



Effect of Distributed and Instructional Leadership of Chinese School Principals on the Job Satisfaction of Teachers: A Conceptual Paper

Zhao Xin¹ & Suhaidah Binti Tahir²

^{1,2}Faculty of Education & Liberal Sciences, City University Malaysia, Malaysia.

Corresponding Author: Zhao Xin, Email: zhaoluyue54321@163.com

Received: 13th May 2024

Accepted: 17th July 2024

Published: 5th August 2024

ABSTRACT

School principals' leadership behaviours influence the job satisfaction of the teacher, which in turn, defines the effectiveness of the school climate. Therefore, it is crucial to know how the leaderships styles, specially the distributed and instructional leadership, affect the job satisfaction of the teachers in the Chinese school context. So, the aim of the study is to analyse the effect of distributed and instructional leadership of Chinese school principals on the job satisfaction of teachers along with the mediating roles of reward, motivation, and effectiveness. In order to achieve the aim, the study adopted a "review-style" research method and explored the relevant past literature. The researcher confined the time frame from 2019 to 2024 to include the most recent studies and the theses, books, and discussions were not utilized as they did not fit into the standard of research articles. In the context of educational policy and school management practices worldwide, the implications of this study are significant. Therefore, suitable leadership interventions would improve teachers' work satisfaction and consequently, the students' achievements.

Keywords: *Distributed Leadership; Instructional Leadership; Principal; Teachers; Job Satisfaction.*

INTRODUCTION

The role played by a principal in the school has been anticipated as a “building manager, politician, instructional leader, and change agent” from the last decade. As the factor of being accountable has been emphasized at the global level, the instructional style of leadership of principals was also visualized as one of the crucial strategies by which the school organization can be improved as a whole (ATIK & CELIK, 2020). It is expected that it is the responsibility of principals to ensure the quality of teaching and learning of students by maintaining the curriculum being taught in the schools and motivate the staff so that their capabilities can get enhanced with the passage of time (Kõiv et al., 2019). The working responsibilities of teachers are mainly influenced because of the association that exists between the instructional leadership and self-efficacy beliefs of teachers (Maheshwari, 2021). When instructional style of leadership is practiced by the principals in a school then such conditions are created for the teachers which assist them in doing their work in an effective manner, hence, a significant contribution can be made by the principals in motivating the teachers by which self-esteem also gets developed in them (Qadach et al., 2020). The effective relationship between the teachers and leaders is important for enhancing the effectiveness of the school system and is necessary for developing trust among the teachers and leaders (Torres, 2019). In order to develop trust among the teachers and leaders, it is important for the principal to be “benevolent, open, honest, competent, and reliable and these traits are considered to be critical for exercising leadership within the ecosystem of a school and thus leaving an influencing impact on teachers (Liu et al., 2021).

Similarly, the distributed leadership allows the individual teachers by influencing and persuading them for devoting their maximum efforts in accomplishing the particular tasks by which their goals can be achieved in the long run. Individual teachers get inspired by the distributed leadership by which their expected behaviours can be exceeded (Nasra & Arar, 2019). The principals of the educational institutes are found to play an important role in ensuring the job satisfaction of their teachers as they are considered to be the part of management and are responsible enough (ATIK & CELIK, 2020). Teachers have been taken as a unit of analysis in many educational research persistently due to their impact on the learning of the students. Two of the factors that were found to be highly related to the teachers which include: self-efficacy as well as job satisfaction gained the attention of many researchers as well as scholars, like Skaalvik (2020)

and Torres (2019). Job satisfaction among teachers is found to be at a moderate level worldwide, raising the concerns of many academics and professionals to focus on this issue. Moreover, the principal is considered to be a leader as he is responsible for developing important strategies and policies to ensure the effective performance of the sector. It has been observed that the education institutes promoting effective leadership strategies such as distributed and instruction leadership, have more satisfied teachers as compared to the education centres which do not promote effective leadership strategies. These strategies help in improving the motivation of the teachers by providing them with an equal chance to present their thoughts and ideas (Wasito et al, 2021).

Even though vast educational research has taken place in the last few decades, but still there is a dearth of studies that focus on the leadership styles of principals to ensure the job satisfaction in context of Chinese school teachers. Therefore, this study makes an attempt for addressing a gap in literature by introducing and examining the framework according to which the roles of different leadership styles, particularly the instructional and distributed leadership styles of principals, would be studied by discussing their impacts on the job satisfaction level of teachers either in a direct or an indirect manner by the mediating role played by reward, motivation, as well as effectiveness of teachers' performance. This study will play an important role in improving the job satisfaction of teachers in the Chinese schools. This will also impact the overall performance of the education system in China as the teacher is considered to be the core unit of this concept. Moreover, this study makes a significant addition to the literature for the future studies in context of Asian countries under the same concept as only a few such studies are present in the context of Asian countries, therefore limiting the sources of data for such studies. This research study adds to the overall performance of the education system in China as it focuses on the important factors which were not focused in the previously conducted studies. Therefore, this study would be quite effective both theoretically as well as practically as it encourages the education system in China to take important steps to improve the job satisfaction of teachers focusing on the role of principal's leadership styles in this regard. The subsequent sections of the paper will depict a summarized detail on the adopted methodology, a comprehensive previous literature, a proposed conceptual framework, as well as a brief conclusion.

METHODOLOGY

The study adopted a “review-style” research method and explored the past literature regarding the distributed and instructional leadership styles of principals and their effect on the job satisfaction of teachers. Therefore, specific queries were designed to gather relevant information from different “search engines” through relevant keywords. The main search engines used were “Scopus”, “Web of Sciences”, as well as “Google Scholar” and the main databases were “ScienceDirect”, “Emerald”, “Wiley Online Library”, and “ResearchGate”, etc. The main keywords and search queries were “Distributed Leadership”, “Instructional Leadership”, “Principal”, “Teachers”, “Job Satisfaction”, “Reward”, “Motivation”, as well as “Effectiveness”. Similarly, “Boolean Operators” like “AND”, “OR”, and “wildcards (“”)” were used as effective tools to combine the key terms to extract the relevant literature. Moreover, the researcher confined the time frame from 2019 to 2024 to include the recent studies and the theses, books, and discussions were not at all utilized as they did not fit into the standard of research articles.

