

A Causal Model of Digital Leadership and School Climates with Work Engagement as Mediator Affecting Effectiveness of Private Schools in Bangkok, Thailand

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Abstract

The objective of this study was to study 1) develop and validate of digital leadership of school directors and school climates through work engagement affecting effectiveness of private schools in the Bangkok 2) Developing and validating consistency of a causal model of digital leadership and school climates with work engagement as mediators, affecting effectiveness of private school in Bangkok. This is quantitative research. A sample of 440 was randomly drawn from teachers in private schools in Bangkok in 2018 academic year. The instrument was a questionnaire, constructed by the researcher with overall reliability of .98. The data was analyzed using percentage, mean, standard deviation and structural equation modeling analysis. The research results were; 1) digital leadership, school climates, work engagement and effectiveness of school were overall at the high level ($\bar{x} = 4.26$, S.D. = .78). 2) Developing and validating consistency of a causal model of digital leadership, school climates, effectiveness of schools were very well fitted with empirical data ($\chi^2 = 135.21$, df = 84, $\chi^2/df = 1.61$, P-value = 0.00034, GFI = 0.97, AGFI = 0.93, RMR = 0.01 and RMSEA = 0.04). 3) The digital leadership had direct, indirect and total influence on effectiveness of

school at .05 statistical level of significance. The influence coefficients were 0.40, 0.03 and 0.43 respectively and the school climates had direct, indirect and total influence on effectiveness of school at .05 statistical level of significance. The influence coefficients were 0.57 0.14 and 0.71 respectively.

Keywords: Digital Leadership, School Climates, Work Engagement, School Effectiveness

Introduction

School effectiveness is to make school climates inspiring teachers to do their jobs and it makes to be a good membership of organizations, good quality of curriculum, learning activities and leadership of administrators (Hoy, 2003). Many researches explored that management of schools need the good school climates. It is the one of factors for good operation of schools. The essential duty of administrators is to create good school climates. Rattanachuwong (2012) said that perception of school climates and job satisfaction relate to tension and absence of teachers. It has shown that the difference between a group of teachers who have a good responsibility and a group of teachers who lack of responsibility is affected by school climates, job satisfaction and tension in work. The one of factors of school climates is digital leadership. Kopcha (2012) indicated that learning activities must be changed to emphasize on limited content and let students researching on the internet. They can learn what they interest in. the learning activities are applied by innovative material provided by administrators to encourage them improving 21st century skills. It develops school effectiveness in term of creative view and competitive view. Schaufeli and Bakker (2006) found that one more thing can evolve them is work engagement. It is positive mind and behavior of members in organization. The members feel that they are a part of company. Consequently, they dedicate in their jobs. It consists of vigor, dedication and absorption.

Literature Review

School effectiveness is the competency of schools to reach for success and purposes satisfying members of schools. It evolves educational management for socialize learning to improve people for long live and international competition (Quinn and Quinn, 2009). It consists of 4 elements which are competitive view, collaborative view, control view and creative view:

- 1) Competitive view is meant that the ability of members in schools can reach for goals and it develops the schools following visions and philosophy of them.
- 2) Collaborative view is that schools co-operates and make connection with other organizations for developing effectiveness of educational management.
- 3) Control view is schools following up process of operation which knowledge from them can be useful for the schools being agreement of members in organizations.
- 4) Creative view is meant that supporting of schools to create and produce innovation and work to make difference being unique so the schools can adjust to the modern world.

Work Engagement is positive mind and behavior of members in organizations. They realize that work is a part of their life. It can make organizations, successfully (Schaufeli et al., 2002), with 3 elements which that Vigor, Dedication and Absorption:

- 1) Vigor is behavior of teachers in schools endeavor in their jobs although they confront problems in them.
- 2) Dedication is meant that behavior of members in organizations are proud in their occupations and they feel challenged to work in their jobs.
- 3) Absorption is that teachers in schools enjoy to do their jobs and they leave it, hardly.

