

# **The Perceptions and Experiences of Secondary School Management Teams (Smts) On Teamwork in Guangdong, China**

**By**

**Xiao Xiong**

Postgraduate Student, INTI International University, Malaysia

**Phawani Vijayaratnam**

Senior Lecturer, INTI International University

## **Abstract**

In China, a series of education reform has been conducted in recent years in response to the economic and social changes, and these reforms bring new challenges to the school management to some extents. A recent hot academic research topic is the school management team (SMTs) in school, that researchers concern the correlation between other school administrative factors and the performance SMTs. As one of the similar attempts, this research explores the influence of the instructional leadership, the perception of teamwork, the experience of teamwork-on-teamwork performance of SMTs in secondary schools. This research selects the collegial model as the theoretical model. Quantitative research was selected with data collected from 216 teachers in 14 schools in Guangdong. Findings reveal that the perception of teamwork and the experience of teamwork is positively correlated to the teachers' teamwork performance, while instructional leadership is not significantly correlated with the teamwork performance of teachers.

**Keywords:** teamwork performance; teamwork perception; teamwork experience

## **1. Introduction**

China has the largest scale of basic education receivers in the world. In June 2021, 10.79 million students in China took the National Higher Educational Entrance Exams. (Chen-Levi et al. 2021). Accompanying the growing number of students is the increasing demand on educational management in schools. For example, in 2020, China's Ministry of Education launched a pilot education program that allowed 36 top universities in the country, including Peking University, Tsinghua University, and Fudan University, to establish direct subordinate high schools in Guangdong province. In this operation mode, the superior management experience from the top universities can mentor and help improve the educational management level in schools. In this background, it is significant to be concerned with the school management operation in secondary schools. Academic research in recent years has been on the performance of school management teams (SMTs), and the correlation between other school administrative factors and the performance SMTs (Mestry & Govindasamy, 2021). This research explores the influence of the instructional leadership, the perception of teamwork, and the experience of teamwork-on-teamwork performance of SMTs in secondary schools.

## **2. Problem Statement**

In secondary school, teamwork is essential for the efficient and effective management of teaching and learning. It also aids in the successful development of educational policies at the micro level, particularly in the classroom. Despite the difficulties in implementing flawed education reforms (Muirhead et al. 2018), the lack of teamwork, among other things, in the

SMT at Guandong China high schools appears to have had an impact on educator performance in the classroom and the education quality. However, Xu (2016) pointed out that in most secondary schools in China, there is a dearth of collaborative expertise in the SMTs, which makes the teamwork cooperation and teamwork performance of the SMTs in secondary questioned. Therefore, there is a need to be concerned with teamwork performance in secondary schools, and how does the performance of teamwork relate to other common factors.

### **3. Research objectives**

The research objectives are as follows:

**RO1:** To analyze the influence of instructional leadership on teamwork performance of SMTs.

**RO2:** To analyze the influence of perception of teamwork on teamwork performance of SMTs.

**RO3:** To analyze the influence of experience of teamwork in schools on the teamwork performance of SMTs

### **4. Literature review**

#### **4.1 Global Perspective**

Stephen Robbins, a professor of management at the University of San Diego, viewed the concept of a "team": a formal group of individuals working together to achieve a goal (Zwane, 2018). Zacharia (2021) pointed out that the essence of teamwork is joint dedication. This shared commitment requires a goal that is practical, challenging, and convincing to the members (Tigere, 2020). This can inspire the team's work motivation and dedication spirit, regardless of each other, common dedication (Sunke, 2021). In a team, only by members constantly sharing their own strengths and advantages, constantly absorbing the strengths and advantages of other members, and timely communication when encountering problems, can the strength of the team be brought into full play (Shava, Maradze and Ncube, 2021). Teamwork is a spirit of voluntary cooperation and concerted efforts to achieve a set goal. With the advent of knowledge economy, various new knowledge and technology emerge in endlessly, and the social needs are becoming more and more diversified. Individual ability alone has become increasingly unable to cope with the complexity of the social environment, and it is difficult to deal with these problems efficiently (Padayachee, 2021). Teamwork is the indispensable essence of any team. It is the selfless dedication based on mutual trust, so that team members complement each other and help each other (Ogundile, Bishop and Olanrewaju., 2019). Team work requires constant discussion among members. If one person is stubborn, unable to listen to others, or unable to agree with others, the team will not be able to work (Oh and Zo, 2019). The efficiency of a team lies in the tacit understanding of cooperation. Team cooperation has been more and more favored by enterprise managers, and it has become the trend and trend of today's enterprise development (Mestry and Govindasamy, 2021).