Behavioural Theory of Leadership – An Explanation of the Behaviours and Actions of Leaders

The “Behavioural Theory of Leadership” entails how leaders behave and predicts that other leaders can copy these attributes. Such leaders set a standard benchmark and criteria to be copied by others as an inspiration for others (Wellman et al., 2022). This study utilizes the behavioural theory of leadership as it is the most suitable for comprising and covering related aspects. Learning is described by many researchers as an acquisition of ability or knowledge through experienced study. Different people use different techniques to learn something. So, behaviourism can also be utilized as a technique to learn (Younas et al., 2022). As a leader, one has to interact with followers and subordinates, seniors, peers, and others; whose assistance an employee need to fulfil objectives and other relative goals. The behavioural theory supports the idea that the success of leaders depends on their behaviours rather than their natural attributes of leaders (Wellman et al., 2022). Behavioural leadership theory includes evaluating and observing the action of the leader and behaviours of leaders when they are reacting to a certain situation. Behaviour theory tends to explain behaviours of humans by assessing the consequences and experiences, antecedents present in an environment of an individual, and the learned associations that he has gained from some past experiences. A leader is made with his words and not mere words but also through the actions (Du

& Yan, 2022). The greater a leader dares to meet his work requirements and fulfil promises, the greater would be the desired outcomes (Roy, 2021). Such situations also increase followers' confidence in their leaders who fulfil and stand by their words (Islam et al., 2021).

Leaders are different from ordinary non-leader people due to the conduct of some particular behaviours (Stewart et al., 2019). A behavioural theory of leadership highlights that the strong conduct of leadership is the consequence of effective behaviours roles (Tran & Choi, 2019). Leadership is more obvious in behaviours or implementation rather than the mere presence of traits (Stewart et al., 2019). This study focuses on a teacher's job satisfaction with his job through distributional and instructional leadership styles, and it has a deep link with the behavioural theory of leadership as a leader set practical examples and find suitable ways to implement them through expected positive behaviours (Jackson & Stevens, 2022). An institution is said to be run better when people work better together. Both the styles in this study i.e., principal's distributed leadership style and the principal's instructional leadership styles involve behaviours as a core element to ensure job satisfaction. Because mere words can do nothing as long as practical actions to support those words are seen at an institution (Zhang et al., 2022). A survey elaborates detail about behaviours, which said that behaving in a certain way can influence subordinates to believe the words of a leader as actions are parameters to measure a leader's ability to perform (Jackson & Stevens, 2022).

There are three famous studies on the behavioural theory in the literature. The studies by Blake and Mouton, Ohio state studies, and Michigan studies are the most famous of all (Baroudi et al., 2022), as also illustrated by the diagram below. These studies supported the fact that a leader's behaviour is a measure to ensure employee job satisfaction (Baroudi et al., 2022). The other two important styles include orientation towards task and orientation towards people. Task-oriented behaviours let people focus on the task as their primarily priority whereas achieving it towards certain behaviours adopted is the secondary objective. Leaders in this case guide their subordinates to work together united as a one form. Orientation towards people is another style of these types of leaders as people-oriented behaviours are more appreciated and encouraged to gain their loyalty and satisfaction attached to the workplace. The behavioural model covers all the aspects that can influence behaviours in any way or the other (Meredith et al., 2022). Figure 1

shows the behaviour leadership theory model as well as the names of famous studies present in the literature regarding behavioural leadership:

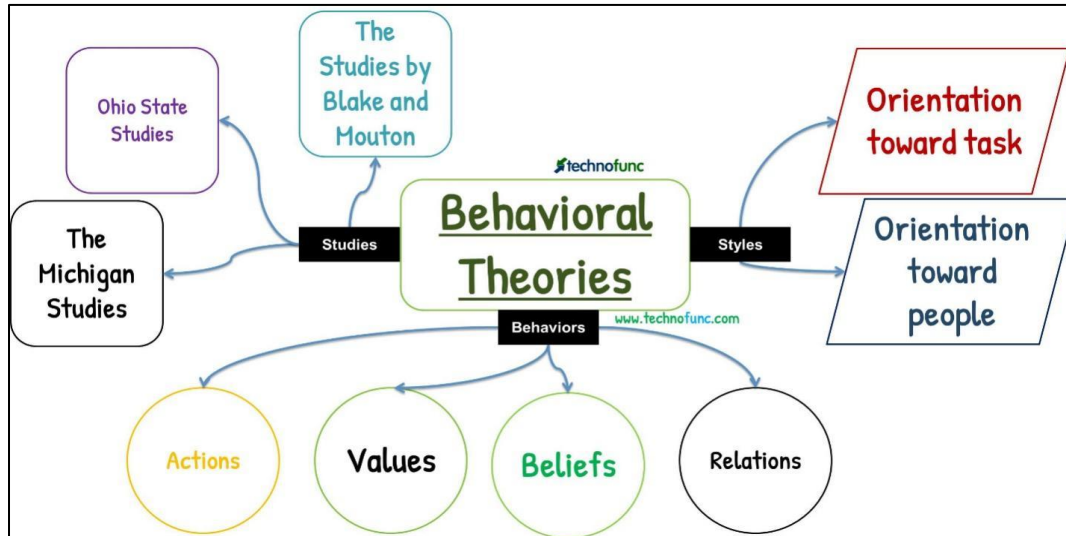


Figure 1: Behavioural Theory Model

(Source: Baroudi et al., 2022)

Behaviours associated with this theory have four types of behaviours i.e., values, beliefs, actions, and relations. A leader through his behaviour provokes people to work hard and inspires them to achieve set goals. In the process of achieving goals, a leader goes through various behaviour types, which are actions, relations, beliefs, and values (Fatimah & Syahrani, 2022). Such leaders aim to enhance job satisfaction through rewards and motivation or the perceived effectiveness of leaders (Benner, 2022). Therefore, the behavioural theory helps in determining the association between the different leadership styles of principals and the job satisfaction of the teachers in the context of the present study.

OVERVIEW OF KEY FACTORS

Leadership Styles in the Educational Organization

In educational organizations, distributed leadership style plays a major role as the preferred leadership model in the 21st century. Distributed leadership style refers to a leadership style that extends leadership beyond an individual and transfers the organization of the school (Lu & Smith, 2021). In the leadership process, the notion of distributed leadership is the mechanism of

facilitating the active involvement of all members (Bush & Ng, 2019). Other authors, Berjaoui and Karami-Akkary (2020) hold the concentration of distributed leadership style as within the organization, engaging expertise wherever it exists than seeking only formal position roles. Moreover, the most frequently studied model of school leadership is the instructional leadership style over the past decades (Hallinger & Kovačević, 2019). The school leaders demonstrate deep development in having a hand in a wide array of activities and instruction issues that aim for better learning and school teaching, whereby educational leadership approach considered as instructional leadership style. By considering other managerial areas less important, the new approach expects principals of the school to focus their effort on achievement performance and improving students (Bellibaş, Gümüş, et al., 2021).