Digital Leadership is meant that the behavior of administrators performs learning digitalization for improving competency of management including supporting member in organization to use technology (Sheninger, 2014). It has 7 dimensions which are

Communication, Public relations, Branding, Professional growth or development, Student engagement or learning, Re-envisioning learning spaces and environment and Opportunity:

- 1) Communication is that administrators can select the suitable channels communicating to receiver and report stake holders by social media.
- 2) Public relations is meant that administrators make the people thinking of schools in good way by public relations.
- 3) Branding is to make people confidence and pounding in educational standard of schools by media.
- 4) Student engagement or learning means that students are encouraged by administrators to gain digital learning in modern way.
- 5) Professional growth or development is that administrations make connection for the needs of various learning and providing resource including connecting to experts by technology for knowledge sharing to be professional teachers.
- 6) Re-envisioning learning spaces and environment is to renovate learning environment and area to stimulate improving 21 century skills and digital skills
- 7) Opportunity is to improve the way of working in schools by technology.

School Climates are context and environment in schools effecting members of organizations to satisfy them reaching to objectives of school, successfully (Tschannen-Moran et al., 2006). It has 4 dimension which are Collegial leadership, Teacher professionalism, Academic press and Community engagement:

- 1) Collegial leadership is that administrators support academic matter for students and they treat the requirement of teachers and students in schools so it tries to help and encourage them.
- 2) Teacher professionalism is meant that teachers endeavor and have a good responsibility in their jobs including high quality of teaching. They are friendly with colleagues and students.
- 3) Academic press is school climates which emphasis in academic matter and students try to challenge positively in academic way reaching to aims.
- 4) Community engagement is good relationship between schools and communities. The communities and schools support and participate each other.

The concept of this study is digital leadership, school climates, work engagement and school effectiveness. Conceptual framework was build based on previous research that had been reviewed. Kent and Chelladvrai (2001) have shown that the behavior of leader is organizational climates. Many of them found that subordinates love managers so they do their jobs which they do not like because the relationship between administrators and staffs is significant for organizational effectiveness. Moreover, leadership influence for innovational organizations and competency of them. Therefore, this impact affects to work engagement. School effectiveness will be let by them (Goetsch and Davis, 2006). School climates have indirect effect on school effectiveness mediated by work engagement indicated that the good school climates relate to work engagement of teachers, positively. Work engagement in schools makes teachers do good jobs to be good school effectiveness (Steers et al. 1985; Stum, 1999; Robbin, 1990). Work engagement has direct effect on school effectiveness of primary schools found that dedication of teacher in teaching is related by work engagement of teachers. They feel that the schools are a part of their life. Thus, their behavior is dedicated to develop schools being highest effectiveness. Furthermore, school administrators incorporate to establish sustainable relationship between the administrators and the teachers basing on the leader's values and morals to reach the achievement of the school's aims (Tharadet, 2018). From literature review can be summarized in a path model that will guide our analysis (Figure 1)