#### **4.2 China Perspective**

Zhang and Zhou (2020) believe that teamwork refers to the process of a group of capable and confident people working in a specific team to support and cooperate with each other for a common goal. Teamwork is conducive to the realization of enterprise goals, which requires the efforts of every employee, and teamwork is a huge driving force for enterprise innovation. It can mobilize all the resources and talents of the team members, and will automatically drive out all disharmony and injustice, and will give those sincere, selfless devotees appropriate returns (Zhang, Li and Liu, 2021). When teamwork is voluntary, it can be a powerful and lasting force (Zhan, 2020). Chinese enterprises emphasize teamwork, and

the Chinese attitude emphasizes "focus on doing big things" (Yuan, 2019). Such collectivist values have become the mainstream values of the Chinese people (Yu, 2017; Xu, 2016). Teamwork is beneficial to improve the overall efficiency of the enterprise (Dugang, 2020). By carrying forward the spirit of teamwork and strengthening the construction of teamwork, internal friction can be further saved (Chen, 2021).

### ***4.3 Factors under Study***

#### ***4.3.1 Studies on the Influential factors of teamwork performance of SMTs***

From the human angle, the major influential factors of teamwork performance of SMTs, are generally the knowledge and the perception of the team members. Zhan (2020) held that the factors affecting teamwork performance in schools include, knowledge on teamwork of team members, team characteristics, school teaching management style and scientific research management degree.

Based on the hypothesis of bounded rationality, Zhang et al. (2021) introduced several important influencing factors into the evolutionary game model, and derived the model to investigate the conditions of stable teamwork performance in school. He held that whether members are willing to cooperate subjectively is actually determined by their own comparison of cooperation costs and cooperation benefits. The explicit cooperation cost includes members' time and energy input in cooperation activities and team discussion. Implicit cooperation costs include the relative decline of competitiveness due to the sharing of their own experience and the anonymization of team results. Therefore, he argued that the cognition of importance of teamwork is a significant influential factor. Xu (2016) pointed out that at present, there exists some common problems in the SMTs in primary and secondary school such as weak teamwork perception, lack of cooperation mechanism, lack of incentive mechanism, lack of expertise. Aiming at the Chinese subject team of Shanghai primary school, Yu (2017) pointed out that there are some problems in SMTs' teamwork, such as low cooperation cognition, autocratic leadership, interpersonal tension, solidification of teachers' experience.

#### ***4.3.2 The key roles that make up leadership in a self-managed school***

The Chinese Ministry of Education has developed the Chinese Principal Standards to continue to strengthen the Chinese education system. The Ministry outlines in detail the responsibilities of the head teacher. School management in a changing educational environment assumes four characteristics that collectively define the principalship (Dugang 2020). Leadership styles relate to the academy model: transformational leadership, participative management and pedagogical leadership (Mestry & Govindasamy 2021). A core principle of organisational management is a focus on the commitment of organisational members and the fact that greater individual commitment to organisational goals and greater ability to achieve them will increase organisational productivity. These characteristics, when viewed doubly, encapsulate the various roles that school leaders play in schools in fulfilling the responsibilities of the various constituencies they represent - headmasters as teachers, governors, change advocates and managers" (Basson & Mestry 2019).

## **5 Gaps in the Literature**

Literature review implies that many researchers have been concerned with the importance of teamwork in schools, and explored the interrelated factors such as members' knowledge and perception (Zhan, 2020), and the cognition of importance of teamwork (Zhang et al., 2021). Still some research gaps have been exposed. First, lack of research that examines the possible influence of instructional leadership on the teamwork performance in schools.

Studies find that leadership and teamwork performance in enterprise context is closely related to each other (Oh, Lee & Zo, 2019); but in the educational management field, this lack of study needs attention. Another research gap is the factor of experience. Experience of teamwork has an influence on teamwork cooperation (Sanderson et al., 2022) in the commercial work field, but whether owning experience of educational teamwork may influence teachers' current teamwork performance is lacking in research. Studies on the perceptions of teamwork are rich, but the study taking the Guangdong schools as case presents a gap as well. This research uses a management model that involves the instructional leadership, perception of teamwork and experience of teamwork, to examine their influence on teamwork performance, with the case in Guangdong province, and aims to extract the skills that will be helpful for good teamwork.

