Effects Study on the Impact of Teachers’ Information Technology Leadership on Teaching Efficacy

By Yu, T.Z. & Zhang, X.F.

WHAT is the impact of teachers’ information technology leadership on the effectiveness of information-based teaching? Based on the analysis of relevant literature, a recent study published in Teacher Education Research designed a scale with teaching leadership, professional leadership, management implementation, and communication and collaboration as the key factors of teacher information technology leadership. The researchers distributed questionnaires to schools in Kaifeng, Luoyang, Xinyang, Nanyang, Zhumadian, and other cities in Henan Province. A total of 1,166 questionnaires were collected, and 996 were obtained after eliminating invalid ones. On the basis of reliability and validity analysis, the data were further analyzed, and the function path model of teachers’ information technology leadership on information teaching efficiency was generated. The following results are obtained:

- From the overall effect analysis, the influence degree of information-based communication and cooperation, information-based professional leadership, and information-based teaching leadership on the information-based teaching effectiveness are successively reduced, among which the information-based management execution has little influence on the information-based teaching effectiveness.

- From the perspective of direct effect analysis, the greatest influence on the effectiveness of information-based teaching is the information-based teaching leadership, followed by the information-based professional leadership and the information-based communication and collaboration.

- From the perspective of indirect effects and mediating variables, information-based teaching leadership and information-based professional leadership are the key factors. Information-based communication and collaboration can indirectly improve the promotion of information-based teaching functions through information-based professional leadership and information-based teaching leadership.
From the perspective of the influence degree of each index of the measurement model, the four factors that have the greatest impact on the effectiveness of information-based teaching are the belief in online supervision and guidance of students’ learning, the perception in planning extracurricular learning activities, the confidence in effectively integrated digital resources, and the confidence in scientific design of information-based classroom activities. The biggest influence on information-based teaching leadership is to develop the teaching content by using information technology. What has the greatest influence on information-based professional leadership is the enthusiasm of paying attention to the frontier of information technology, using information technology to update the subject knowledge, and driving colleagues to learn and apply information technology. It is important to communicate with parents to understand their aspirations, to communicate with students to grasp the learning situation, and to discuss disciplinary issues in collaboration with peers.

Based on the data analysis results and from the perspective of teachers’ information technology leadership, this paper proposed relevant suggestions for improving the effectiveness of informational teaching:

- Create a positive atmosphere and play the leading role.
- Strive to the technology enhancement and pursue the scientific blend.
- Pay attention to the radiation effect and fix the cooperation mode.
- Focus on teaching leadership and dig deep into digital resources.
- Concentrate on extracurricular guidance and combine the online and offline.