Contingency Reward

Contingency reward is the motivation-based system. By providing positive reinforcement for a well-done job through the rewarding system for those who meet with goals of the organization. for rewarding the followers through a contingent reward system depending on outcomes and task fulfilment (Jiang, Bohle, & Roche, 2019). Appreciation, recognition, promotion, and bonuses are included in the contingency reward system. On structure and rules around reward, contingency reward builds for specific behaviour, results, and outcomes. When true motivation, employee engagement, and inspiration are difficult to build in the organization, a contingency rewarding system works well in this environment. Numerous employees around the world do jobs just for making money, not for a purpose, passion, and meeting the goals of the organization. in this situation, leaders can induce a contingency reward system in their organization to enhance and boost the performance and productivity of employees. It is very necessary and a key point to clearly understand contingency rewards by employees as much as possible (Z. Yang, Jaramillo, Liu, Ye, & Huang, 2020). When employees get it clearly by exactly knowing, they can meet a certain condition. A clear understanding of contingency rewards motivates them to work at great speed in meeting the goals of the organization. As an incentive, unclarity is not good for employees and organizations because they will not be sure to expect what, in terms of reward. They were even unsure about the responsibilities which are expected of them (Stevenson, 2021).

Inspirational Motivation

Inspirational motivation plays important role in embracing and reducing organizational processes and business performance and it can change the business environment (Ameen, Alshamsi, Isaac, Gazem, & Mohammed, 2021). Inspirational motivation enables individuals to be concerned for their future. Dimension of control is also increased by inspirational motivation. Communicating an attractive vision and inspirational motivation promotes curiosity by allowing individuals to think about various roles and situations in the future (Ghosh et al., 2019). Inspirational motivation determines confidence, curiosity, control, and overall career adaptability. When a leader takes time to focus completely on the value of staff and other included person and then communicate and execute excellence, is inspirational motivation. Through inspirational motivation, leaders simply motivate employees, and parents/teachers motivate children (Chughtai et al., 2023). Inspirational motivation taps into inner values and motivation by inspiring and helping in unlocking the potential capabilities of individuals. The primary objective of inspirational motivation is to encourage, inspire, and stimulate individuals by engaging them to work in a manner that increases their courage, capabilities, and enthusiasm. This is not only beneficial for the organization but also beneficial for the mental health of individuals. The individual will become more passionate about their work. when individuals reflect on their responsibilities and values in a way, they show more impact of inspirational motivation (Finney, 2022).

Perceived Leader Effectiveness

A leader's perceived effectiveness is how his subordinates take his leadership or to which extent they are influenced by such sort of Leaders. Organizations seemed to be more effective if people who are acting as subordinates are at a greater level of satisfaction (Touati et al., 2022). According to most commonly used instrument to measure a leader's effectiveness is the assessment of group performance and the level to which objectives, mission, vision, and goals of an organization are met. This is an extent to measure a leader's effectiveness (Chiue et al., 2022). It is a solid indicator that leaders are capable of influencing their subordinates and leading them towards the achievement (Decuyper & Pircher Verdorfer, 2022). Effective leaders are crucial for any business because they are responsible for creating confidence among various employees in an organization and a professional and positive environment is encouraged (Rickleby & Stackhouse,

2022). In an enterprise setting, leaders are acting as the catalysts that can work on all business aspects in harmony across an organization (Kerns, 2022). Effective leaders bring harmony to an organization. Unevenness and issues regarding nepotism do not emerge in an organization where there is effective leadership, thus an atmosphere of democracy is built in such an environment (Sheikh, 2022). Generally, the following personality traits are present among effective leaders; self-confidence is the most important of them as a leader having greater self-confidence could effectively influence his subordinates and bring prosperity to his organization (Ellen III, Ferris, & Buckley, 2021).

Moreover, responsibility is the second most prominent trait among effective leaders, those having a higher responsibility factor can smoothly achieve organizational goals and can take them to soar heights (Ellen III et al., 2021). Energy is another crucial trait in leaders as energy is needed prominently in every step a leader takes (Shaturaev & Bekimbetova, 2021). Dull and lazy leaders cannot survive in a longer span. Innovation and creativity are yet considered the most important of all because innovative minds can touch the peak heights of success (Javidan, Waldman, & Wang, 2021). Repetition of the same conventional ways and policies in an organization is a source of its slow destruction. Effective leaders always pay heed to innovation (Dimotakis et al., 2022). The ability to solve interpersonal tensions is also an integral quality of a person who claims himself to be a leader because conflicts are natural and part of a workplace, there we can only hope for a leader to be great in solving interpersonal tensions (Kong, Park, & Peng, 2022). Accepting the consequences of one's decision is only an attribute of a great leader, taking a decision is easy but remaining stuck to its implementation is difficult, (STAIC, ULIU, & VLADU, 2022) an effective leader's perception says that accepting the results or consequences of a decision is the most important attribute that a leader has. Effective leaders have crucial three elements present in them, these are intelligence, experience, and skills needed for making rapid great decisions when such circumstances arise (Radi Afsouran, C Thornton III, & Charkhabi, 2022).

Job Satisfaction

Job satisfaction is the employees' perception of the working circumstances, relations with peers, promotion, and earning opportunities. Work life balance, salary, different working opportunities, on-job training, and off-job training are key factors that confirm job satisfaction in employees (Z. LIU, 2022). Factors contributing to job satisfaction include treating the employees

with dignity, provision of routine-wise employee recognition, sanctioning employees, offering benefits that are above industry average, reimbursement, provision of employee perquisites, and company activities, and positive control within an efficacious framework of goals. Motivation and satisfaction are considered intrinsic factors related to the job. Such factors involve; self-sufficiency, job growth, opportunities for training, responsibility, and responsiveness (Lee & Lee, 2022). Hygiene elements that lead to displeasure in their absence involve; pay packages, incentives, and policies of the company along with many others. Leadership is considered to have a significant impact on organizational obligation and satisfaction of job (Nurimansjah, Ramly, Mallongi, & Alam, 2022) positively where it was assessed that this effect is lower than expected in public subdivisions. Three factors ensure a greater level of job satisfaction which are values and culture, senior leadership, and career opportunities. The five major factors which encourage job satisfaction include respect, engagement, great compensation, life satisfaction, and motivation (Purwanto, Novitasari, & Asbari, 2022). These measures collectively create job satisfaction in the workplace. Good compensation at the workplace is the highest-rated factor to create, ensure and maintain job satisfaction. Job satisfaction explains how much extent to which an individual is pleased, (Schlaegel, Engle, & Lang, 2022) comfortable and happy with his job. A satisfied employee is always important for an organization as he aimed high to deliver his best performance. Every employee wants strong growth in his career and work-life balance at the workstation. If an employee is happy with their work and company, they tend to give back to the company with all of their efforts (Ohunakin & Olugbade, 2022).