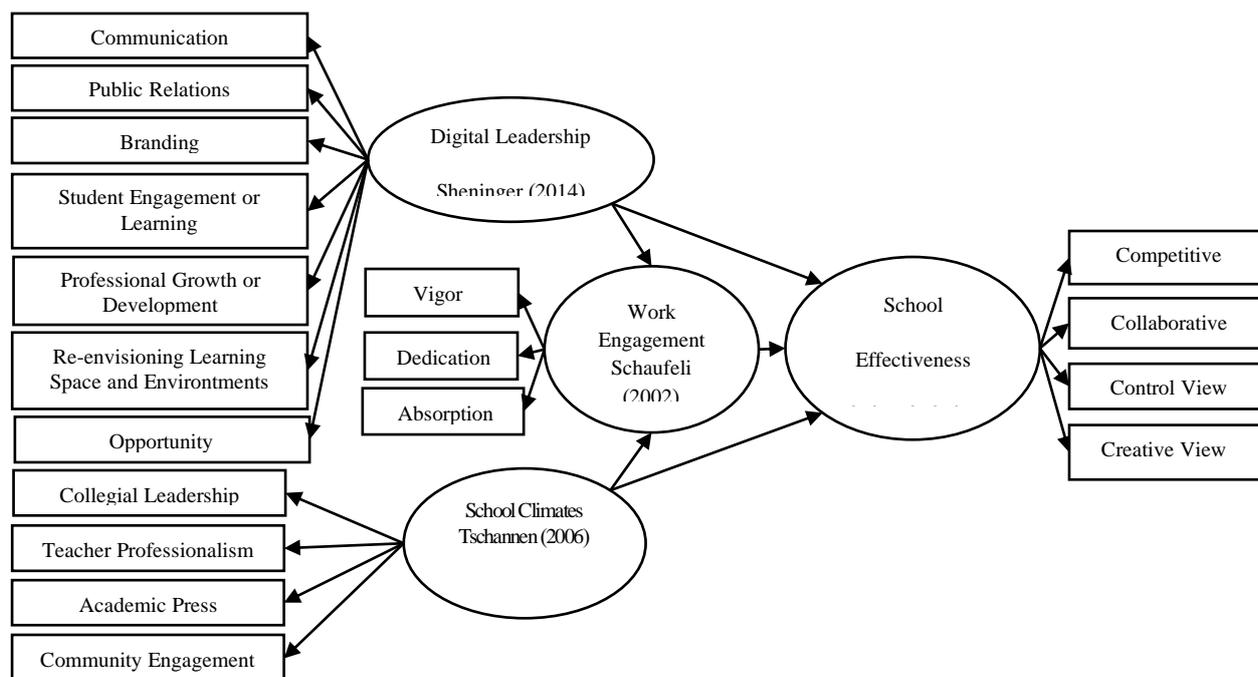


Figure 1 Theoretical framework's Latent and Observables

Research Hypothesis

The hypotheses of this study are that

- 1) Digital leadership, school climates and work engagement have a direct influence on school effectiveness of private schools in Bangkok.
- 2) Digital leadership and school climates have an indirect effect on school effectiveness in private schools in Bangkok, mediated by work engagement.

Research Methodology

Sampling: This study was conducted using a descriptive survey as its methodology. The population was 15,110 teachers who work in private schools in Bangkok in 2018 academic year. The sample consisted of 440 teachers selected by stratified random sampling.

Data Collection: The research instrument was a questionnaire comprised 81 Likert-type items on 5 scales. A response of '1' indicated that the teacher strongly disagreed with the statement on the scale, and the response of '5' indicated that the teacher strongly agree with the statement on the scale. This questionnaire divided into five sections: 4 questions about teacher's demographic characteristics, 30 questions measuring digital leadership, 18 questions measuring school climates, 15 questions measuring work engagement and 18 questions measuring school effectiveness. The reliability of the instrument and the reliability coefficients using Cronbach's Alpha coefficient were found as follows: total reliability: 0.98, digital leadership: 0.97, school climates: 0.91, work engagement: 0.94 and school effectiveness: 0.95. Hypothesis testing was conducted through SEM using the LISREL software package.

Research Results

The level of digital leadership, school climates and work engagement that affect school effectiveness of private schools in was high. This study found that the level of digital leadership, school climates and work engagement that affect school effectiveness of private schools in was high. The average score of all levels was between 3.62 and 4.59 on a 5-point scale. The 'work engagement' received at the highest scores, followed by school

effectiveness, school climates and digital leadership. The dimension of school effectiveness that had the highest mean was competitive view, followed by creative view, control view, and collaborative view. The dimension of work engagement that had the highest mean was dedication, followed by absorption and vigor. The dimension of digital leadership that had the highest mean was student engagement or learning and opportunity, followed by communication, branding, professional growth or development, re-envisioning learning space and environments and public relations. The dimension of school climates that had the highest mean was academic press, followed by teacher professionalism, collegial leadership and community engagement. The causal model of digital leadership and school climates with work engagement as mediator affecting effectiveness of private schools in Bangkok. The SEM of causal model of digital leadership and school climates with work engagement as mediator affecting effectiveness of private schools in Bangkok produced results that fit the empirical data with the fit indices being: $\chi^2 = 135.21$, $df = 84$, $\chi^2/df = 1.61$, $P\text{-value} = 0.00034$, $GFI = 0.97$, $AGFI = 0.93$, $RMR = 0.01$ and $RMSEA = 0.04$. This study analyzed the relationship between digital leadership, school climates, work engagement and school effectiveness through SEM. It found that all the study's research hypotheses were supported. Work engagement has a direct influence on school effectiveness which is significant at the 0.05 level. Digital leadership and school climates have an indirect effect on school effectiveness mediated by work engagement. The causal relationship model between the variables is shown below in Figure 2.

