



# Optimizing Teaching Empowerment: The Impact of Work Motivation, Professional Competence, and Organizational Culture on Teacher's Self-Efficacy

Paramudita Chintya Putri<sup>1\*</sup>, Lia Yuliana<sup>1</sup>

<sup>1</sup> University of Yogyakarta, Yogyakarta, Indonesia.

Received: January 25, 2024

Revised: March 12, 2024

Accepted: April 25, 2024

Published: April 30, 2024

Corresponding Author:  
Paramudita Chintya Putri  
[chintyap06@gmail.com](mailto:chintyap06@gmail.com)

DOI: [10.29303/jppipa.v10i4.7078](https://doi.org/10.29303/jppipa.v10i4.7078)

© 2024 The Authors. This open access article is distributed under a (CC-BY License)



**Abstract:** This study aims to determine the effect of work motivation, teacher professional competence, and organizational culture on teacher self-efficacy at MTS Asy Syaafi Iyyah and SMP PGRI 1 Kuwarasan after the Covid-19 pandemic. This type of research is ex-post facto with a quantitative approach. The study population was 38 teachers at MTS Asy Syaafi Iyyah and SMP PGRI 1 Kuwarasan. Determination of the research sample of 35 teachers using simple random sampling technique. Instrument validation using expert judgment and empirical test with Pearson Product Moment correlation. Instrument reliability test was conducted with Cronbach's Alpha. The analysis requirements test was carried out by testing normality, linearity, and multicollinearity. Simple linear regression was performed as data analysis to test the effect of each independent variable (1, 2, 3) on the dependent variable (Y) and multiple linear regression was performed as data analysis to test the effect of independent variables (1, 2, 3) simultaneously on the dependent variable (Y). The results showed that: there is a positive and significant influence between work motivation on teacher self efficacy of 31.70% with a value of  $t = 4.08$  and  $Sig = 0.000$ ; there is a positive and significant influence between teacher professional competence on teacher self efficacy of 42.70% with a value of  $t = 5.183$  and  $Sig = 0.000$ ; there is a positive and significant influence between teacher professional competence on teacher self efficacy by 42.50% with a value of  $t = 5.158$  and  $Sig = 0.000$ ; and there is a simultaneous positive and significant influence between work motivation, teacher professional competence, and organizational culture on teacher self efficacy by 54% with a value of  $F = 13306$  and  $Sig = 0.000$ .

**Keywords:** Organizational culture; Professional competence; Teacher self-efficacy; Work motivation

## Introduction

The challenges of globalization and the knowledge revolution demand changes in education, and require school organizations to keep up with advances in science and technology (Clarke et al., 2023; Wondimagegene et al., 2023). Therefore, schools must be flexible and adaptable to maintain school quality. Based on this, it can be concluded that the school organization is a complex adaptive system that values its quality for change towards positive growth (Hartman, 2023; Jacobson et al., 2019; Knight, 2022). One of the big

challenges faced by teachers in the era of the industrial revolution 4.0, is adaptation and literacy, where technology and information can provide a lot of knowledge to anyone who can access it (Haleem et al., 2022; Dwivedi et al., 2023; Dhawan, 2020).

The changes that have occurred after the COVID-19 pandemic have made it a challenge for principals, teachers and students to deal with changes in learning models that are considered more effective to use (Ahmed Alismail, 2023; Heikonen et al., 2024). Regulations in education have changed after the COVID-19 pandemic, both in terms of regulations and

### How to Cite:

Chintya Putri, P., & Yuliana, L. (2024). Optimizing Teaching Empowerment: The Impact of Work Motivation, Professional Competence, and Organizational Culture on Teacher's Self-Efficacy. *Jurnal Penelitian Pendidikan IPA*, 10(4), 1599–1605. <https://doi.org/10.29303/jppipa.v10i4.7078>

demands for the implementation of the learning system. As a result of the pandemic, the acceptance and use of technology is inevitable compared to normal conditions.

Thus, it is important to maximize the use of technology for education (Smith et al., 2023). Teachers are the main component in teaching and learning activities (Vermunt et al., 2023). In addition to being a bright figure who can regulate the behavior of students (Darling-Hammond et al., 2020), teachers are also required to identify new problems faced in learning after the pandemic and carry out fun learning and ensure learning activities to remain effective, innovative and run optimally (Ong & Quek, 2023).

