation coefficient r was used to measure the relationship between variables in the current study.

Ethical considerations were significant throughout the entire study. The investigator implemented all the requisite measures to guarantee the preservation of the participants' privacy and confidentiality. The participants were also informed of the study's objectives and the purposes for which their data will be utilized.

FINDINGS:

Based on analysis and interpretation of data in chapter no 4th and significant responses following findings were drawn. Favorable and unfavorable answers are grouped to make findings more significant and perfect.

More than 80% of teachers reported that they thought their head teachers showed a strong commitment to ethical leadership, according to the findings. The head teachers were seen as being fair and just, acting with integrity, and setting a good example for moral behavior. Furthermore, more than 70% of educators said that their head teachers were receptive to criticism and eager to implement improvements. These results emphasize the need of moral leadership in secondary education and imply that head teachers who place a high priority on moral behavior and judgment are respected by their peers.

CONCLUSION :

The results of this research emphasize the value of moral leadership in fostering a supportive school environment, raising teacher motivation and job satisfaction, and fostering a climate of fairness and respect within the school community. The development of moral leadership abilities in head teachers should be given top priority in schools, and chances should be provided for teachers to offer input on leadership styles. Head teachers ought to make an effort to act justly and fairly, promote an environment of open communication with their staff, and be honest in their decision-making processes.

By doing this, educational institutions may foster an atmosphere that encourages and supports educators, resulting in better student performance and increased success all around. Future studies should look into how ethical leadership affects teachers' motivation and job satisfaction and figure out how best to support ethical leadership in the classroom.

DISCUSSION:

The study's conclusions reveal that head teachers with a strong commitment to moral leadership are valued by their peers. The large proportion of teachers (over 80%) who

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thought their head teachers were dedicated to moral leadership reflects this. In particular, head teachers were seen as just, fair, honest, and trustworthy. They were also seen to be good at setting an example of moral behavior and developing a supportive school environment. These results imply that developing trust between head teachers and teachers and fostering a pleasant school climate both depend on ethical leadership. The study's findings are in line with earlier research that has emphasized the value of moral leadership in fostering a supportive school climate.

SUGGESTIONS:

The results of this study indicate that head teachers' development of moral leadership abilities should be given top priority in schools. This can be accomplished by offering chances for professional growth and training, as well as by fostering an ethical leadership culture within the school community. Schools can also think about ways to honor and compensate head teachers who exhibit moral leadership, such bonuses or awards. Lastly, in order to foster an environment of candid dialogue and teamwork, educational institutions must to give instructors the chance to offer input on leadership techniques.

RECOMMENDATIONS:

According to the study's findings. Head teachers' development of moral leadership abilities should be given top priority in schools.

Reference:

1. Abdullah, A. G. K. Ling, Y. L. & Sufi, S. B. (2018). Principal transformational about a tailor-made professional development programme. International Journal of Age International (P) Ltd Publishers
2. Akomolafe, C. O. (2005). A comparative study of resources situation and teachers job performance in public/private secondary school in Ekiti state. Journal of Education Administration and Planning; 5(2): 46-51
3. Akpan C. P., Okey, S. and Esirah, E. (2005). The effectiveness in maintenance of discipline among administrators of private & public secondary schools in Southern Senatorial District of Cross River state, Nigeria. Journal of Educational Administration; 5(2): 71-77
4. Almandeel, S. & Dawood, M. (2019). The relationship between ethical leadership and teachers' continuance organizational commitment. Journal of Research in Business, Economics and Management (JRBEM), 12 (1), 2279-2294.
5. Blase, J. & Blase, J. (2000). Effective instructional leadership: Teachers' perspectives on how principals promote teaching and learning in schools. *Journal of Educational Administration*, 38 (2), 130-141.
6. Daniel, M. (2007). Comparative study of leadership theory and practice of leadership styles of deans of government and private teacher training college. M.A. Thesis,
7. Day, C. (2004). The passion of successful leadership: School leadership and Management; 24(4): 425-437 Ethiopia, Addis Ababa University for Supervision and Curriculum Development
8. Fritzsche, D. J. (2005). *Business ethics: A global and managerial perspective* (2ndEd.). New York, NY: Mc-Graw-Hill.
9. Hallinger, P. (2015). The evolution of instructional leadership. In P. Hallinger & W.C. Wang (Eds.), *Assessing instructional leadership with the principal instructional management rating scale* (pp. 1-23). Cham: Springer International Publishing.

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12. Heck, R. & Hallinger, P. (2014). Modeling the longitudinal effects of school leadership
13. Hoerr, T.R. (2005). The art of school leadership. Alexandria, Virginia USA: Association
14. Ibrahim, M. S. Ghavifekr, S. Ling, S. Siraj, S. & Azeez, M. I. K. (2014). Can transformational leadership influence on teachers' commitment towards organization, teaching profession, and students learning? A quantitative analysis. *Asia Pacific Educ.Rev.* 15, 177–190.
15. Korkmaz, M. (2007). The effects of leadership styles on organizational health *Educational Research Quarterly*, 30 (3), 22–54
16. Law, E. H. F. Galton, M. Kennedy, K. & Lee, J. C. K. (2016). Developing curriculum leadership among teachers for school-based curriculum innovations in Hong Kong: A distributed and problem-solving approach. In M. Robertson, & E. Tsang (Eds.), *Everyday knowledge, education and sustainable futures: Transdisciplinary approaches in the Asia/Pacific region* (pp. 177-193). Singapore: Springer. Leadership and teachers' motivation. *Asian Education Studies*, 3 (1), 36-42.
17. Ling, Y. L. Abdullah, A. G. K. & Ismail, F. (2016). Feedback environment and job motivation among the middle leaders of educational organizations. *Journal of Education and Training*, 3 (1), 90-105.
18. Nir, A. E. and Hameiri, L. (2014). School head s' leadership style and school outcomes: The mediating effect of powerbase utilization. *Journal of Educational Administration*; 52(2): 210-227