Job satisfaction can be measured from two perspectives; job satisfaction from an employee's perspective is to get a good salary, have the stability of a job, have a fast growth of career, get recognition and reward, and continuously having novel opportunities. From the employer's perspective, all the aspects are directly or indirectly linked to the employee, a satisfied employee contributes more to the company's growth, and helps to control attrition (Caza, Main, & Stuart-Edwards, 2022). Job satisfaction is linked to the psychology of an employee. A happy and content employee at a job is always provoked to contribute more. On the other hand, a dissatisfied employee is sluggish, makes mistakes, and becomes a burden to the organization (Abed, 2022). Job satisfaction is the level of contentment employees feel with their job. Job satisfaction plays a significant role in assessing the performance of an organization. An organization whose employees are more satisfied would be able to perform better and great,

whereas an organization that lacks employee satisfaction would not achieve better performance (Abed, 2022). Leaders create job satisfaction either through rewards or through inspirational motivation, in such a way that a leader presents a practical example in front of his followers or relative subordinates to achieve a great level of performance and satisfaction that is merely linked to the employee's capabilities which later on is responsible for job satisfaction among workers (Bizzi, 2022).

PRINCIPAL'S DISTRIBUTED LEADERSHIP STYLE AS A PREDICTOR OF JOB SATISFACTION

In a distributed leadership style, leaders within a school need to be given the independence to make main decisions in their respective areas of responsibility. This independence is fundamental to achieving the above-mentioned objective of empowering leaders and giving them independent ownership of their work (Hickey, Flaherty, & Mannix McNamara, 2022). Leaders who work and take decisions independently tend to achieve success fast than those who face pressure and some opinions and are bound to follow those regulations to achieve any goal and to take any decision (Rabuzin, 2022). Distributed leaders in schools thus exert their decision-making power on students and teachers in a way that keeps their opinions and benefits at the primarily importance which in return creates job satisfaction among teachers (Ishak et al., 2022).

Failure inspired learning and intentional taking of risks are also very important attributes studied in this distributed leadership style. These attributes tend to create employee job pleasure overall as it satisfies the worker. Leaders tend to be an inspiration for subordinates as they inspire the subordinates or followers in every way if prevailing a democratic way of leading them (Al-Mahdy & Alazmi, 2021). Sorin et al. (2020) reveal that the behaviours of leadership exhibited by the principal affect the job satisfaction level of teachers. A school principal's leadership approaches affect the job satisfaction of teachers within their relevant working institutions (Muliati, Sudirman, & Fahrudin, 2020). Dinh, Caliskan, and Zhu (2021) stated that distributive leadership increases a teacher's commitment to their respective school and their relevant job, thus supporting the idea that distributing leadership style increases teachers' job satisfaction and their loyalty to their respective schools.

PRINCIPAL'S INSTRUCTIONAL LEADERSHIP STYLES AS A PREDICTOR OF JOB SATISFACTION

The role of the principal in instructional leadership has been thought of traditionally as communicating high expectations from subordinate teachers (Bellibaş, Gümüş, et al., 2021). These high expectations can sometimes be a cause of the pressure or sometimes a constructive staircase to climb the ladder of success thus increasing job satisfaction. Keeping expectations high from teachers can boost or indulge their eagerness to perform better than before (Skaalvik, 2020). Supervising the given instructions, observing, and assessing assessments, and the progress of the school are included in the instructional leadership style to create and develop satisfaction among teachers at that school (Tambrin et al., 2021). Strong leadership which is instructional by nature creates a supportive work environment that is produced in a way that teachers learn on their job daily (Zahed-Babelan et al., 2019). Creating an orderly and safe working environment for the students involves creating such policies and systems so that students feel safe, provision of a caring environment, and making sure of high expectations of social behaviors (Hallinger, Gümüş, & Bellibaş, 2020). This positivity overall increases the job satisfaction of teachers also as they get a positive vibe from their environment throughout (Zahed-Babelan et al., 2019).

Teacher's job satisfaction is the main pre-conditions for effective and developed schools, affecting the performance of teachers which as a consequence may influence non-cognitive and cognitive outcomes (Maheshwari, 2021). Economic gains and margin maximization are not the sole purpose of such leaders as their attention is on subordinates or the productive development of teachers. Instructional leadership literature supports the idea that role of a principal is deeply involved with setting the direction of the school (Buckman, Choi, Daly, & Seitelman, 2021). The dimension of "mission" focuses on the role of the principal in staff cooperation, ensuring that the school is thought to run on measurable, clear, and time-based objectives that result in the progress of students in the academic sector. With such clarity in achieving set goals and objectives, a leader tends to be more effective in developing job satisfaction among teachers (Licki & Van Der Walt, 2021).

CONTINGENCY REWARD AS A PREDICTOR

Job satisfaction is the extent to which employees (teacher and principal) are satisfied with their job and feel self-motivated toward their job. Thinking of being a stable job and career with

good work balance life comes with job satisfaction (Zafar, 2021). Contingency rewards increase the motivation of principals for their work and this thing directly influences their satisfaction level related to their job. Contingency reward assists employees of educational organizations in resulting considerations like commitment, responsiveness, job satisfaction, and performance. For the achievement of desired objectives and goals, contingency rewards act as a motivation force (I. Khan). Therefore, contingency reward has a significant and positive effect on distributed leadership style of principal and their responsiveness toward their organization. Effectiveness in their work gives motivation and job satisfaction to them. Therefore, effectiveness in the distributed leadership style, responsiveness, and job satisfaction can be improved by contingency rewards (Or & Berkovich, 2023).

Recognition and reward incorporation in the educational organization lead to benefits like increased leadership style, retention, productivity, and job satisfaction in educational organizations. Contingency rewards affect the distributive leadership style by increasing motivation, creating a positive workplace, showing appreciation, and encouraging friendly competition (Tang & Tang, 2019). Moreover, instructional leadership provides an environment with correct behaviour where contingency rewards play a role in extrinsic motivation for desired behaviour. The motivation next leads the leader toward a satisfaction level regarding the job. Contingent reward transactional leadership provides tangible or intangible support and resources to subordinates in exchange for the work and performance which is required for the organization (Bellibaş, Kılınç, et al., 2021). Employees fulfil the vision of the organization when they receive a contingent reward, egalitarian, pay structure, and non-financial reward. Therefore, the contingency reward system is directly related to employee satisfaction level, commitment, performance, productivity, and participation which function as a substitute for employee engagement (De Silva, 2023).

INSPIRATIONAL MOTIVATION AS A PREDICTOR

There is a positive correlation between the academic achievement of the student and the inspirational motivation behaviour of teachers and leaders (Gyansah, Ogola, & Guantai, 2020). There is also a positive and strong correlation between the engagement of employees and inspirational motivation. Employee performance is strongly correlated with inspirational motivation compared to other dimensions of transformational leadership style (Top, Abdullah, &

Faraj, 2020). It proves that inspiration and motivation impact the performance of the student and the performance of the leader. Therefore, it influences other sub-factors also (Salas-Vallina et al., 2020). Extensive popularity is received by distributed leadership styles as compared to other leadership styles. The reason for that is different approaches to enhance the creativity of employees by motivation as compared to other styles. For affecting the creativity of employees in educational organizations, distributed leadership style with inspirational motivation is very important (Shafi, Lei, Song, & Sarker, 2020). It is very suitable to develop competencies and identify novel opportunities for an educational organization. Inspirational motivating behavior with distributed leadership style increases the confidence and values of employees and as result, employee outcomes increase (Collins, Owen, Digan, & Dunn, 2019).