Each teacher has different self-efficacy, which is a belief about their ability to complete their professional tasks and teaching tasks under certain conditions. Teachers' self-efficacy is related to teachers' psychological work, such as job stress, burnout or satisfaction and is directly related to school climate (Capone et al., 2019). Efforts should be made by school principals to support teachers in improving teachers' psychological well-being to face the challenges of teaching in the current pandemic era. Teachers' confidence in their professional abilities in the school climate can help increase their motivation, job satisfaction, commitment and self-improvement. Motivation greatly influences a person in action, thus motivation is an impetus that arises in a person to behave in achieving predetermined goals (Paais & Pattiruhu, 2020). Motivation is a psychological state whose manifestations can be known through behavior. Motivation can also increase enthusiasm and self-confidence in carrying out an activity, both internally and externally depending on how strong the motivation is and will determine the quality of behavior shown in the context of learning, working, and daily life.

Teachers in carrying out their duties are influenced by motivation within the individual and from outside the individual. In teaching and learning activities, the role of motivation, both internal and external, is very necessary, because with motivation, teachers can develop activity and initiative, and can direct and maintain perseverance in carrying out learning activities. Teachers have different work motivation from one teacher to another. The demands on teachers related to professional abilities can be seen in Law No. 14 of 2005 concerning Teachers and Lecturers. After the COVID-19 pandemic, teachers are required to master and develop subject matter creatively, as well as utilize information and communication technology (ICT) to communicate and develop themselves. Through good mastery of the material, teachers will find it easier to carry out learning and students will find it easier in the learning process

(Gray et al., 2023; Marco & Palatnik, 2024; Rios et al., 2024). With mature mastery of the material, it can encourage teachers' self-efficacy in carrying out learning activities. Obstacles in learning after the COVID-19 pandemic, including the inability of teachers to master subject matter, use methods, learning media, manage classes, motivate students which can affect the implementation of effective and quality learning.

Organizational culture is a shared experience experienced by people in a particular organization. Organizational culture is the characteristics that provide values to an organization, so that the organization has distinctive characteristics that distinguish it from other organizations (Jönsson & Scaramuzzino, 2022). Culture as an independent variable that can affect member behavior in increasing self-efficacy (Wawrosz & Jurásek, 2021). The existence of COVID-19 causes cultural changes in schools that affect the behavior of school members such as teachers and also affect the self-efficacy given. Factors that can shape individual self-efficacy are direct individual experience, social modeling, and psychological turmoil when individuals are under pressure (Supervía et al., 2022). These three factors are closely related to the organizational culture in schools, where teachers move and relate socially with other school members.

The problem in this study is about the factors that influence teacher self-efficacy, which is important for principals and teachers themselves to pay more attention to performance and confidence when teaching in the classroom. So, this problem is worth researching because teachers with high self-efficacy will have good performance and can improve the quality of learning and school quality. The obstacles in this study are the lack of population and samples studied, the lack of teacher cooperation when collecting data, and closed questions in the questionnaire that cannot explore more about work motivation, teacher professional competence, organizational culture, and teacher self-efficacy.

Based on the description above, researchers are interested in examining work motivation, teacher professional competence, and organizational culture on teacher self-efficacy at MTS Asy Syaafi Iyyah and SMP PGRI 1 Kuwarasan after the Covid-19 pandemic.

## Method

The type of research used in this study is quantitative. The data collection technique used in this research is a questionnaire, a widely employed tool that allows respondents to express their degree of agreement or disagreement with given statements on a numerical scale. The research instrument used was a questionnaire

with a Likert scale. This research was conducted at MTS Asy Syaafi'iyah and SMP PGRI 1 Kuwarasan in July-August 2022.

## Result and Discussion

### Result

#### Description of Work Motivation (X1)

Based on Table 1, it can be interpreted that the work motivation of teachers at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah is included in the "medium" category.

**Table 1.** Category Distribution of Work Motivation

Interval Score	Category	Frequency	Frequency Relative (%)
$X < 30$	Low	0	0
$30 \leq X < 45$	Medium	36	95
$X \geq 45$	High	2	5
Total		38	100

#### Description of Teacher Professional Competence (X2)

Based on Table 2, it can be interpreted that the professional competence of teachers at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah is included in the "high" category.

**Table 2.** Category Distribution of Teacher Professional Competence

Interval Score	Category	Frequency	Frequency Relative (%)
$X < 32$	Low	0	0
$32 \leq X < 48$	Medium	18	47
$X \geq 48$	High	20	53
Total		38	100

#### Description of Organizational Culture (X3)

Based on Table 3, it can be interpreted that the organizational culture of teachers at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah is included in the "high" category.