## **6. Underlying Theory**

The academy model from Tony Bush's theory of educational management was chosen as the theoretical basis for this study. Collegial model is featured by discussion to reach consensus. It is the most widely adopted model in universities. It presents the features of Strongly normative in orientation (Bush, 1997 ;Bush, T. and Glover, D., 2021), assuming a common set of values headed by members of the organization (Haefele, 2019), and assuming that decisions are reached by consensus rather than division or conflict (Haefele, 2019). Collegial models are attractive because they advocate teacher participation in decision-making. Many principals aspire to collegiality which provides the setting for political activity or top-down decision-making (Bush, 2003). Haefele (2019) summarized features of collegial model in secondary schools, which are Commitment to regular formal opportunities for collaboration among heads of department and colleagues from different subject areas toward school development plans with issues identified and agreed collectively. Also Heads of departments are actively involved and consulted in whole-school policy and decision-making having a wider whole-school management role.

## **7. Conceptual framework**

The conceptual model of this thesis has referred to the model of Mestry & Govindasamy (2021), Padayachee (2021), and Bhengu & Blose (2022), which revealed the correlations among teamwork, perception, instructional leadership, experience, and school effectiveness (which consists of quality of teaching and learning). According to Mestry & Govindasamy (2021), teamwork represents a working group, with school managers prescribing aims, communicating, cooperating, making decisions together, knowledge and ability to work together in making work plans to achieve the goal. To succeed in this regard, the instructional leadership states that an effective principal must be aware of trends in the development of the school curriculum (Doblinger 2022). In this paper, the variables were extracted from the previous studies, the conceptual model has been modified, with the instructional leadership, the perception of teamwork, the experience of teamwork serving as the independent variables, and the performance of teamwork as the dependent variable.

## **8. Research Design**

A quantitative approach was used to accurately describe the influence and the correlation among the variables. The researcher identified 14 schools with a total of 216 teachers as the sample size. The researcher selected random sampling because it was expected to be able to reflect the objective situation of the SMTs' perceptions of instructional leadership and the influence, without selecting specific groups (Acharya et al., 2013). The survey was

carried out online due to the covid outbreak that was affecting Guangdong Province. A total of 205 questionnaires were returned, of which 202 were authentic and valid, out of a total distribution of 240.

### 8.1 Questionnaire design

The questionnaire design referred to some mature scales designed by previous researchers (Lou, 2018; Zhang & Zhou, 2020). The questionnaire was designed to consist of five parts: part I is personal and job information, which aims to collect the respondents' basic information of age, gender, work years as teachers, with or without the experience of being the instructional leaders before. The part II was the scale of instructional leadership, which has referred to the scale by Lou (2018), with 10-15 questions, measuring teachers' perceptions of the leadership of their leaders. Part III was the scale of perception of teamwork which has referred to the scale of Yuan (2019), measuring the perception of teamwork of teachers. Part IV was the scale of experience of teamwork, which has referred to the scale of Yuan (2019), measuring the experience of teamwork of teachers. Part V is the scale of teamwork performance, which has referred to the scale developed by Zhang & Zhou (2020), measuring the teamwork performance in schools.

### 8.2 Pre-Testing

The survey was piloted in three schools before data collection, and 30 questionnaires were given out in total. The test of reliability and validity showed that the scale has good reliability and validity and qualified for formal survey

## 9. Data Analysis

The goal of the study is to find out how SMT teamwork performance may be influenced by some administrative factors. Data were analyzed by comparing and categorizing responses to questionnaires.

### 9.1 Participant characteristics

The demographic profile of the respondents is shown in the table below. Descriptive analysis was used to examine the demographic characteristics.

#### 9.1.1 Gender

**Table 1:** Gender

Demographic	Categories	Frequency	Percentage (%)
Gender	Male	72	33.3
	Female	144	66.7

From the data, from the 216 responses received, it was found that 33.3% respondents were male, while 66.7% were female.

### 9.1.2 Age

**Table 2:** Age

Demographic	Categories	Frequency	Percentage (%)
Age	18-25 years old	61	28.2
	25-35 years old	95	44.0
	35-50 years old	35	16.2
	51 years and above	25	11.6

It was found that 44% respondents were at the age range of 25-35 years old, followed by 18-25 years old (28.2%), 35-50 years old (16.2%), and 51 years old or above (11.6%).