Besides, for instructional leadership style, motivation is always crucial since the level of motivation among educational institutes will influence the success of the institute (Demirdag, 2021). Instructional leadership style is the most favoured leadership style with the consideration of the schooling system. Inspirational motivation has the power to direct people in a positive direction, maintaining movement, and their activation. The sum of effort made to achieve determined goals by employees for the educational organization is motivation. Inspirational motivation includes all the forces that assist individuals to fulfil their duties with enthusiasm (Doğan et al., 2020). Inspirational motivation is directly associated with some conditions, for example, performance, energy, and maintenance. Inspirational motivation is positively related to instructional leadership style. Inspirational motivation is predicted by instructional leadership behavior. Through the motivation of employees in the organization, leaders' effectiveness can be determined (Skaalvik, 2020). For the enhancement of teachers' level of motivation, the driving force is the instructional leadership style. The principals are instructional leaders of the school. Therefore, expectations from the principal are high. Teachers' motivation is influenced by the instructional leaders (principals of school) by impacting aims and their educational practices (Özdemir et al., 2020).

PERCEIVED LEADER EFFECTIVENESS AS A PREDICTOR

In practical terms, the leadership style of the principal should be according to the environment of school and based on the specialties of teachers as well. Building a vision, guiding about the directions, and combining the strengths of all the team members is the responsibility of

a proficient leader in addition to outlining the future development for their employees and setting goals for making the organization successful as a whole (Acton, 2021). Therefore, it has been made clear that effectiveness of the perceived leadership creates a significant impact on the distributed principal leadership style and the job satisfaction level and it has been made clear that the relationship between distributed principal leadership and job satisfaction is very significant (Torres, 2019). The commitment of teachers with the school and the level of their job satisfaction is crucial for the effective working of the whole system of school so that the performance of school can be made better (Liu et al., 2021).

Leadership style in schools is related to the commitment of teachers with the school organization (Kõiv et al., 2019) and the level of satisfaction with their jobs (ATIK & CELIK, 2020). As far as the concept of instructional leadership is concerned as a part of formal style of leadership, the decisions are taken by the leaders having higher authorities (Maheshwari, 2021), so the leaders of school should practice leadership during the performance of different operations by arranging all the things in a collaborated way by which all the individuals of school organization can be informed about the key decisions taken by the management team (Qadach et al., 2020). Perceived leadership effectiveness helps in creating a higher level of commitment with the system of school by considering the significance of the vision of school which can be made possible if significant efforts are contributed by the leaders (Liu et al., 2021).

CONCEPTUAL FRAMEWORK

Therefore, based on the above cited studies and discovered knowledge from the literature, this study has proposed the following framework:

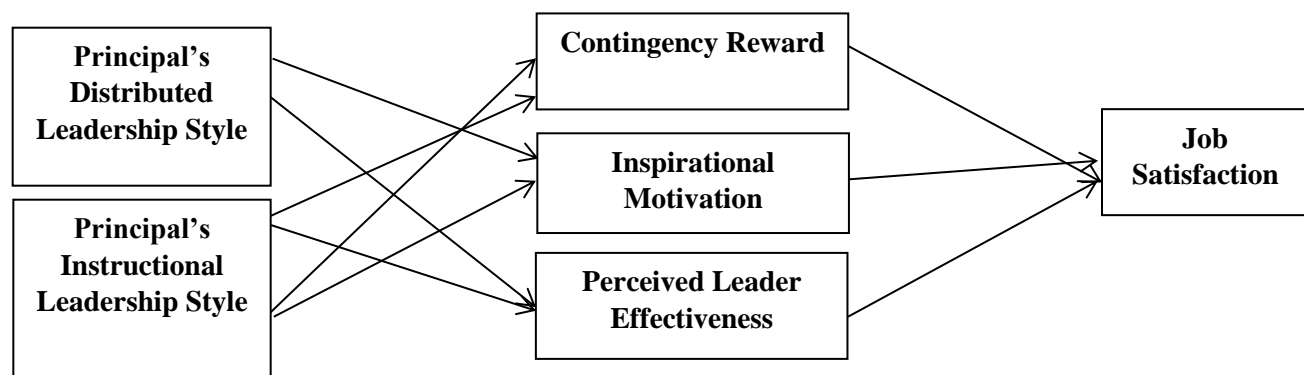


Figure 2: Proposed Conceptual Framework (Source: Author-generated)

CONCLUSION

Hence, Liu et al. (2021) has shown a significance impact of distributive leadership on the performance of the teacher as the school principal helps the teacher in managing their work roles, performing their duties well, staying them committed with their jobs, and enhancing their job satisfaction. Similarly, another study performed by Liu et al. (2021) has determined the impact of distributive leadership and instructional leadership on the job satisfaction and self-efficacy of the teachers. The findings of this study have shown that both of these leadership styles are directly and positively associated with the self-efficacy and job satisfaction of the teachers. Moreover, as per Tang (2019), empowered leadership i.e., distributed leadership supporting a contingent reward system significantly leads to employee satisfaction and job experience. It was also confirmed that effective leadership functions impacted employee involvement and controlled the experience and satisfaction of the employees.

The study by Cahyono et al. (2020) examined the leadership dimensions and their impact on the organizational commitment of the lecturers at higher education institutes. Job satisfaction was found significantly associated with the leadership styles and job performance of the teachers. Moreover, inspirational motivation and intellectual stimulation held sheer importance in determining the engagement, commitment, and satisfaction of the teachers. Under such leadership behaviours, the employees experienced high motivation and a high level of job satisfaction. Furthermore, Azorín et al. (2020) indicated that leadership was a significant contributor which promoted efficient professional networking within the context of educational institutions. In this accordance, perceived effectiveness of instructional leadership and distributed leadership provided a significant base to increase job satisfaction of teachers. Within the educational settings, Daniëls et al. (2019) also stated that the principals in educational setting had significant potential in formulating learning environment and improving organizational culture for teacher and students., and an efficient organizational culture was linked with the job satisfaction of teachers. In addition, they also stated that perceived effectiveness of leadership should be the aim of educational institutions as positive perceived behaviour improves individual outcomes like job satisfaction.