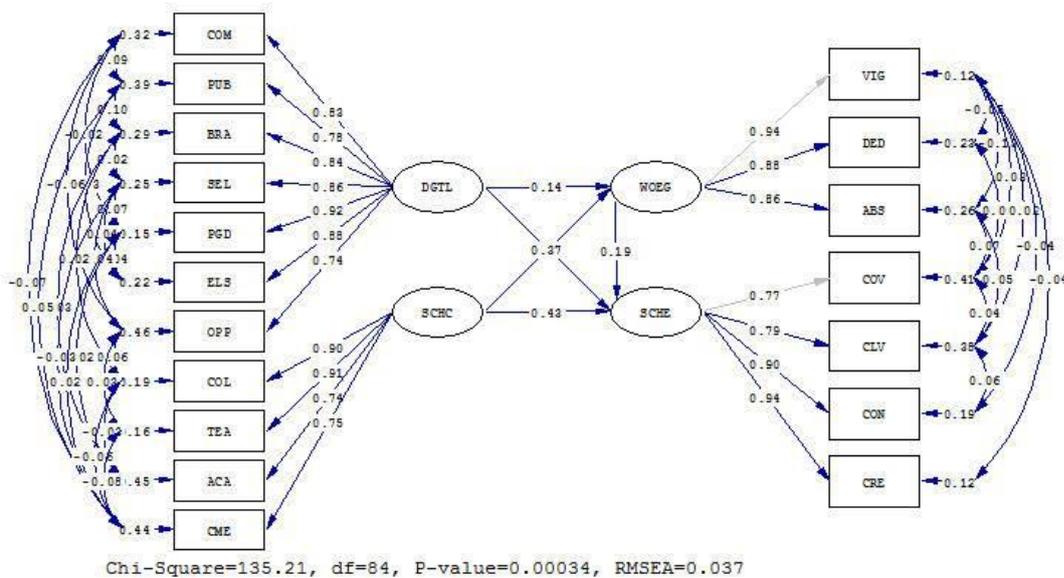


Figure 2 Structural Equation Model

Discussion and Conclusion

This research found that digital leadership and school climates have a direct effect on work engagement positively and significantly. Thiratanachaiyakul (2015) also said that administrators should create teacher professionalism to make good relationship between teachers and teachers' colleagues. Additionally, an effective team is the members cooperating and taking responsibility to finish work, completely. Excellent teamwork is each member to create ideas and willing to complete their work for achieve the organization's objectives. Because of the various each member's knowledge, competencies, and behavior to work as a team can share and apply to produce work and solving problems (Kasetauim, 2015). Moreover, effective teamwork can evolve the school effectiveness refered in the research by Charuaendech (2015). It impacts the effectiveness of the organizations. Cantu (2007)