### 9.1.3 Time of being teacher/SMTs member in this school

**Table 3:** Time of being teacher in school

Demographic	Categories	Frequency	Percentage (%)
Time of being teachers/SMTs members in this school	Less than 1 year	26	12.0
	1-3 years	112	51.9
	3-5 years	56	25.9
	More than 5 years	22	10.2

It was found that 51.9% teachers or SMTmembers have worked for their school for 1-3 years; followed by 3-5 years (25.9%), less than 1 year (12%), and more than 5 years (10.2%).

## 9.2 Factor analysis

### 9.2.1 KMO and Bartlett's Test of Sphericity of independent and dependent variables

Results shows that KMO values for both independent variables and dependent variable are higher than 0.5; specifically, higher than 0.8, which means that the KMO value of them are very suitable for factor analysis. The Bartlett's Test of Sphericity values for both independent variables and dependent variable are  $<0.01$ , so this value of indicator also implies that the scale has good validity, and is qualified for factor analysis.

### 9.2.2 Factor loading of independent and dependent variables

Factor loading refers to the correlation coefficient between each original variable and each common factor, which reflects the importance of variables to common factors (Ogundile et al., 2019). It is found that factor loading value of both independent variables and dependent variable are more than 0.6, which implies that all items in the questionnaire were accepted for further analysis (Knekta et al., 2019).

### 9.3 Reliability Analysis

**Table 4:** *reliability test*

Variables	Cronbach's Alpha	N of Items
Instructional leadership (Independent Variable)	0.902	11
Perception of teamwork (Independent Variable)	0.877	7
Experience of teamwork (Independent Variable)	0.892	8
Teamwork performance (Dependent Variable)	0.921	10
ALL	0.945	36

The value of Cronbach's Alpha is all higher than 0.8, which shows that the four scales all have good reliability and internal consistency (Ogandile, et, al., 2019).

### 9.4 Hypotheses testing

#### 9.4.1 *multi-linear regression analysis*

**Table 5:** *multiple regressive model*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.648 <sup>a</sup>	.419	.403	.55735

a. Predictors: (Constant), Instructional leadership, perception of teamwork, experience of teamwork

b. Dependent Variable: teamwork performance

The results of table 5 shows that the squared goodness of fit is 0.419, which implies a good fitness of the model.

**Table 6: ANOVA analysis**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	P
1	Regression	46.881	6	7.814	25.153	.000 <sup>a</sup>
	Residual	64.923	209	.311		
	Total	111.804	215			

- c. Predictors: (Constant), Instructional leadership, perception of teamwork, experience of teamwork  
d. Dependent Variable: teamwork performance

ANOVA (analysis of variance) determines whether or not the means of various groups are equal (Pujar et al., 2020). The above ANOVA results showed that the model established in this study was statistically significant ( $P < 0.05$ )

**Table 7: Beta Coefficient results from Multiple Linear Regression**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	sig	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.386	.148		2.612	.010		
	Instructional leadership	.107	.064	.120	1.676	.095	.544	1.837
	Perception of teamwork	.131	.052	.168	2.518	.013	.624	1.602
	Experience of teamwork	.310	.055	.380	5.620	.000	.607	1.647
	Gender	-.057	.111	-.037	-.513	.608	.521	1.921
	Age	.023	.050	.030	.455	.649	.638	1.568
	Working experience	.142	.060	.162	2.373	.019	.600	1.667

The results show that the p value of IVs of “perception of teamwork” and “experience of teamwork” are both  $< 0.05$ , which shows that they have a positive correlation with the DV. While the IV of “instructional leadership” does not present such correlation as the p value of it is 0.095, which is  $> 0.05$ .



### 9.4.2 Results of hypotheses testing

The results of hypotheses testing are listed in the following:

**Table 8:** Hypothesis testing results

Hypotheses	Results
Hypothesis 1 the instructional leadership is positively correlated with the teamwork performance.	Rejected
Hypothesis 2 the perception of teamwork is positively correlated with the teamwork performance.	Accepted
Hypothesis 3 the experience of teamwork is positively correlated with the teamwork performance.	Accepted

## 10. Recommendations

### 10.1 The suitability of collegial model to this research

As per Haefele (2019), the author argues that collegial model as highly suitable for this research. Because compared to formal model, which relies on the principal to make decisions making for the management, the collegial model highlights the decisions-making being made by consensus of a group of members, rather than the principal, and it highlights the joint efforts of all members (including teachers and SMT members), to help achieve the educational goal. And the research hypotheses testing shows that the instructional leadership is not significantly correlated with the teamwork performance of teachers, but the perception of team members as well as their experience is significantly correlated with team work performance. This implies that the role of principal to teachers' teamwork performance has been impaired, while the role of teachers and other department heads have been highlighted. So this model can bring help to the improvement of teamwork performance effectively by emphasizing the role of various teachers and SMT members.