The findings of Maponya (2020) indicated the significant linkage between learner achievement, motivation, and establishment of positive teaching culture. All of these determinants

are the significant predictors of job satisfaction. Besides, Naz and Rashid (2021) also indicated that the principals in the school as instructional leaders could enhance motivation and job satisfaction among teachers. This inspirational motivation encouraged principals to perform their duties and enhance their job satisfaction. They also discussed that inspirational motivation also enhanced the innovative ways of principals' leadership style which assisted them to make efficient organizational and learning culture for both students and teachers. This research is quite useful as it would help educational policymakers to devise policies in the future that ensure teacher's job satisfaction through distributed and instructional leadership of Chinese school principals with the mediating roles of reward, motivation and effectiveness. The introduction of leadership development and training programs for school principals would be prioritized by education policymakers. These programs would focus on giving principals the abilities and expertise they need to delegate leadership duties and support instruction. Policymakers would guarantee that principals have the tools they need to foster a productive workplace that raises teachers' job satisfaction by investing in leadership development. Moreover, the system of incentives and rewards, that acknowledges and honours instructors for their accomplishments and efforts, would be prioritized by the policymakers.

References

- Abed, A. R. (2022). KNOWLEDGE ECONOMY AND THE FUTURE OF HUMAN JOBS. *World Economics and Finance Bulletin*, 10, 65-72.
- Acton, K. S. (2021). School leaders as change agents: Do principals have the tools they need? *Management in Education*, 35(1), 43-51.
- Al-Mahdy, Y. F. H., & Alazmi, A. A. (2021). Principal Support and Teacher Turnover Intention in Kuwait: Implications for Policymakers. *Leadership and policy in schools*, 1-16.
- Ameen, A., Alshamsi, S., Isaac, O., Gazem, N. A., & Mohammed, F. (2021). Impact of inspirational motivation on organizational innovation (Administrative innovation, process innovation, and product innovation) *Advances on smart and soft computing* (pp. 613-623): Springer.
- ATIK, S., & CELIK, O. T. (2020). An Investigation of the Relationship between School Principals' Empowering Leadership Style and Teachers' Job Satisfaction: The Role of Trust and Psychological Empowerment. *International Online Journal of Educational Sciences*, 12(3).
- Azorín, C., Harris, A., & Jones, M. (2020). Taking a distributed perspective on leading professional learning networks. *School Leadership & Management*, 40(2-3), 111-127.
- Baroudi, S., Tamim, R., & Hojeij, Z. (2022). A quantitative investigation of intrinsic and extrinsic factors influencing teachers' job satisfaction in Lebanon. *Leadership and policy in schools*, 21(2), 127-146.
- Bellibaş, M. Ş., Gümüş, S., & Liu, Y. (2021). Does school leadership matter for teachers' classroom practice? The influence of instructional leadership and distributed leadership on instructional quality. *School effectiveness and school improvement*, 32(3), 387-412.
- Bellibaş, M. Ş., Kılınç, A. Ç., & Polatcan, M. (2021). The moderation role of transformational leadership in the effect of instructional leadership on teacher professional learning and instructional practice: An integrated leadership perspective. *Educational Administration Quarterly*, 57(5), 776-814.
- Benner, M. (2022). *A behavioral theory of economic development: the uneven evolution of cities and regions*: by Robert Huggins and Piers Thompson, Oxford, UK, Oxford University Press, 2021, 336 pp., £ 75.00 (Hardback), ISBN 9780198832348. Published to Oxford Scholarship Online: February 2021, DOI: 10.1093/oso/9,780,198,832,348.001. 0001: Taylor & Francis.
- Berjaoui, R. R., & Karami-Akkary, R. (2020). Distributed leadership as a path to organizational commitment: The case of a Lebanese school. *Leadership and Policy in Schools*, 19(4), 610-624.
- Bizzi, L. (2022). At the origin of network centrality: How to design jobs to make employees central. *Group & Organization Management*, 10596011221087494.

- Bush, T., & Ng, A. Y. M. (2019). Distributed leadership and the Malaysia Education Blueprint: From prescription to partial school-based enactment in a highly centralised context. *Journal of Educational Administration*, 57(3), 279-295.
- Cahyono, Y., Novitasari, D., Sihotang, M., Aman, M., Fahlevi, M., Nadeak, M., . . . Purwanto, A. (2020). The effect of transformational leadership dimensions on job satisfaction and organizational commitment: case studies in private university Lecturers. *Solid State Technology*, 63(1s), 158-184.
- Caza, B. B., Main, K., & Stuart-Edwards, A. (2022). Jack of All Trades, Master of None? Exploring Factors That Influence Responses to White-Collar Professionals with Multiple Jobs. *Academy of Management Discoveries*(ja).
- Chiu, C.-Y., Balkundi, P., Owens, B. P., & Tesluk, P. E. (2022). Shaping positive and negative ties to improve team effectiveness: The roles of leader humility and team helping norms. *Human relations*, 75(3), 502-531.
- Chughtai, M. S., Khalid, Y., Guan, R., & Razzaq, T. (2023). When Does Leadership Humility Nurture Career Success: A Moderated Mediation Model of Career Adaptability and Proactive Personality. *Journal of Innovative Research in Management Sciences*, 4(1), 35-53.
- Collins, E., Owen, P., Digan, J., & Dunn, F. (2019). Applying transformational leadership in nursing practice. *Nursing Standard*, 35(5), 59-65.
- Daniëls, E., Hondeghem, A., & Dochy, F. (2019). A review on leadership and leadership development in educational settings. *Educational research review*, 27, 110-125.
- De Silva, U. J. (2023). Employee motivation and performance.
- Decuypere, A., & Pircher Verdorfer, A. (2022). Leader Attentive Communication: A new Communication Concept, Validation and Scale Development. *Journal of Leadership & Organizational Studies*, 15480518221100922.
- Demirdag, S. (2021). School Principals' Instructional Leadership as a Predictor of Teacher Motivation. *ie: inquiry in education*, 13(2), 6.
- Dimotakis, N., Lambert, L. S., Fu, S., Boulamatsi, A., Smith, T. A., Runnalls, B. A., . . . Maurer, T. J. (2022). Gains and Losses: Week-to-Week Changes in Leader-Follower Relationships. *Academy of management journal*(ja).
- Dinh, N. B. K., Caliskan, A., & Zhu, C. (2021). Academic leadership: Perceptions of academic leaders and staff in diverse contexts. *Educational Management Administration & Leadership*, 49(6), 996-1016.
- Doğan, E., Aygün, H., Arslan, G., Rzayev, E., Avcı, B., Ayyıldız, M., & Açar, E. (2020). The role of NMDA receptors in the effect of purinergic P2X7 receptor on spontaneous seizure activity in WAG/Rij rats with genetic absence epilepsy. *Frontiers in Neuroscience*, 14, 414.