recommended that there are six dimensions to evaluate the school effectiveness consisting of teamwork, decision-making, leadership support, trust and respect, recognition and rewards, and customer focus. Consequently, administrators require to understand the elements and factors to promote effective teamwork because the success of majority tasks and missions depending on teamwork. Team members need to brainstorm ideas to be create and fulfil the organization's plans. If the teamwork in the organization is good, the overall school effectiveness can be increased. The administrators try to give benefit for teachers to increase the quality of teaching, it cannot do in school context and it is not business because they realized in their jobs that they do for students not for profits (Adair, 2003). Ash and Persall (2000) suggested that school climates involve the teaching of teachers supported enough materials and the good relationship with colleagues and administrators also evolves teaching skill so the teachers realize and proud of their duties as well. Work engagement also directly affected school effectiveness, significantly. Steers (1976) indicated that work engagement related to primary school effectiveness. Therefore, teachers have a good relationship with the schools and they dedicate for teaching and it is part of their life so work are dedicated for developing school to reach the target together. Chanakhar (2014) explored that this is because administrators who improve responsible leadership is able to make good relationships inside and outside school carrying out their management role honestly, is able to administrate the school system and it involves in school organization to success and recognize the school's targets. In addition, if members of organizations understand their responsibilities linking to organizational aims. That organization has work engagement (Tower, 2003). According to International Survey Research (2004) pointed that staffs' view perceives their products and services which are excellent so work engagement has in that company.

This research indicated that Digital leadership and school climates have a directly influence on school effectiveness, significantly. School climates are important indicators of school effectiveness. It should be friendly conducive to learning and promoting communication and interaction. Encouragement of feeling is part of self-esteem. Promoting academic learning is a reflection of the school climates to change and to get the necessary conditions for teaching (Tableman, 2004). The leaders support for school climates to motivate the school effectiveness (Jansen in de wal, 2014).

This study showed that Digital leadership and school climates have a direct effect on school effectiveness in private schools in Bangkok, mediated by work engagement, significantly. It has shown that school effectiveness is supported by digital leadership and school climates which are two factors of it, mediated by work engagement. Ngenpat (2016) said that leadership has indirect and direct effects on school effectiveness through school climates. It has shown that leadership of administrators is important for school effectiveness so schools should encourage to improve their administrators by participating seminar to be supervisors to give advices for teachers. Moreover, school climates affect directly on school effectiveness. It means that school climates are important for school effectiveness. Consequently, schools should encourage team works and sharing ideas to develop schools for unity. It positively impacts to school effectiveness. Molinaro and Weiss (2005) found that organizational climates and good team works that include supporting of learning in organization and improving themselves make nurses proud to be a part of hospital. Therefore, the nurses have a high work engagement.

Recommendations

1) Established work engagement in school: This study found that work engagement has a direct influence on school effectiveness which is significant at the 0.05 level. Work engagement is a composite of vigor, dedication and absorption and interrelates with others.

School administrators should work engagement in school focusing on developing teachers to realize their duties and responsibilities and the encouraging cooperation between teachers and administrators should be improved. Moreover, they should emphasis on academic climates such as innovation, academic competition, supporting high technology material.

2) Enhance work engagement through school climates: This study indicated that school climates influenced work engagement. School leaders should consider how to build school climates in order to evolve work engagement and school effectiveness. School administrators should make good school climates to work full potential by school climates to work fast, solving the problems by sharing with teachers and response teachers need, permitting teachers to participate in making decision.

Further Research

One of the purposes of this study is to find a causal model which affect school effectiveness. From this study, three variables could not explain all about school effectiveness. It shows that other variables might explain more about school effectiveness and it might lead to differently analyzed results. Different factors should be established to facilitate future research such as basic psychological needs, socioeconomic status, school environments, leadership style.