**Table 3.** Organizational Culture Category Distribution

Interval Score	Category	Frequency	Frequency Relative (%)
$X < 32$	Low	0	0
$32 \leq X < 48$	Medium	4	11
$X \geq 48$	High	34	89
Total		38	100

#### Description of Teacher Self Efficacy (Y)

**Table 4.** Category Distribution of Teacher Self Efficacy

Interval Score	Category	Frequency	Frequency Relative (%)
$X < 26$	Low	0	0
$26 \leq X < 39$	Medium	18	47
$X \geq 39$	High	20	53
Total		38	100

Based on Table 17, it can be interpreted that the self-efficacy of teachers at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah is included in the "high" category.

### Discussion

#### The Effect of Work Motivation on Teacher Self Efficacy (X1×Y)

Based on the results of the study, it can be seen that Ha1 is accepted and H01 is rejected. The results showed that the effect of work motivation variables on teacher self efficacy was 31.70% and the remaining 68.30% was influenced by other variables not examined. So, it can be concluded that there is a positive and significant influence between work motivation and teacher self efficacy of 31.70% Based on the analysis of the research results, it can be explained that teachers at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah have work motivation in the moderate category. This shows that the teacher's work motivation is quite good. Teachers who have high work motivation will be encouraged and try to improve their abilities in planning (Khan et al., 2020), implementing, and evaluating learning so as to get maximum work results (Karlen et al., 2023a). There are three functions of motivation, namely (Van Der Kooij et al., 2021; Veraksa et al., 2022): Encouraging humans to do; Determining the direction of action, namely towards the goal to be achieved; Selecting actions, namely determining what actions must be done that are suitable for achieving goals, by setting aside actions that are not beneficial to these goal.

#### The Effect of Teacher Professional Competence on Teacher Self Efficacy (X2×Y)

Based on the results of the study, it can be seen that Ha2 is accepted and H02 is rejected. The results showed that the effect of teacher professional competence variables on teacher self efficacy was 42.70% and the remaining 57.30% was influenced by other variables not examined. So, it can be concluded that there is a positive and significant influence between teacher professional competence and teacher self efficacy by 42.70%. Professional competence and teacher self-efficacy at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'iyah based on the analysis of research results are included in the high category. These results are in line with previous research which states that there are a positive and significant relationship between teacher professional competence and teacher self-efficacy (Dai, 2023; Karlen et al., 2023b; Liu & Yin, 2024). This shows that the professional competence and self efficacy of teachers are very good (Lauer mann & König, 2016; Şen & Yildiz Durak, 2022). The highest professional competence of teachers in this study is mastering the material, structure, concepts, and scientific mindset that supports the subjects taught. In carrying out their duties, teachers

are required to have basic abilities in order to deliver learning that attracts the attention of students (Weng et al., 2023; Xu et al., 2023).

#### *The Effect of Organizational Culture Competence on Teacher Self Efficacy (X3×Y)*

Based on the results of the study, it can be seen that Ha3 is accepted and H03 is rejected. The results showed that the effect of organizational culture variables on teacher self efficacy was 42.50% and the remaining 57.50% was influenced by other variables not examined. So, it can be concluded that there is a positive and significant influence between organizational culture and teacher self efficacy by 42.50%. Organizational culture and teacher self-efficacy at SMP PGRI 1 Kuwarasan and Mts Asy Syaafi'yyah based on the analysis of research results are included in the high category. This shows that the organizational culture and self-efficacy of teachers are very good. School culture has an important role in creating an effective school (Taajamo et al., 2023). School culture will foster feelings in teachers about how to behave, confidence in their profession, and determine the priority scale of tasks. This result is in line with research Wondimagegene et al. (2023), Huang et al. (2020), and Yao et al. (2024) who said that there is a positive and significant influence between organizational culture on teacher self-efficacy.

#### *Effect of Work Motivation, Teacher Professional Competence, and Organizational Culture Together on Teacher Self Efficacy*

Based on the research results, Ha4 is accepted and H04 is rejected. The results showed that the effect of work motivation variables, teacher professional competence, and organizational culture together on teacher self-efficacy was 54% and the remaining 46% was influenced by other variables not examined. So, it can be concluded that there is a positive and significant influence between work motivation, teacher professional competence, and organizational culture together on teacher self efficacy by 54%. These results are not in line with research conducted by (L. Huang et al., 2020) & (Şahin et al., 2024) who said that work motivation, teacher professional competence, and organizational culture jointly affect teacher self-efficacy.