### 10.2 The sustainability of teamwork performance of SMTs

Based on the collegial model, the role of SMT members should be highlighted. Efforts can be made in terms of teamwork perception enhancement and teamwork experience complement. First, the schools should take approaches to enhance the teamwork perception of managers in daily school management. This requires a series of operations, such as launching teamwork training, knowledge sharing. The teamwork training is always an effective approach to enhance the teamwork perception, but it needs the support from financial department. (Plega et al., 2019). In terms of mechanism, the school managers should design a mechanism in office that encourages managers to take a team as the work unit rather than an individual. Other approaches include building a teamwork work culture and atmosphere in the teachers' office using experienced members to positively function (Polega et al., 2019).

Another research finding is that team work perception is positively correlated with teamwork performance. While there is lack of literature found to examine the correlation between these two teamwork perception and teamwork performance, the discussion takes the similar studies with different subjects to make comparison. Beigpourian et al.'s study (2019) showed that Preferred Leadership Role has a great impact on students' perception of team and the outcome of team. The author argues that the perception of the teamwork may influence teamwork attitude and behaviors of the teachers, (Jin & Harp, 2020), and further influence on the teamwork performance of the teachers.

Finally, the correlations of these two variables have been verified in the studies on other industries; for example, Rapp et al.'s (2020) research shows that in sales teams, team experience will contribute to the team performance while Riskin et al.'s study (2015) shows that in medical industry, experience of team produces influence on the team performance.

In summary, this research verifies the significant correlation between the two independent variables and the teamwork performance.

### **10.3 Future Research**

Since the research results of this study shows that principal leadership is not relevant to the teamwork performance of teachers a more refined study on the correlation is needed in the future, which subdivides the variables into more sub-items to further explore their correlation.

## **Reference**

- Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and how of it. *Indian Journal of Medical Specialties*, 4(2), 330-333.
- Basson, P. and Mestry, R., 2019. Collaboration between school management teams and governing bodies in effectively managing public primary school finances. *South African Journal of Education*, 39(2).
- Beigpourian, B., EbrahimiNejad, H., Ohland, M. W., & Ferguson, D. M. (2019, October). The Effect of Preferred Leadership Role and Preferred Team Leadership Structure on Students' Perception of Team Processes and Outcome. In 2019 IEEE Frontiers in Education Conference (FIE) (pp. 1-6). IEEE.
- Bhengu, T.T. and Blose, S., 2022. Developing a Collaborative Teacher Learning Culture: Perspectives of Three Secondary School Principals in the Pinetown District. *Journal of Educational Studies*, 21(1), pp.51-68.
- Bush, T. (1997). Collegial models. *Organizational effectiveness and improvement in education*, 68-79.
- Bush, T. and Glover, D., 2021. Research on school leadership in South Africa: A systematic review. *Systematic Reviews of Research in Basic Education in South Africa*, p.115.
- Chen-Levi, T., Schechter, C. and Buskila, Y., 2021. Exploring Systems Thinking in Schools: Mental Models of School Management Teams. *International Journal of Educational Reform*, 30(2), pp.116-137.
- Chen, Y. L. (2021). My opinion on Teachers' team cooperative learning. *Educational exploration* (6), 3.
- Doblinger, M., 2022. Individual Competencies for Self-Managing Team Performance: A Systematic Literature Review. *Small Group Research*, 53(1), pp.128-180.
- Dugang, M.A.P., 2020. School Teamwork and Effectiveness. *Journal of World Englishes and Educational Practices*, 2(2), pp.92-102.
- Haefele, D. L. (2019). Evaluating Teachers: An Alternative Model. *Journal of personnel evaluation in education*, 5(4), 335-45.
- Jin, Y., & Harp, C. (2020). Examining preservice teachers' TPACK, attitudes, self-efficacy, and perceptions of teamwork in a stand-alone educational technology course using flipped classroom or flipped team-based learning pedagogies. *Journal of Digital Learning in Teacher Education*, 36(3), 166-184.
- Lou. Y.Y. (2018). Research on Teacher Leadership in School Development. Master thesis, East China Normal University.