- Du, Y., & Yan, M. (2022). Green Transformational Leadership and Employees' Taking Charge Behavior: The Mediating Role of Personal Initiative and the Moderating Role of Green Organizational Identity. *International Journal of Environmental Research and Public Health*, 19(7), 4172.
- Ellen III, B. P., Ferris, G. R., & Buckley, M. R. (2021). Toward a more political perspective of leader effectiveness: Leader political support construct validation. *Journal of Organizational Behavior*.
- Fatimah, H., & Syahrani, S. (2022). Leadership Strategies In Overcoming Educational Problems. *Indonesian Journal of Education (INJOE)*, 3(2), 282-290.
- Finney, L. (2022). Inspirational Leadership. *Thales Learning and Development, Crawley, West Sussex*. www.thales-ld.com (Erişim tarihi: 20.01. 2022).
- Ghosh, A., Kessler, M., Heyrman, K., Opelt, B., Carbonelli, M., & Fouad, N. A. (2019). Student veteran career transition readiness, career adaptability, and academic and life satisfaction. *The Career Development Quarterly*, 67(4), 365-371.
- Gyansah, S., Ogola, M., & Guantai, H. (2020). Effect of school heads' inspirational motivation leadership practices on students' academic achievement in public high schools in Kumasi Metropolitan, Ghana. *Journal of Education and Practice*, 11(14), 76-86.
- Hickey, N., Flaherty, A., & Mannix McNamara, P. (2022). Distributed Leadership: A Scoping Review Mapping Current Empirical Research. *Societies*, 12(1), 15.
- Ishak, N., Khairuddin, F. N., & Aziz, N. S. (2022). PRINCIPAL'S LEADERSHIP STYLE AND JOB SATISFACTION AMONG TEACHERS AT AN URBAN PRIMARY SCHOOL IN KUALA LUMPUR, MALAYSIA. *Jurnal ILMU*, 11(1), 1-13.
- Islam, M. N., Furuoka, F., & Idris, A. (2021). Mapping the relationship between transformational leadership, trust in leadership and employee championing behavior during organizational change. *Asia Pacific Management Review*, 26(2), 95-102.
- Jackson, J., & Stevens, T. (2022). Predicting Teachers' Job Satisfaction from Student Aggression Toward Teachers and Related Trauma. *Contemporary School Psychology*, 1-12.
- Javidan, M., Waldman, D. A., & Wang, D. (2021). How life experiences and cultural context matter: A multilevel framework of global leader effectiveness. *Journal of Management Studies*, 58(5), 1331-1362.
- Jiang, L., Bohle, S. L., & Roche, M. (2019). Contingent reward transactional leaders as "good parents": Examining the mediation role of attachment insecurity and the moderation role of meaningful work. *Journal of Business and Psychology*, 34(4), 519-537.
- Kerns, C. D. (2022). Managing Leader Identity at Work: A Practice-Oriented Approach. *Journal of Leadership, Accountability and Ethics*, 19(1), 1-20.

- Khan, I. U., Khan, M. S., & Rehan, M. H. (2020). Exploring the Effects of Contingent Rewards on Employee Responsiveness and Affective Commitment. *Global Regional Review*, 1, 170-180.
- Kõiv, K., Liik, K., & Heidmets, M. (2019). School leadership, teacher's psychological empowerment and work-related outcomes. *International Journal of Educational Management*.
- Kong, D. T., Park, S., & Peng, J. (2022). Appraising and Reacting to Perceived Pay-for-Performance: Leader Competence and Warmth as Critical Contingencies. *Academy of management journal(ja)*.
- Lee, S. Y., & Lee, S. W. (2022). Facebook Use and Job Performance: The Mediating Effects of Social Capital, Knowledge Sharing, and Job Satisfaction. *International Journal of Human-Computer Interaction*, 1-16.
- Licki, M., & Van Der Walt, F. (2021). The influence of perceived cultural intelligence of school principals on teachers' job satisfaction and trust. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 30(2), 5-20.
- Liu, Y., Bellibaş, M. Ş., & Gümüş, S. (2021). The effect of instructional leadership and distributed leadership on teacher self-efficacy and job satisfaction: Mediating roles of supportive school culture and teacher collaboration. *Educational Management Administration & Leadership*, 49(3), 430-453.
- LIU, Z. (2022). The Moderating Effects of Teacher Collaboration on the Association Between Teachers' Job Satisfaction and Job Performance.
- Lu, X., & Smith, R. (2021). Exploring the manifestation of distributed leadership in Chinese Higher Education. *International Journal of Leadership in Education*, 1-19.
- Maheshwari, G. (2021). Influence of teacher-perceived transformational and transactional school leadership on teachers' job satisfaction and performance: A case of Vietnam. *Leadership and policy in schools*, 1-15.
- Maponya, T. J. (2020). The Instructional Leadership Role of the School Principal on Learners' Academic Achievement. *African Educational Research Journal*, 8(2), 183-193.
- Meredith, C., Moolenaar, N., Struyve, C., Vandecandelaere, M., Gielen, S., & Kyndt, E. (2022). The importance of a collaborative culture for teachers' job satisfaction and affective commitment. *European Journal of Psychology of Education*, 1-20.
- Muliati, M., Sudirman, S., & Fahrudin, F. (2020). The Effect of Principal Leadership Style to Teacher Job Performance. *International Journal of Multicultural and Multireligious Understanding*, 7(6), 66-72.
- Nasra, M. A., & Arar, K. (2019). Leadership style and teacher performance: mediating role of occupational perception. *International Journal of Educational Management*, 34(1), 186-202.

- Naz, F., & Rashid, S. (2021). Effective instructional leadership can enhance teachers' Motivation and improve students' learning outcomes. *sjesr*, 4(1), 477-485.
- Nurimansjah, R. A., Ramly, M., Mallongi, S., & Alam, R. (2022). The Intervention of Job Satisfaction in Influence the Empowering Leadership and Talent Management Toward Staff Performance. *Jurnal manajemen bisnis*, 9(1), 67-76.
- Ohunakin, F., & Olugbade, O. A. (2022). Do employees' perceived compensation system influence turnover intentions and job performance? The role of communication satisfaction as a moderator. *Tourism Management Perspectives*, 42, 100970.
- Or, M. H., & Berkovich, I. (2023). Participative decision making in schools in individualist and collectivist cultures: The micro-politics behind distributed leadership. *Educational Management Administration & Leadership*, 51(3), 533-553.
- Özdemir, G., Sahin, S., & Öztürk, N. (2020). Teachers' Self-Efficacy Perceptions in Terms of School Principal's Instructional Leadership Behaviours. *International Journal of Progressive Education*, 16(1), 25-40.
- Purwanto, A., Novitasari, D., & Asbari, M. (2022). Tourist Satisfaction and Performance of Tourism Industries: How The Role of Innovative Work Behaviour, Organizational Citizenship Behaviour? *Journal of Industrial Engineering & Management Research*, 3(1), 1-12.
- Qadach, M., Schechter, C., & Da'as, R. a. (2020). Instructional leadership and teachers' intent to leave: The mediating role of collective teacher efficacy and shared vision. *Educational Management Administration & Leadership*, 48(4), 617-634.
- Rabuzin, T. (2022). System-Wide Impacts of Distributed Generation on Power System Operation: Data-Driven Approaches to Addressing the Challenges of Integrating Distributed Generation. KTH Royal Institute of Technology.
- Radi Afsouran, N., C Thornton III, G., & Charkhabi, M. (2022). Leadership Development Assessment Center: A Review on Advantages and Disadvantages for Developing Leadership Behavioral Competencies. *International Journal of Organizational Leadership*, 11(1), 71-88.
- Rickley, M., & Stackhouse, M. (2022). Global leadership effectiveness: A multilevel review and exploration of the construct domain. *Advances in global leadership*.
- Roy, M. (2021). *Social Identity, Leadership and Group Behavior: Theory and Experiments*. George Mason University.
- Salas-Vallina, A., Simone, C., & Fernández-Guerrero, R. (2020). The human side of leadership: Inspirational leadership effects on follower characteristics and happiness at work (HAW). *Journal of Business Research*, 107, 162-171.
- Shafi, M., Lei, Z., Song, X., & Sarker, M. N. I. (2020). The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. *Asia Pacific Management Review*, 25(3), 166-176.