### **Conclusion**

Based on the findings revealed in the research results and analysis, several important things can be concluded. First, there is a positive and significant influence between work motivation on teacher self-efficacy at MTS Asy Syaafi'yyah and SMP PGRI 1, with an influence level of 31.70%. Second, teacher professional competence also has a positive and

significant influence on teacher self-efficacy in both schools, with an influence level reaching 42.70%. Furthermore, organizational culture also makes a positive and significant contribution to teacher self-efficacy at MTS Asy Syaafi'yyah and SMP PGRI 1, with an influence level of 42.50%. Finally, the results show that work motivation, teacher professional competence, and organizational culture, together, have a positive and significant influence on teacher self-efficacy at MTS Asy Syaafi'yyah and SMP PGRI 1 Kuwarasan, with an influence level reaching 54%. This conclusion provides an in-depth understanding of the factors that influence the level of teacher self-efficacy in both schools, and the implication is that it can serve as a foundation for improving the quality of teaching and teacher empowerment in the future.

### **Acknowledgments**

I would like to thank the teachers at MTS Asy Syaafi'yyah and SMP PGRI 1 who participated in helping with this research. Many thanks to my supervisor Prof. Dr. Lia Yuliana, M.Pd for her advice and support throughout y degree. Without her invaluable and motivating feedback, this research would never have been completed. All opinions, shortcomings and errors remain my own.

### **Author Contributions**

Conceptualization: P.C.P and L.Y.; methodology: P.C.P.; validation: L.Y.; formal analysis: P.C.P, and L.Y.; data curation: P.C.P.; writing—original draft preparation: P.C.P.; writing—review and editing: L.Y.; visualization: P.C.P.; supervision: L.Y. All authors have read and agreed to the published version of the manuscript.

### **Funding**

This research received no external funding.

### **Conflicts of Interest**

The authors declare no conflict of interest.

### **References**

- Ahmed Alismail, H. (2023). Teachers' perspectives of utilizing distance learning to support 21st century skill attainment for K-3 elementary students during the COVID-19 pandemic era. *Heliyon*, 9(9), e19275. <https://doi.org/10.1016/j.heliyon.2023.e19275>
- Capone, V., Joshanloo, M., & Park, M. S.-A. (2019). Burnout, depression, efficacy beliefs, and work-related variables among school teachers. *International Journal of Educational Research*, 95, 97–108. <https://doi.org/10.1016/j.ijer.2019.02.001>
- Clarke, E., Smith, F. T., Willis, E. A., Herr, M., & Ward, D. S. (2023). Go NAPSACC On-Demand Trainings for Early Care and Education Providers: Development and Dissemination. *Journal of*