- Mestry, R. and Govindasamy, V., 2021. The Perceptions of School Management Teams and Teachers of the Principal's Instructional Leadership Role in Managing Curriculum Changes. *Interchange*, 52(4), pp.545-560.
- Muirhead, M.S., Tyler, R.L. and Madlene, P., TITLE Study of Whole School Reform Implementation in New Jersey Abbott Districts: Perceptions of Key Stakeholders. Final.
- Ogundile, O. P., Bishop, S. A., Okagbue, H. I., Ogunniyi, P. O., & Olanrewaju, A. M. (2019). Factors influencing ICT adoption in some selected secondary schools in Ogun state, Nigeria. *International Journal of Emerging Technologies in Learning*, 14(10), 62-74.
- Oh, J., Lee, H., & Zo, H. (2019). The effect of leadership and teamwork on ISD project success. *Journal of Computer Information Systems*.
- Padayachee, A.S., 2021. Exploring the use of collaborative strategies by school management teams to sustain learner discipline in secondary schools (Doctoral dissertation, University of the Free State).
- Polega, M., Neto, R. D. C. A., Brilowski, R., & Baker, K. (2019). Principals and teamwork among teachers: an exploratory study. *Revista@ mbienteducação*, 12(2), 12-32.
- Pujar, P. M., Kenchannavar, H. H., Kulkarni, R. M., & Kulkarni, U. P. (2020). Real-time water quality monitoring through Internet of Things and ANOVA-based analysis: A case study on river Krishna. *Applied Water Science*, 10(1), 1-16.
- Rapp, A. A., Petersen, J. A., Hughes, D. E., & Ogilvie, J. L. (2020). When time is sales: the impact of sales manager time allocation decisions on sales team performance. *Journal of Personal Selling & Sales Management*, 40(2), 132-148.
- Riskin, Arie & Erez, Amir & Foulk, Trevor & Kugelman, Amir & Gover, Ayala & Shoris, Irit & Riskin, Kinneret & Bamberger, Peter. (2015). The Impact of Rudeness on Medical Team Performance: A Randomized Trial. *Pediatrics*. 136. 10.1542/peds.2015-1385.
- Sanderson, J., Esfahbodi, A., & Lonsdale, C. (2022). The effect of team-member knowledge, skills and abilities (KSAs) and a common learning experience on sourcing teamwork effectiveness. *International Journal of Physical Distribution & Logistics Management*, (ahead-of-print).
- Sekgota, L.L., 2020. The role of school management teams in addressing the challenges that inhibit teamwork in Mopani District, Limpopo Province (Doctoral dissertation).
- Setlhodi, the author.the author., 2020. Collaboration practices between the two tiers of school leadership in eradicating underperformance. *South African Journal of Education*, 40(3).
- Shava, G., Maradze, A. and Ncube, C.N., 2021. Transforming School Leadership to enhance a Culture of Quality Teaching and Learning in Zimbabwean Rural Schools. *Indiana Journal of Humanities and Social Sciences*, 2(11), pp.9-16.
- Sunker, S., 2021. The Role of School Management Teams in Designing and Implementing Continuous Professional Development Programmes for Secondary School Teachers (Doctoral dissertation, University of Johannesburg).
- Tigere, M.T., 2020. Perceptions of school management teams on information and communication technology integration in township and rural secondary schools in KwaZulu-Natal (Doctoral dissertation).
- Xu, C. H. (2016) Research on middle school teachers' cooperation. Master thesis, Shandong Normal University.
- Yu, J. (2017) . Research on the team cooperation model of primary school teachers. Master thesis, Shandong Normal University.
- Yuan, Z. R. (2019) A Study on Current Situation, Problems and Countermeasures of the Primary Teacher's Cooperation——Taking G School as an example. Master thesis, Shenzhen University.

- Zacharia, R., 2021. Incorporating soft skills in managing ordinary level public secondary schools by head of schools in Tanzania: a case study of Ilala Municipal, Doctoral dissertation, The University of Dodoma.
- Zhan, N. (2020). Research on the influencing factors of teachers' teamwork. Master thesis, East China Normal University.
- Zhang, Q. F, Li, X. Y, & Liu, N. (2021). A study on the influencing factors of teachers' teamwork behavior. *Research on Higher Engineering Education* (1), 5.
- Zhang, X. M., & Zhou, J. (2020). How team heterogeneity affects school teaching and research team performance -- An Empirical Analysis Based on the mediating role of team conflict. *Educational research and experiment* (3), 7.
- Zwane, T.T., 2018. Empowering School Management Teams of No-fee Schools to Actively Participate in School Financial Management. University of Johannesburg (South Africa).