References

- Adair, J. 2003. **The inspirational leader**. London: Kogan-Page Effective Strategic Leadership.
- Ash R. & Persall, M. 2000. "The principal as chief learning officer: developing teacher leaders." **NASSP Bulletin** 84 (616): 15-22.
- Cantu, C. 2007. **Evaluating Team Effectiveness: Examination of the Team Assessment Tool**. Doctor of Philosophy Dissertation, University of North Texas.
- Charuaendech, W. 2016. "A Linear Structural Relationship Model of Quality Teams Affecting Primary School Effectiveness in the Northeast under the Office of the Basic Education Commission." **Journal of Education Khon Kaen University** 38 (4): 159-167.
- Chanakha, N. 2014. **A Model for Administration of Intellectual Capital, Organizational Culture, Administrators' Leadership and Organizational Effectiveness of Administrators in the Secondary Schools under the Office of Basic Education Commission in the Northeast**. Doctor of Philosophy Thesis, Buriram Rajabhat University.
- Goetsch, D. & Stanley, B. 2006. **Quality Management: Introduction to Total Quality Management for Production, Processing and Services**. 3rd ed. New Jersey: Prentice-Hall.
- Hoy, W. 2003. **Educational administration**. 6th ed. Singapore: McGraw-Hill.
- International Survey Research. 2004. **Engaged Employee Drive the Bottom Line** Retrieved from [www.isarinsigh.com/pdf/solutions/engagement BrochureFinalUS.pdf](http://www.isarinsigh.com/pdf/solutions/engagement%20BrochureFinalUS.pdf).
- Jansen in de Wal, J. 2014. "Teachers' engagement in professional learning: Exploring motivational Profiles." **Learning and Individual Differences** 36: 27-36.
- Kasetauim, V. 2015. **Team building**. Bangkok: Odeon Store.
- Kent, A. & Chelladvrai, P. 2001. "Perceived Transformational Leadership, Organizational Commitment, and Citizenship Behavior: A Case Study in Intercollegiate Athletics." **Journal of Support Management** 15: 135-159.
- Kopcha, T. 2012. "Teachers' perceptions of the barriers to technology integration and practices with technology under attitude professional development." **Computer & Education** 59 (4): 1109-1121.

- Molinaro, V. & Weiss, D. 2005. **Driving Employee Engagement** Retrieved from www.banffleadership.com.
- Ngenpat, A. 2016. **A Causal Relationship Model of Instructional Leadership of Administrators and School Climate Affecting Effectiveness of World-Class Standard School in Thailand**. Doctoral Dissertation in Education, Kasetsart University, Bangkok.
- Quinn, R. & Quinn, R. 2009. **Lift: Becoming a Positive Force in Any Situation**. California: Berrett-Koehler.
- Rattanachuwong, P. 2012. **Causal factors on sense of academic optimism affecting professional commitment and teaching effectiveness of teachers in secondary school of upper northern provinces**. Doctoral Dissertation in Education, Kasetsart University, Bangkok.
- Robbins, S. 1990. **Organization theory structure, design, and applications**. 3rd ed. New Jersey: Prentice-Hall.
- Schaufeli, W., Salanova, M., Gonzalez-Roma, V., & Bakker, A. 2002. "The Measurement of engagement and burnout: A two sample confirmatory Factor analytic approach." **Journal of Happiness studies** 3 (1): 71-92.
- Schaufel, W. & Bakker, A. 2006. "The measurement of work engagement with a short questionnaire." **Educational and Psychological Measurement** 66 (4): 701-716.
- Sheninger, E. 2014. **Digital Leadership: Changing paradigms for changing times**. California: Corwin.
- Steers, M. 1976. **Antecedents and Outcomes of Organizational Commitment**. Oregon: University of Oregon.
- Steers, M. et al. 1985. **Organization Effectiveness: A Behavioral View**. Cliff: Good Year Publishing.
- Stum, D. 1999. "Maslow Revisited: Building the Employee Commitment Pyramid." **Strategy and Leadership** 29 (4): 49.
- Tableman, B. 2004. "School climate and learning." **Best Practice Beliefs** 31: 1-10
- Tharadet, M. et al. 2018. "How Responsible Leadership by School Administrators and Effective Teamwork, Influences the Effectiveness of Schools under the Office of the Basic Education Commission, Thailand with Intellectual Capital as a Mediator." **PSAKU International Journal of Interdisciplinary Research** 7 (1): 359-367.
- Thiratanachaiyakul, K. 2015. **Organization Development**. Bangkok: SE-ED
- Tower, P. 2003. **Working Today: Understanding What Drives Employee Engagement** Retrieved from www.towerperrin.com.
- Tschannen-Moran, M. and Hoy, W. 2006. "School Climate: The Interplay Between Interpersonal Relationships and Student Achievement." **Journal of School Leadership** 16 (7): 11-14.