- Nutrition Education and Behavior*, 55(1), 48–54.  
<https://doi.org/10.1016/j.jneb.2022.07.001>
- Dai, W. (2023). An empirical study on English preservice teachers' digital competence regarding ICT self-efficacy, collegial collaboration and infrastructural support. *Heliyon*, 9(9), e19538.  
<https://doi.org/10.1016/j.heliyon.2023.e19538>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140.  
<https://doi.org/10.1080/10888691.2018.1537791>
- Davis, S. C. (2023). Engaging faculty in data use for program improvement in teacher education: How leaders bridge individual and collective development. *Teaching and Teacher Education*, 129, 104147.  
<https://doi.org/10.1016/j.tate.2023.104147>
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22.  
<https://doi.org/10.1177/0047239520934018>
- Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koochang, A., Raghavan, V., Ahuja, M., Albanna, H., Albashrawi, M. A., Al-Busaidi, A. S., Balakrishnan, J., Barlette, Y., Basu, S., Bose, I., Brooks, L., Buhalis, D., ... Wright, R. (2023). Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642.  
<https://doi.org/10.1016/j.ijinfomgt.2023.102642>
- Gray, S., Sandford, R., Quarmby, T., & Hooper, O. (2023). Exploring pre-service physical education teachers' trauma-related learning experiences in schools. *Teaching and Teacher Education*, 132, 104212.  
<https://doi.org/10.1016/j.tate.2023.104212>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275–285.  
<https://doi.org/10.1016/j.susoc.2022.05.004>
- Hartman, S. (2023). Destination governance in times of change: A complex adaptive systems perspective to improve tourism destination development. *Journal of Tourism Futures*, 9(2), 267–278.  
<https://doi.org/10.1108/JTF-11-2020-0213>
- Heikonen, L., Ahtiainen, R., Hotulainen, R., Oinas, S., Rimpelä, A., & Koivuhovi, S. (2024). Collective teacher efficacy, perceived preparedness for future school closures and work-related stress in the teacher community during the COVID-19 pandemic. *Teaching and Teacher Education*, 137, 104399.  
<https://doi.org/10.1016/j.tate.2023.104399>
- Huang, L., Zhang, T., & Huang, Y. (2020). Effects of school organizational conditions on teacher professional learning in China: The mediating role of teacher self-efficacy. *Studies in Educational Evaluation*, 66, 100893.  
<https://doi.org/10.1016/j.stueduc.2020.100893>
- Huang, Y., Xu, Y., Zhang, J., Long, Z., Qian, Z., Liu, W., & Chen, L. (2024). Research on factors influencing the academic entrepreneurial ability of teachers in the digital age: Evidence from China. *Heliyon*, 10(2), e24152.  
<https://doi.org/10.1016/j.heliyon.2024.e24152>
- Jacobson, M. J., Levin, J. A., & Kapur, M. (2019). Education as a Complex System: Conceptual and Methodological Implications. *Educational Researcher*, 48(2), 112–119.  
<https://doi.org/10.3102/0013189X19826958>
- Jönsson, A., & Scaramuzzino, R. (2022). Distinctive character and added value of civil society organizations – A collaborative project within the Swedish integration system. *Nordic Social Work Research*, 1–13.  
<https://doi.org/10.1080/2156857X.2022.2104348>
- Karlen, Y., Hirt, C. N., Jud, J., Rosenthal, A., & Eberli, T. D. (2023a). Teachers as learners and agents of self-regulated learning: The importance of different teachers competence aspects for promoting metacognition. *Teaching and Teacher Education*, 125, 104055.  
<https://doi.org/10.1016/j.tate.2023.104055>
- Karlen, Y., Hirt, C. N., Jud, J., Rosenthal, A., & Eberli, T. D. (2023b). Teachers as learners and agents of self-regulated learning: The importance of different teachers competence aspects for promoting metacognition. *Teaching and Teacher Education*, 125, 104055.  
<https://doi.org/10.1016/j.tate.2023.104055>
- Khan, H., Rehmat, M., Butt, T. H., Farooqi, S., & Asim, J. (2020). Impact of transformational leadership on work performance, burnout and social loafing: A mediation model. *Future Business Journal*, 6(1), 40.  
<https://doi.org/10.1186/s43093-020-00043-8>
- Knight, B. (2022). Classroom as Complex Adaptive System and the Emergence of Learning. In H. Şenol (Ed.), *Education and Human Development* (Vol. 1). IntechOpen.  
<https://doi.org/10.5772/intechopen.101699>
- Lauermann, F., & König, J. (2016). Teachers' professional competence and wellbeing: Understanding the links between general pedagogical knowledge,