- Shaturaev, J., & Bekimbetova, G. (2021). THE DIFFERENCE BETWEEN EDUCATIONAL MANAGEMENT AND EDUCATIONAL LEADERSHIP AND THE IMPORTANCE OF EDUCATIONAL RESPONSIBILITY. InterConf.
- Sheikh, A. M. (2022). Leader humility and team effectiveness: a moderated mediation model of leader-member exchange and employee satisfaction. Paper presented at the Evidence-based HRM: a Global Forum for Empirical Scholarship.
- Shengnan, L., & Hallinger, P. (2021). Unpacking the effects of culture on school leadership and teacher learning in China. *Educational management administration & leadership*, 49(2), 214-233.
- Skaalvik, C. (2020). School principal self-efficacy for instructional leadership: relations with engagement, emotional exhaustion and motivation to quit. *Social Psychology of Education*, 23(2), 479-498.
- Skaalvik, C. (2020). School principal self-efficacy for instructional leadership: relations with engagement, emotional exhaustion and motivation to quit. *Social Psychology of Education*, 23(2), 479-498.
- Skaalvik, C. (2020). School principal self-efficacy for instructional leadership: relations with engagement, emotional exhaustion and motivation to quit. *Social Psychology of Education*, 23(2), 479-498.
- Sorin, A., Shechtman, S., & Hoory, R. (2020). Principal Style Components: Expressive Style Control and Cross-Speaker Transfer in Neural TTS. Paper presented at the INTERSPEECH.
- STAIC, L. G., ULIU, D. V., & VLADU, M. (2022). ANALYSIS OF THE INFLUENCE OF FINANCING ON THE SUSTAINABLE LOCAL DEVELOPMENT OF THE RURAL TERRITORIES, PART OF THE LAGS, THROUGH THE LEADER METHOD. *Scientific Papers: Management, Economic Engineering in Agriculture & Rural Development*, 22(1).
- Stevenson, O. (2021). *Claimant or client? a social worker's view of the Supplementary Benefits Commission*: Routledge.
- Stewart, G. L., Courtright, S. H., & Manz, C. C. (2019). Self-leadership: A paradoxical core of organizational behavior. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 47-67.
- Tambrin, M., Wasliman, I., Hanafiah, H., & Mudrikah, A. (2021). Implementation and evaluation of teachers' performance supervision at Madrasah Aliyah (Islamic Senior High School). *Journal of Education Research and Evaluation*, 5(4), 645-655.
- Tang, K. N., & Tang, K. N. (2019). Leadership styles and organizational effectiveness. *Leadership and change management*, 11-25.
- Top, C., Abdullah, B. M. S., & Faraj, A. H. M. (2020). Transformational leadership impact on employees performance. *Eurasian Journal of Management & Social Sciences*, 1(1), 49-59.

- Torres, D. G. (2019). Distributed leadership, professional collaboration, and teachers' job satisfaction in US schools. *Teaching and Teacher Education*, 79, 111-123.
- Torres, D. G. (2019). Distributed leadership, professional collaboration, and teachers' job satisfaction in US schools. *Teaching and Teacher Education*, 79, 111-123.
- Torres, D. G. (2019). Distributed leadership, professional collaboration, and teachers' job satisfaction in US schools. *Teaching and Teacher Education*, 79, 111-123.
- Touati, R., Sailer, I., Marchand, L., Ducret, M., & Strasding, M. (2022). Communication tools and patient satisfaction: A scoping review. *Journal of Esthetic and Restorative Dentistry*, 34(1), 104-116.
- Tran, T. B. H., & Choi, S. B. (2019). Effects of inclusive leadership on organizational citizenship behavior: the mediating roles of organizational justice and learning culture. *Journal of Pacific Rim Psychology*, 13.
- Wasito, H., Sahertian, P., & Maulina, V. (2021). Leadership Style, Organization Culture, Motivation, and Principal Supervision of Teachers. *Culture*, 134(046), 261.
- Wasito, H., Sahertian, P., & Maulina, V. (2021). Leadership Style, Organization Culture, Motivation, and Principal Supervision of Teachers. *Culture*, 134(046), 261.
- Wellman, N., Ashford, S. J., Sanchez-Burks, J., & DeRue, D. S. (2022). Leading When the Boss is Present: How Leadership Structure Schemas Affect Leadership Behavior. *Journal of Leadership & Organizational Studies*, 15480518221076767.
- Yang, Z., Jaramillo, F., Liu, Y., Ye, W., & Huang, R. (2020). Abusive supervision in retailing: the mediating role of customer orientation and the moderating roles of contingent reward and contingent punishment. *European Journal of Marketing*.
- Younas, A., Wang, D., Javed, B., & Haque, A. U. (2022). Inclusive leadership and voice behavior: The role of psychological empowerment. *The Journal of Social Psychology*, 1-17.
- Zafar, H. (2021). Despotic Leadership and Job Satisfaction: Mediating role of Emotional Exhaustion.
- Zahed-Babelan, A., Koulaei, G., Moeinikia, M., & Sharif, A. R. (2019). Instructional leadership effects on teachers' work engagement: Roles of school culture, empowerment, and job characteristics. *CEPS Journal*, 9(3), 137-156.
- Zhang, J., Huang, Q., & Xu, J. (2022). The Relationships among Transformational Leadership, Professional Learning Communities and Teachers' Job Satisfaction in China: What Do the Principals Think? *Sustainability*, 14(4), 2362.