- self-efficacy and burnout. *Learning and Instruction*, 45, 9–19. <https://doi.org/10.1016/j.learninstruc.2016.06.006>
- Liu, S., & Yin, H. (2024). Opening the black box: How professional learning communities, collective teacher efficacy, and cognitive activation affect students' mathematics achievement in schools. *Teaching and Teacher Education*, 139, 104443. <https://doi.org/10.1016/j.tate.2023.104443>
- Marco, N., & Palatnik, A. (2024). From “learning to variate” to “variate for learning”: Teachers learning through collaborative, iterative context-based mathematical problem posing. *The Journal of Mathematical Behavior*, 73, 101119. <https://doi.org/10.1016/j.jmathb.2023.101119>
- Ong, S. G. T., & Quek, G. C. L. (2023). Enhancing teacher-student interactions and student online engagement in an online learning environment. *Learning Environments Research*, 26(3), 681–707. <https://doi.org/10.1007/s10984-022-09447-5>
- Owan, V. J., Odigwe, F. N., Okon, A. E., Duruamaku-Dim, J. U., Ubi, I. O., Emanghe, E. E., Owan, M. V., & Basse, B. A. (2022). Contributions of placement, retraining and motivation to teachers' job commitment: Structural equation modelling of the linkages. *Heliyon*, 8(4), e09334. <https://doi.org/10.1016/j.heliyon.2022.e09334>
- Paais, M., & Pattiruhu, J. R. (2020). Effect of Motivation, Leadership, and Organizational Culture on Satisfaction and Employee Performance. *The Journal of Asian Finance, Economics and Business*, 7(8), 577–588. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.577>
- Rios, G. N., Mendoza, K. G., Fabian, H. M., Reales, K., & Pertuz, D. del C. O. (2024). Methodological strategies and techniques implemented by teachers in the teaching-learning process of English in Spanish-speaking students. *Procedia Computer Science*, 231, 508–513. <https://doi.org/10.1016/j.procs.2023.12.242>
- Şahin, E., Sarı, U., & Şen, Ö. F. (2024). STEM professional development program for gifted education teachers: STEM lesson plan design competence, self-efficacy, computational thinking and entrepreneurial skills. *Thinking Skills and Creativity*, 51, 101439. <https://doi.org/10.1016/j.tsc.2023.101439>
- Şen, N., & Yildiz Durak, H. (2022). Examining the Relationships Between English Teachers' Lifelong Learning Tendencies with Professional Competencies and Technology Integrating Self-Efficacy. *Education and Information Technologies*, 27(5), 5953–5988. <https://doi.org/10.1007/s10639-021-10867-8>
- Smith, R. C., Schaper, M.-M., Tamashiro, M. A., Van Mechelen, M., Petersen, M. G., & Iversen, O. S. (2023). A research agenda for computational empowerment for emerging technology education. *International Journal of Child-Computer Interaction*, 38, 100616. <https://doi.org/10.1016/j.ijcci.2023.100616>
- Supervía, U. P., Bordás, S. C., & Robres, Q. A. (2022). The mediating role of self-efficacy in the relationship between resilience and academic performance in adolescence. *Learning and Motivation*, 78, 101814. <https://doi.org/10.1016/j.lmot.2022.101814>
- Taajamo, M., Jäppinen, A.-K., & Nissinen, K. (2023). Understanding the essential elements of school culture in global contexts: Exploring the TALIS 2018 data on school principals. *International Journal of Leadership in Education*, 1–25. <https://doi.org/10.1080/13603124.2023.2234859>
- Van Der Kooij, K., In 't Veld, L., & Hennink, T. (2021). Motivation as a function of success frequency. *Motivation and Emotion*, 45(6), 759–768. <https://doi.org/10.1007/s11031-021-09904-3>
- Veraksa, A., Gavrilova, M., & Lepola, J. (2022). Learning motivation tendencies among preschoolers: Impact of executive functions and gender differences. *Acta Psychologica*, 228, 103647. <https://doi.org/10.1016/j.actpsy.2022.103647>
- Vermunt, J. D., Vrikki, M., Dudley, P., & Warwick, P. (2023). Relations between teacher learning patterns, personal and contextual factors, and learning outcomes in the context of Lesson Study. *Teaching and Teacher Education*, 133, 104295. <https://doi.org/10.1016/j.tate.2023.104295>
- Wawrosz, P., & Jurásek, M. (2021). Developing Intercultural Efficiency: The Relationship between Cultural Intelligence and Self-Efficacy. *Social Sciences*, 10(8), 312. <https://doi.org/10.3390/socsci10080312>
- Weng, C., Chen, C., & Ai, X. (2023). A pedagogical study on promoting students' deep learning through design-based learning. *International Journal of Technology and Design Education*, 33(4), 1653–1674. <https://doi.org/10.1007/s10798-022-09789-4>
- Wondimagegne, Y. A., Debelew, G. T., & Koricha, Z. B. (2023). Effectiveness of peer-led education intervention on contraceptive use, unmet need and demand among secondary school adolescents in Gedeo Zone, South Ethiopia. A study protocol for cluster randomized controlled trial. *Clinical Epidemiology and Global Health*, 21, 101289. <https://doi.org/10.1016/j.cegh.2023.101289>

- Xu, E., Wang, W., & Wang, Q. (2023). The effectiveness of collaborative problem solving in promoting students' critical thinking: A meta-analysis based on empirical literature. *Humanities and Social Sciences Communications*, 10(1), 16. <https://doi.org/10.1057/s41599-023-01508-1>
- Yao, H., Liu, W., & Chen, S. (2024). Teachers sustainable teaching innovation and graduate students creative thinking: The chain mediating role of playfulness climate and academic self-efficacy. *The International Journal of Management Education*, 22(1), 100900. <https://doi.org/10.1016/j.ijme.2023.100900>